

Contract No.: 233-02-0056
MPR Reference No.: 8935-090

MATHEMATICA
Policy Research, Inc.

Building Strong Families: The Evaluation Design

October 5, 2006

*Sheena McConnell
Robert Wood
Barbara Devaney
Sarah Avellar
M. Robin Dion
Heather H. Zaveri*

Submitted to:

U.S. Department of Health and Human Services
Administration for Children and Families
Office of Planning, Research, and Evaluation
7th Floor, West, Aerospace Center Building
370 L'Enfant Promenade, SW
Washington, DC 20447

Project Officer:
Nancye Campbell

Submitted by:

Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-2393
Telephone: (609) 799-3535
Facsimile: (609) 799-0005

Project Director: Alan Hershey

Survey Director:
Welmoet Van Kammen

CONTENTS

Chapter	Page
I	INTRODUCTION..... 1
A.	BSF PROGRAM OVERVIEW..... 2
1.	BSF Program Components..... 3
2.	BSF Eligibility..... 6
3.	BSF Demonstration Sites 7
B.	BSF CONCEPTUAL FRAMEWORK 8
II	IMPLEMENTATION ANALYSIS 13
A.	OBJECTIVES AND RESEARCH QUESTIONS..... 13
B.	DATA SOURCES..... 15
1.	Field Data Collection 16
2.	MIS Data Collection..... 22
C.	ANALYSIS METHODS..... 22
1.	Description of Sites' Implementation 22
2.	Analysis of Variation in Implementation 24
3.	Identifying Promising Practices 28
III	IMPACT ANALYSIS 31
A.	OBJECTIVES AND RESEARCH QUESTIONS..... 31
B.	EXPERIMENTAL DESIGN..... 32
1.	BSF Intake Procedures 33
2.	Determining the Counterfactual 37
C.	SAMPLE DESIGN 39
1.	Sample Frame, Intake Period, and Sample Size..... 40
2.	Statistical Precision 41

CONTENTS *(continued)*

Chapter	Page
III. <i>(continued)</i>	
D. ANALYSIS PLAN.....	44
1. Impacts for Subgroups	45
2. Impacts According to How and Where BSF is Implemented	46
3. Impacts on Relationship Quality and Other Outcomes Dependent on Relationship Status.....	48
4. Impacts of Program Participation.....	52
5. Pathways through which Impacts Occur.....	55
6. Survey Non-Response	56
IV DATA COLLECTION FOR THE IMPACT ANALYSIS	59
A. DATA NEEDS.....	59
1. Baseline Data.....	59
2. Data on Outcomes	65
B. DATA SOURCES.....	70
1. Baseline Data Collection.....	70
2. Outcomes Data Collection	71
C. DATA COLLECTION PLAN	72
1. Baseline Data Collection.....	72
2. Follow-Up Data Collection: Surveys and Assessments.....	73
V OUTCOME MEASURES FOR THE IMPACT ANALYSIS	77
A. CRITERIA FOR SELECTING MEASURES.....	78
B. MEASURES OF SERVICE RECEIPT.....	80
C. MEASURES OF THE PARENTS' RELATIONSHIP	81
1. Marital and Relationship Status	81
2. Attitudes toward Marriage.....	82
3. Relationship Quality.....	83
4. Co-Parenting.....	93
5. Relationships with New Partners	94

CONTENTS *(continued)*

Chapter		Page
V. <i>(continued)</i>		
	D. MEASURES OF FAMILY OUTCOMES	95
	1. Parenting and Father Involvement	95
	2. Family Structure	100
	3. Family Self-Sufficiency and Economic Well-being	102
	4. Parent Well-Being	109
VI	NEXT STEPS	119
	REFERENCES	121
	APPENDIX A: KEY QUESTIONS FOR THE STUDY OF BSF PROGRAM IMPLEMENTATION	
	APPENDIX B: PROTOCOL FOR FOCUS GROUPS WITH PARTICIPANT COUPLES	
	APPENDIX C: GUIDE FOR BRIEF TELEPHONE CALLS WITH PROGRAM DROPOUTS	
	APPENDIX D: BSF INTAKE FORMS	

TABLES

Table		Page
I.1	KEY FEATURES OF MARRIAGE AND RELATIONSHIP SKILLS CURRICULA	4
I.2	KEY FEATURES OF BSF SITES	9
II.1	MIS ITEMS AVAILABLE FOR THE IMPLEMENTATION ANALYSIS	23
II.2	IMPLEMENTATION INDICATORS	26
III.1	EXPECTED NUMBER OF COUPLES ENROLLED IN STUDY, BY SITE	40
III.2	MINIMUM IMPACTS DETECTABLE BY SAMPLE SIZE, FOR KEY OUTCOMES	42
III.3	HYPOTHETICAL TABLE ILLUSTRATING THE PRESENTATION OF IMPACTS ON OUTCOMES COMBINING RELATIONSHIP STATUS AND QUALITY	50
IV.1	BASELINE INFORMATION AND DATA SOURCES	61
IV.2	OUTCOMES AND THEIR DATA SOURCES	66
V.1	ASPECTS OF CONFLICT MANAGEMENT COVERED BY THE BSF 15-MONTH FOLLOW-UP SURVEY	87

FIGURES

Figure		Page
I.1	THE BUILDING STRONG FAMILIES PROGRAM COMPONENTS.....	3
I.2	BSF CONCEPTUAL FRAMEWORK.....	10
II.1	ILLUSTRATION OF FORM TO DOCUMENT GROUP WORKSHOP OBSERVATION.....	19
III.1	BSF INTAKE PROCEDURES	34
V.1	BSF CONCEPTUAL FRAMEWORK.....	77

I. INTRODUCTION

In recent years, concerns about the prevalence and consequences of nonmarital childbearing have grown dramatically. In 2003, the birth rate for unmarried women 15 to 44 years of age rose steeply to 44.9 births per 1,000 unmarried women and the number of births to unmarried women increased to the highest number ever recorded in national statistics (Martin et al. 2005). The proportion of all births to unmarried women reached 34.6 percent, continuing the upward trend observed since the late 1990s. Many children of unwed couples flourish, but research shows that, on average, they are at greater risk of living in poverty and developing social, behavioral, and academic problems compared with children growing up with their married biological parents (McLanahan and Sandefur 1994; Amato 2001).

Research suggests there may be opportunities to address this important policy concern. The 20-city *Fragile Families and Child Wellbeing Study* (<http://crew.princeton.edu/fragilefamilies>) shows that most unwed parents are romantically involved around the time their child is born, and anticipate marrying each other. Most agree that it is better for children if their parents are married. Nevertheless, the Fragile Families study shows that less than one-fifth of the couples are married three years later.

Building on the research findings from the Fragile Families Study, the Building Strong Families (BSF) project will determine whether well-designed interventions can help interested and romantically involved unwed parents build stronger relationships and, if they so choose, fulfill their hopes for a healthy marriage. Ultimately, these healthy marriages are expected to enhance child well-being.

BSF includes an evaluation with two main components: (1) a comprehensive implementation analysis; and (2) a rigorous impact analysis. The implementation analysis will

examine the development, implementation, and operations of BSF programs in local sites. The impact analysis will use an experimental design with longitudinal data collection. In BSF, eligible and interested couples will be randomly assigned to either a program group that receives services or to a control group that does not.

This report lays out the BSF evaluation design. This chapter provides an overview of BSF, presents the BSF conceptual framework, and outlines the evaluation design. The remaining chapters provide detail on the evaluation components: Chapter II describes the implementation analysis design; Chapter III presents the impact analysis design; Chapter IV outlines the data needs of the impact analysis and their sources; and Chapter V describes the evaluation outcome measures. The final chapter outlines the schedule for the BSF demonstration and evaluation.

A. BSF PROGRAM OVERVIEW

The BSF programs target parents before, or around the time of, their children's birth, and provide instruction and support to help couples develop the relationship skills that research has shown are associated with a healthy marriage. BSF programs include three components, as described in a set of program guidelines (Hershey et al. 2004) and presented in Figure I.1:

1. ***Healthy Marriage and Relationship Skills Education.*** This instruction covers the relationship skills that research indicates are essential to a healthy marriage as well as information to enhance couples' understanding of marriage. This instruction is provided in group sessions with BSF couples, usually held weekly. This is the core, distinctive component of BSF programs.
2. ***Family Support Services.*** These services address special issues that may be common among low-income parents and that are known to affect couple relationships and marriage. These services might, for example, help to improve parenting skills or provide linkages to address problems with employment, physical and mental health, or substance abuse.
3. ***Family Coordinators.*** These staff can assess couples' circumstances and needs, make referrals to other services when appropriate, reinforce relationship and marriage skills over time, provide ongoing emotional support, and promote sustained participation in program activities.

FIGURE I.1

THE BUILDING STRONG FAMILIES PROGRAM COMPONENTS

Weekly Group Sessions	Referrals to Support Services	Family Coordinators
Considering marriage Communication Building intimacy Avoiding relationship meltdown Managing the transition to parenthood Enhancing parent-infant relationships Managing complex family relationships Building trust and commitment Managing stress and emotions Family finances	Education Employment Parenting Physical health/mental health Child care Legal issues Substance abuse Domestic violence assistance	Assess and refer for support services Reinforce marriage and education skills Encourage participation and retention

1. BSF Program Components

a. Marriage and Relationship Skills Education

The core component of BSF—group instruction related to relationship skills and healthy marriage—requires up to 44 hours and is typically provided over a sustained period of time, as long as five or six months. Although local sites are free to select whatever marriage and relationship skills education curricula they prefer, the BSF project team defined specific content areas the curricula must cover for the site to be considered a BSF evaluation site. This ensures that there is a reasonable degree of consistency across the sites to facilitate evaluation, while at the same time providing local sites with some flexibility and choice. The required curriculum content areas are described in the BSF program guidelines (Hershey et al. 2004).

Prior to the development of the BSF program guidelines, almost all existing relationship skills curricula were written for married, middle-income couples. The BSF target population, however, differs from the married or engaged couples typically served by those program

curricula. They are not married or engaged, and are thus somewhat younger (although all BSF participants are adult parents over age 18). On average, they have lower incomes and educational levels and are more likely to be members of minority groups. They are expecting a baby or are the biological parents of a newborn.

Because of the unique circumstances and needs of unmarried parents, the BSF project team initiated a curriculum development effort to adapt and supplement existing marriage and relationship curricula for low-income unmarried parents having a baby. We identified three curricula (Table I.1) shown by research to have positive impacts on couples' relationships, and whose developers were interested in modifying the material for BSF couples: *Loving Couples, Loving Children*, developed by Drs. John and Julie Gottman; *Love's Cradle*, developed by Mary Ortwein and Dr. Bernard Guerney; and the adapted *Becoming Parents Program*, developed by Dr. Pamela Jordan. Although they were not required to do so, all seven sites selected one of these three curricula.

TABLE I.1
KEY FEATURES OF BSF MARRIAGE AND RELATIONSHIP SKILLS CURRICULA

	<i>Loving Couples, Loving Children</i>	<i>Love's Cradle</i>	<i>Becoming Parents (Adapted)</i>
Developers	John and Julie Gottman	Mary Ortwein and Bernard Guerney	Pamela Jordan
Original Curriculum	Bringing Baby Home	Relationship Enhancement	Becoming Parents Program
Length of Training for Group Leaders	5 Days, about 40 hours	2 two-day sessions, about 32 hours	4 days, about 32 hours
Recommended Minimum Qualifications for Group Leaders	Master's degree and experience working with groups or couples	Master's degree or 5 years experience with population	Master's degree and experience working with groups or couples
Recommended Group Size	4-6 couples	6-8 couples	10-15 couples
Total Hours	44 hours	42 hours	30 hours prenatal and 12 hours postnatal
Length of Sessions	2.5 hours	2 hours	3 to 6 hours
Frequency of Sessions	Weekly	Weekly	Weekly

These three curricula retain the substance and emphasis on skill building of the original curricula, with important modifications. Early on, focus groups with the BSF target population indicated that many unmarried couples have negative experiences with educational systems and do not want to be lectured at or told what to do. As a result, the modified curricula minimize didactic methods and use a more experiential approach, allowing couples to share and learn from their own and each other's experiences. To make the material more useful to couples with lower levels of education, the curricula are written at a fifth grade level and incorporate concrete examples instead of abstract or more general concepts. In addition, additional curriculum topics shown by previous research to be important for the BSF target population—topics such as understanding the benefits and challenges of marriage, building trust and commitment, dealing with children and partners from previous relationships, and communicating about finances.

b. Family Support Services

Unmarried parents face personal and family challenges that can impede their ability to form stable and healthy marriages—for example, limited education and employment skills, poor health, and difficulties in handling finances or in being an effective parent. Some unmarried parents may benefit from services that help them address these challenges and become more capable and attractive as marriage partners. BSF programs provide referrals to existing community programs and help couples access the services they need.

c. Family Coordinators

Parents enter BSF programs with varying needs as couples and individuals. Couples' needs are often complex; the vulnerability and instability of these families suggests that sustained program support to encourage participation and program completion is critical. Capable and

well-trained family coordinators can help meet these needs. Each family is assigned a coordinator whose role is to:

- Conduct initial and ongoing assessments of couple's relationship status and family needs
- Link families to services most appropriate for their needs
- Encourage ongoing program participation and completion
- Provide sustained emotional support
- Reinforce healthy relationship and marital skills

Family coordinators provide initial and ongoing assessment of couples' needs, and link participants to services that address barriers and support development of healthy relationships. They are trained to detect signs of domestic violence and refer couples or individuals to more appropriate services. They have knowledge of services to address physical or mental health issues, substance abuse, employment and education needs, or problems with child care or housing. Some services are available in-house through the agency that sponsors the BSF program; others come through community resources external to the core program. Family coordinators also ensure that couples are aware of government benefits for which they may qualify—for example food stamps or the Supplemental Nutrition Program for Women, Infants, and Children (WIC). Program sites differ in how frequently and long the couples meet with the family coordinators—in some sites they meet for up to three years.

2. BSF Eligibility

Couples are recruited for BSF either during pregnancy or shortly after their child is born. To be eligible for BSF, the mother and father must:

- Be expectant biological parents or the biological parents of a baby 3 months of age or younger

- Be in a romantic relationship
- Be 18 or older
- Be unmarried (or married since conception of the baby)
- Be available to participate in BSF and able to speak and understand a language in which BSF is offered
- Not engage in domestic violence that would be aggravated by participation in BSF

Although income is not an explicit eligibility criterion, BSF participants are generally low income for two main reasons. First, unmarried parents have lower average incomes and education, and are at greater risk of living in poverty, than married biological parents (McLanahan and Sandefur 1994; Amato 2001). Second, by design, BSF programs for unmarried parents operate in communities that are largely low income.

3. BSF Demonstration Sites

The BSF sites were selected through a process that involved both technical assistance and scrutiny of their implementation progress and capacity. The BSF project team cast a wide net to identify organizations and agencies interested in implementing the BSF model; the team also provided information and guidance in areas throughout the country. After working with a large number of potential sites, the field was narrowed to seven sites that seemed the most promising. These sites developed detailed plans for implementation. An intensive program design period helped these sites systematically consider and plan for such operational needs as recruitment sources, staffing structure, domestic violence screening, a management information system (MIS), and curriculum selection and training.

As each site completed its program planning, it moved into a pilot phase, which lasted between three and nine months, depending on the site. Throughout the pilot phase, the research team closely and regularly monitored each site's operational progress and provided assistance as needed.

At the end of the pilot phase, each site was assessed for its suitability to be part of the evaluation. To be included in the evaluation, a site needed to meet three main criteria: (1) effective implementation of the BSF program in a way that was faithful to the program model; (2) demonstrated ability to recruit enough couples during the sample intake period to meet the sample size targets; and (3) ability to comply with the requirements of the evaluation, including administering the consent and baseline information forms. All seven sites in the pilot met the criteria and were chosen to be in the evaluation.

The BSF sites include: Atlanta, Georgia; Baton Rouge, Louisiana; Baltimore, Maryland; Orange and Broward counties, Florida; Marion, Allen, Miami, and Lake counties, Indiana; Oklahoma City, Oklahoma; and San Angelo and Houston, Texas. Five of these sites are located in urban areas, the San Angelo site is in a small city with a surrounding rural catchment area, and Miami County, Indiana is largely rural. The sites vary in a number of aspects, particularly the infrastructure in which BSF was implemented, the recruitment and referral sources, characteristics of the population served, and the chosen curriculum. Three of the sites built upon their Healthy Families programs, a nationally known intervention for preventing child abuse and neglect through intensive home visiting. The sites differed in terms of the host organization, the primary recruitment source, the race/ethnicity of the population, and whether the couples were served prenatally, postnatally, or both (Table I.2).

B. BSF CONCEPTUAL FRAMEWORK

Many factors influence the quality of couple relationships, their decision to marry, and family and child well-being. Couples entering BSF programs come with a complex and varying set of family backgrounds and community contexts, and are offered the opportunity to receive the intensive set of program services comprising the BSF program model. The impacts of these

TABLE I.2

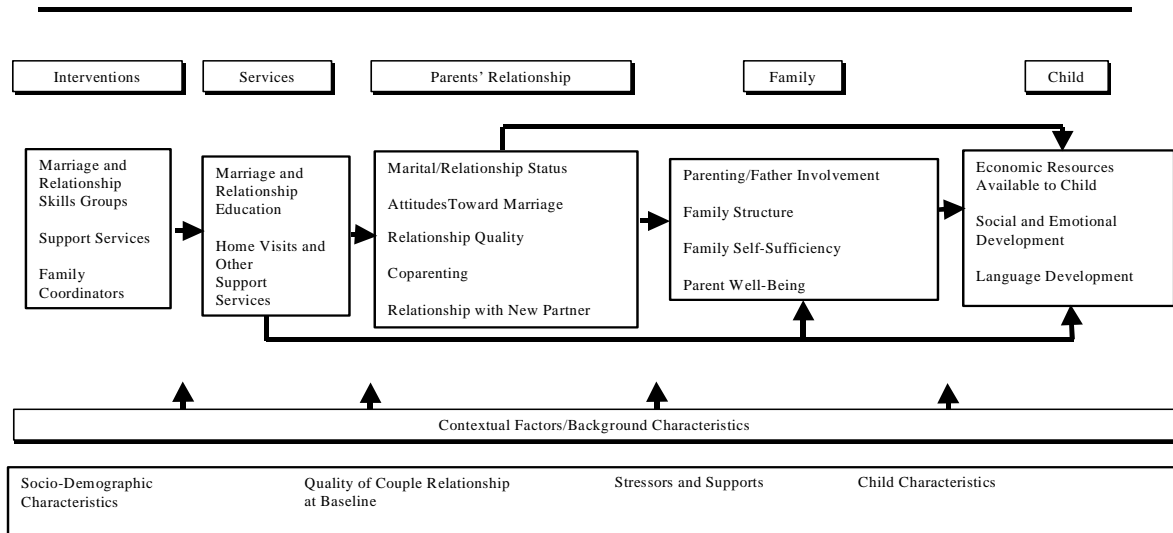
KEY FEATURES OF BSF SITES

Pilot Site	Host Organization	Primary Recruitment Sources	Race/Ethnicity of Main Population Served	Timing of Recruitment
Atlanta, Georgia	Georgia State University, Latin American Association	Public health clinics	African American and Hispanic	Prenatal
Baltimore, Maryland	Center for Fathers, Families and Workforce Development	Local hospitals, prenatal clinics	African American	Prenatal and postnatal
Baton Rouge, Louisiana	Family Road of Greater Baton Rouge	Prenatal program for low-income women	African American	Prenatal
Florida: Orange and Broward counties	Healthy Families Florida	Birthing hospitals	African American and Hispanic	Postnatal
Indiana: Allen, Marion, Miami, and Lake counties	Healthy Families Indiana	Hospitals, prenatal clinics, WIC	African American, White	Prenatal and postnatal
Oklahoma City, Oklahoma	Public Strategies, Inc.	Hospitals, health care clinics, direct marketing	White	Prenatal
Texas: San Angelo and Houston	Healthy Families San Angelo and Houston	Hospitals, public health clinics	Hispanic and White	Prenatal and postnatal

services depend first on whether the couples actually receive the services offered and then on the efficacy of the services on couple relationships (including the decision whether to marry), family outcomes, and child well-being.

Figure I.2 presents a conceptual framework for the BSF program and evaluation. The framework highlights the important linkages among background characteristics, BSF program intervention, services received, and outcomes. The framework offers a starting point for understanding the various factors affecting three main outcome domains—parents' relationships and marital status, family outcomes, and child well-being—and the design of the BSF evaluation.

FIGURE I.2
BSF CONCEPTUAL FRAMEWORK



Background characteristics and contextual factors include a multitude of factors, such as family structure, whether there are children from previous relationships, employability, attitudes and skills, physical and mental health of both parents and children, parenting behaviors, cultural factors, economic conditions, and public policies. The background and contextual factors have important and direct effects on relationship, family, and child outcomes, and may have indirect effects on outcomes by influencing whether and to what extent couples participate in BSF.

The BSF services received may also have direct and indirect effects on family and child well-being. The marriage and relationship skills education, as well as the home visiting and family support services, may have direct impacts on each of the three main outcome domains, as shown in Figure I.2. Or, the BSF services may first improve the quality of parents' relationships, which will in turn lead to healthy marriages, better family outcomes and improved child well-being.

In addition to identifying how BSF program services may affect parent, family, and child outcomes, the conceptual framework in Figure I.2 suggests three primary research questions to be addressed by the BSF evaluation:

1. ***How is BSF implemented?*** How is the program implemented in each site? What were the challenges in their implementation and how were they overcome? What aspects of the program are important for its replication? What are the promising practices? What program characteristics and features may be linked to the effectiveness of the program?
2. ***What services are received?*** Do couples enrolled in the program attend and complete the marriage and relationship skills education sessions? Do the family coordinators meet regularly with enrolled couples? What family support services are received?
3. ***Does BSF improve outcomes?*** What is the impact of BSF on parents' relationships, the decision to marry, family outcomes, and child well-being? Does BSF work better for some families than for others; what types of BSF programs work best; and how does BSF work?

To answer these questions, the BSF evaluation has two main components: (1) a comprehensive implementation analysis; and (2) a rigorous impact analysis. The comprehensive implementation analysis examines the development and implementation of the BSF programs in local sites as well as the type and intensity of BSF services received by enrolled couples. The impact analysis uses a rigorous experimental design with longitudinal follow-up. In each of the BSF programs, eligible couples are randomly assigned to either a group that receives the BSF intervention or a control group that does not. The control group is eligible to receive other services in the community. Data will be collected at three points of time: (1) at the time of sample enrollment (baseline), (2) 15 months after random assignment, and (3) when the BSF child is 3 years of age.

II. IMPLEMENTATION ANALYSIS

The field of healthy marriage and relationship skills education is young and little is yet known about effective implementation strategies. The BSF project offers an opportunity to examine systematic efforts to support healthy marriage formation among low-income parents. We will learn about the development and operation of BSF programs by closely observing, documenting, and analyzing them in practice. The findings from this largely qualitative analysis will be used to identify effective strategies for program operations and to complement the impact study. Documentation and analysis of program implementation will provide a basis for interpreting estimates of program impacts and will inform policymakers, program designers, and administrators about strategies for strengthening existing and future programs.

An implementation analysis presents the challenge of combining information that is often unstructured and loosely organized at its source with a systematic approach to analysis and inference. Several guiding principles must be followed. First, the objectives and approach to the analysis must be clearly stated. Second, a consistent approach must be adopted for the definition and collection of the important data. Third, all sites, despite their diversity, must be observed through the same analytical lens. In this chapter, we describe the goals and themes that structure the analysis, the information sources and instruments to be used for all sites, and the analytic approach to synthesize and assess the data.

A. OBJECTIVES AND RESEARCH QUESTIONS

In BSF, the implementation study will have three major objectives, each designed to increase knowledge and understanding of the programs under study. First, we will focus on describing how the BSF program operates in the sites participating in this evaluation. By collecting information on site background and environment, we can identify, for instance, the

challenges associated with implementation and how they were managed, and what aspects of the program are important for replication. Second, the analysis will identify promising practices, the various approaches and strategies that may make programs operationally more effective. These findings can help existing sites refine their programs and inform other sites interested in implementing similar programs. Third, the analysis will explore program characteristics and features that may be linked with program impacts. The findings from the implementation study may help explain the results such as unexpected impacts, cross-site differences, or differences among subgroups.

To obtain the depth of information that is necessary to meet these objectives, we will focus on several broad themes. The data collection and analysis will be organized around five topics:

1. ***Program Context.*** The overall purpose of gathering this information is to develop a clear understanding of the history that led local entities to implement the BSF program model. We will identify the circumstances that led to the development of a BSF program, and which organizations or people led the charge and why. We will also examine the parties involved in the planning process, and the resources that were needed to carry out the planning and initial implementation. Aspects of program design will also be documented—for example, ways in which BSF programs build upon the infrastructure of pre-existing programs, or are developed from the ground up. We will also study how the BSF goals and philosophy fit with those of the host organization. Other questions include: What family support services are available in the community, and what was necessary to engage those programs in supporting BSF couples? What aspects of the political climate of the local areas either hindered or encouraged the development of the BSF program?
2. ***Outreach and Recruitment.*** Exploration of this topic will focus on how participants are identified as eligible for BSF and then enrolled in the program. We will describe each site's plan for outreach and recruitment and how this plan evolved, and assess the early effectiveness of the plan. We will focus especially on strategies used to recruit men into the program, and the success of these efforts. We will identify and document messages used in recruitment materials and in person, as well as strategies for marketing in the community and promoting interest and enrollment in BSF. Attention will be paid to documenting the extent to which, and reasons that, some couples who start the intake process are ineligible for BSF, and the characteristics of those couples who are eligible and consent to be in the study.
3. ***Operations.*** We will describe in detail the implementation of BSF at each site, using the three core components of the BSF program—marriage and relationship skills education,

family support services, and family coordinators—as a framework. The focus will be on determining how sites operationalize the BSF model guidelines. This may include examining how sites hire, train, and supervise family coordinators, group facilitators, and other staff; how couples are assigned to groups and family coordinators; how group sessions are scheduled and arranged; and how family coordinators and group facilitators interact and support each others' roles. In addition, we will analyze how sites monitor their own operations through strategies such as self-assessment or target-setting.

4. ***Enrollment, Engagement, and Participation.*** An important issue is the extent to which enrolled couples engage and participate in the BSF program. This includes participation in group sessions but also the extent of their contact with family coordinators or involvement in other supplementary activities. We will explore the frequency and intensity of participation and level of retention, and examine how this may differ by characteristics such as gender, race/ethnicity, age, or cohabitation status. We will also examine the interest levels of couples assigned to the program group, and their reasons for remaining in groups, missing sessions, or ending their participation. We will describe strategies for encouraging initial and continued program participation. We will describe, document, and assess the strategies taken by sites if one partner misses or stops attending group sessions, and we will give particular attention to how fathers are encouraged to continue their participation throughout the program.
5. ***Replicability and Program Costs.*** Because BSF is one of the first large-scale programs of its kind, little is known about the costs of the program or the elements that are most likely to result in positive effects. Under this topic, we explore the conditions critical for replicating the program. This is not limited to elements of the program, but may also include environmental factors, such as the economic, political, and cultural milieu. In addition, we will summarize available data on the cost of the program, in total and per couple.

Appendix A presents the targeted research questions for each area of inquiry.

B. DATA SOURCES

The data collected for the implementation analysis fall into two broad categories: field data and management information system (MIS) data. The data sources used to address each research question are summarized in Appendix A.

1. Field Data Collection

During the evaluation period, each BSF program included in the evaluation will be visited twice, with each visit lasting three to four days. The first round of site visits will occur in the second half-year of each program's operation, fiscal year (FY) 2006, and the second round will

occur one year later in FY 2007. These two rounds of visits will provide the bulk of information collected from the field, including information on implementation strategies and changes over time. During these visits, the implementation research team will interview staff, conduct focus groups with couples, observe program activities, and review relevant documents. In addition, the team will supplement this information with phone interviews with non-participants, and insights from the monitoring of program operations by BSF project staff throughout the pilot and over the course of the evaluation.

a. Interviews with Staff

A major source of information will be interviews conducted with staff and participants during site visits to each program. For most research questions, researchers will interview a primary respondent and one or more secondary respondents to ensure we have multiple sources and viewpoints. The questions, which appear in Appendix A of this design report, will be fleshed out with appropriate probes before the site visits. These semi-structured interview guides will steer the discussions, with some tailoring of interviews for specific programs. Staff will not be asked all questions in the topic guide; questions will be specific to each type of staff interview to capitalize on particular expertise. There will be some overlap, however, to triangulate sources and perspectives. Respondents will include:

- Program Managers and Supervisors
- Family Coordinators
- Outreach and Intake Staff
- Group Facilitators
- Staff from the Recruitment Source(s)

b. Focus Groups with Participant Couples

Researchers will conduct focus groups with couples that participate in BSF programs at each site. The purpose of the focus groups is to discuss couples' experiences with the program, particularly their participation in the workshop sessions and meetings with their family coordinators. Additionally, the focus group sessions will explore the couple's level of interest in BSF, their reasons for attending or missing group sessions, and the perceived effect of the program on the quality and status of their relationship. The topic guide for groups can be found in Appendix B.

We will conduct two focus groups at each site during both rounds of site visits, for a total of 28 focus groups. The sample for each focus group is estimated to be 10 participants (5 couples). Invitees will be offered \$35 per person (\$70 per couple) to offset the costs of their participation.

To select participants, we will construct a randomly ordered list of all couples in the site who have attended more than two sessions of a workshop group. These couples will then be contacted by phone (in the order in which they appear on the list) and invited to participate in a focus group. The random ordering of couples helps reduce the risk that well-known or readily accessible participants dominate the sample. We recognize, however, that this method will not eliminate selection bias; couples who are most satisfied with the program are more likely to stay engaged in the program, and thus participate in focus groups. To address this issue, we will also be contacting couples who either failed to attend any session, or attended only one or two sessions (see "Phone Interviews with Non-Participants" below).

c. Observations of Program Activities

During site visits, researchers will observe program activities to help us document and thoroughly understand how specific program activities are conducted. Through direct observation, researchers will be able to collect information that is independent of the program staff's perceptions, which will be useful for triangulation with staff interview responses.

Observations will potentially occur for four program activities:

1. **Intake.** All couples are enrolled in BSF through an intake process that varies across sites. Observing intake sessions will assist in developing an understanding of how BSF is initially presented to couples.
2. **Group Workshops.** The centerpiece of BSF are the group workshops to which all couples are invited shortly after program enrollment. By observing the group workshops, researchers will develop an understanding of how the curriculum is delivered and observe couples' responses.
3. **Family Coordinator Meetings.** Family coordinators support couples as they participate in BSF. The nature and purpose of this service varies across sites. Observation will help us understand variation in this role.
4. **Supervision Sessions for Program Staff.** In many BSF sites, regular supervision sessions occur to provide support to front-line staff. By observing the sessions, researchers will learn about staff interactions and staff's perception of the population they serve, which is not feasible through a single observation of intake or family coordinator meetings.

For each type of observation, we will develop a form to document information learned during the encounter. The form will include sections that describe the encounter and document the topics discussed, questions addressed, and nature of interaction between BSF staff and couples. Figure II.1 illustrates a form for observing group workshop sessions, and identifying the elements of the sessions that should be documented and any specific questions relating to these elements.

FIGURE II.1

ILLUSTRATION OF FORM TO DOCUMENT GROUP WORKSHOP OBSERVATION

1. Workshop Description
Date: _____
Location: _____
Curriculum: _____
Facilitators: _____
Session Start & End Time: _____
Number of Couples Expected: _____
Number of Couples Attending: _____
Topic(s) Covered: _____
2. Anticipated Module Elements: describe what occurs during each element
1. Environment and Set-Up: Describe the room set-up and environment. Is the set-up welcoming and comfortable?
2. Introduction and Check-In (Time Spent: ____). Do leaders welcome participants and greet them by name? Do couples interact with each other?
3. Multimedia Presentation (Time Spent: ____). How do the leaders introduce the presentation? Are couples engaged in the material?
4. Information Delivery (Time Spent: ____). Do the leaders present the material in an accessible way? Are couples given messages about what is “right” or “wrong?” Do the couples ask relevant questions in response to the information?
5. Group Discussion (Time Spent: ____). How active is the discussion? Do couples have to be encouraged to participate? Do men and women participate equally? Are they treated respectfully by the leaders and each other?
6. Couple Exercises (Time Spent: ____). Do the couples understand and engage in the exercise? Do the couples seem to recognize the reason for the exercises? Do the leaders monitor how well the couples are completing the exercises?
7. Wrap-Up and Feedback (Time Spent: ____). Are the main points of the session reiterated? Do the leaders provide closure for the session?
8. Leaders’ Debrief and Review of Feedback How do the leaders rate this session? Do they think this session was typical?
9. Overall Observations. Describe your overall impression of the leaders and their rapport with the couples. Did the couples seem to enjoy the session and find it useful? Did the couples appear to grasp the primary concepts being conveyed and demonstrate generally appropriate use of the information and skills presented.

d. Review of Program Documents

To supplement data gathered during the site visit, researchers will review program documents to learn about local implementation, many of which will be available before site visits. Documents could include implementation plans developed as part of the pilot operation or for the transition to full evaluation participation. These plans typically describe the components of the program model, the target population, enrollment projections, and staffing plans. Researchers will also review sites' budget documents, staffing information, and monitoring data maintained by the site or by the BSF project team. Reviewing these data will provide a basic understanding of how the site is structured and the implementation plans and how they evolved. Other documents may be gathered during the site visit, such as recruitment materials, assessment forms, materials distributed during home visits or meetings with the family coordinator, and possibly case files. Some of these will already be available as a result of ongoing operations monitoring by the BSF evaluation team, but additional material is sure to be uncovered during site visits.

e. Phone Interviews with Non-Participants

Preliminary analysis suggests that a substantial minority of couples who consent to participate in the program either never show up for groups or drop out after a few sessions. It is important to collect information on why these couples have not engaged in the program. To do so, we will conduct brief phone interviews with approximately 12 non-participants at each site, selected from the list of couples who attended between zero and two sessions of groups that have met at least five times. These phone interviews will occur around the time of the first site visit. Prior to the interviews, the selected individuals will be mailed a letter with a brief description of the interview and process, along with a check for \$5. When the individuals are contacted by

phone, they will be offered an additional \$10 for participating, to be mailed after completion of the interview.

During these semi-structured interviews, which will last approximately 10 minutes, we will probe why the couple does not participate in group sessions—for example, as a result of a break up, one partner’s refusal to attend, interfering life events, or disinterest in the program (Appendix C). These interviews, which will be conducted with the partner who can be contacted first, are not intended to yield representative data on non-participants, and thus cannot be used to estimate the prevalence of various factors leading to disengagement. Instead, these interviews will help identify the types of factors that prevent people from participating.

f. Operations Monitoring

In addition to the information gathered during the two rounds of site visits, field data collection includes material gathered during operations monitoring. MPR began providing technical assistance to sites during a pilot phase, when sites were developing and refining implementation strategies. Sites’ progress were monitored through regular phone calls and visits. During the pilot, team members observed intake assessments, home visits, and group sessions; reviewed program documents and MIS data; conducted focus groups with participating couples; and interviewed staff. We also solicited feedback from the curriculum developers on the proficiency of sites’ group leaders. Although practices followed in the pilot period may have evolved considerably, they will generally be continuing in similar fashion. Earlier observation during the pilot, and the insights and issues identified during that period, are likely to be useful as we re-examine sites’ daily operations, progress, and strategies for implementation.

2. MIS Data Collection

Each site uses an MIS to collect data on couples and operations. Operations data includes information on program enrollment, participation, and retention in BSF activities. Other data in

the MIS is from the eligibility checklist and baseline information form (BIF) administered as part of the intake process to both partners of all couples in the study sample. There will be at least two rounds of MIS analysis to coincide with the site visits. For the implementation analysis, these data will provide information on the demographic characteristics of BSF couples, attendance at group sessions, meetings with family coordinators, and other activities conducted with couples. Table II.1 identifies MIS items that may be used for the analysis.

C. ANALYSIS METHODS

The data from the aforementioned sources will allow us to pursue three main analytic goals. First, we will organize the data to present a detailed description of each site's implementation and practices. Second, we will devise and analyze indicators of the implementation approach and operational success. Third, we will identify promising practices, offering information about possible strategies, creative solutions, and ways to avoid pitfalls.

1. Description of Sites' Implementation

This first step in the implementation analysis will be to synthesize data from several sources using a structured write-up guide. The write-up guide will help us organize site observations and findings into an internal document for each site, facilitating analysis within and across sites. Site visitors will use all relevant information from interview notes, summaries of focus groups and phone interviews, and notes on observed activities and program documents. Site visitors will highlight key points, provide clarifying examples and illustrative quotations, where appropriate, and note discrepancies between data sources. In sites with multiple sub-site locations, the

TABLE II.1

MIS ITEMS AVAILABLE FOR THE IMPLEMENTATION ANALYSIS

Component of Implementation Analysis	Relevant MIS Items
Demographic Characteristics of BSF Couples	<p>Socioeconomic and demographic characteristics (such as age, race/ethnicity, religiosity, employment)</p> <p>Status and quality of couple relationship at baseline including marriage aspirations</p> <p>Child characteristics</p> <p>Point of enrollment (prenatal or post-delivery)</p> <p>Other stressors and supports (such as mental health social support)</p>
Extent of Exposure to Core Curriculum	<p>Attendance at scheduled groups sessions (for each partner)</p> <p>Attendance at curriculum make-up sessions (for each partner)</p>
Participation in Other Program Activities	<p>Attendance at other program activities, including family coordinator meetings (for each partner)</p> <p>Location/mode of contact</p> <p>Topics discussed during contact</p> <p>Other program activities (e.g., orientation, social outings, special groups for mothers or fathers)</p>
Referral to Services	Number and types of referrals (agency, service)

write-up will include a section to capture information that is common across them, and separate sections to describe differences.

The narrative for each site will be structured around five topic areas: program context, outreach and recruitment, operations, program participation, and replicability and program costs (see Appendix A). The research questions within these topic areas will provide standard measures or descriptions of implementation for each site, which will help identify strengths and weaknesses that may explain program impacts or lack thereof.

For each write-up, other BSF team members will review the document and raise questions about issues they think are inadequately covered or at odds with what they learned in their contacts with the sites. The author will seek additional information from the site if necessary, and possibly provide additional detail in the narrative. This final step allows the researchers to develop a deeper understanding of the program site prior to the cross-site analysis. The narratives as a group will become the basis for summarizing, analyzing, and reporting.

2. Analysis of Variation in Implementation

The site profiles will provide thorough descriptions of the sites, which then can be analyzed for specific indicators of contact, engagement, and participation. We are interested in (1) whether sites meet certain minimum standards and (2) how their approaches vary. Sites were given guidelines and benchmarks, such as the number of couples to recruit for the program, the minimum number of contacts between couples and family coordinators in a month, and (from the curriculum developers), how a group session should be conducted. The first step in this analysis is determining whether the sites met these specifications and implemented the program at the expected level. If, as an extreme example, we find that family coordinators did not make contact with a substantial proportion of couples, the site will not have implemented the program according to the guidelines.

The second, more nuanced, part of the analysis will be examining variation in implementation. Although we expect most sites to fulfill the minimum requirements, the variation beyond that may be informative. This analysis will require the creation of indicators of implementation concerning the three main components of the program—the core group sessions, family support services, and the role of family coordinators. These indicators will follow the format of the site profiles, with measures from each of the five topic areas. The site profiles will also provide much of the data for the indicators. For instance, the role of the family coordinator will be examined through interviews with staff and program observations (see Appendix A), data that will be synthesized and presented in the site profile. This information can then be used to address possible implementation indicators, such as how often family coordinators interact with mothers and fathers, the instruments family coordinators use to assess a family’s needs, and types of referrals provided to families.

To complement the information gathered from qualitative methods, we will construct measures of implementation based on data from the sites’ MIS on the couples randomly assigned to the program. These measures will focus on four topics: (1) recruitment, assignment to, and participation in group sessions, (2) contact with family coordinators, (3) referral to family support services, and (4) the identification of domestic violence concerns in intake screening and ongoing assessment. A preliminary list of implementation indicators is presented in Table II.2.

Such indicators will help to characterize the degree to which the program is being implemented and services are being delivered. We anticipate creating tables to succinctly display this information, facilitating both comparisons across and within sites for various indicators. Displaying the information in tabular form may also facilitate the analysis of links between features of a site’s implementation and outcomes. For instance, we may find that certain recruitment techniques are associated with high participation rates. An important caveat

TABLE II.2

IMPLEMENTATION INDICATORS

Outreach and Recruitment

Incidence of refusals (number of refusals/number of eligible individuals)
Rate of ineligibility
Rate of success in completing intake with “second partner” of first eligible/consenting partner
Number of couples randomly assigned

Group Participation

Percentage of couples assigned to groups within four months after random assignment and within other intervals
Percentage of couples attending at least one session within four months after random assignment and within other intervals
Percentage of couples attending specified number or proportion of sessions (e.g., 50% of sessions)
Average number of sessions attended—for all couples and for those who attend at least one session
Extent of curriculum delivery through contacts other than group sessions

Contact with Family Coordinators

Frequency of contacts
Percentage of missed contacts (i.e., “no-shows”)
Percentage of contacts with mother and father
Topics covered

Referral to Family Support Services

Incidence of referrals per month of participation
Incidence of referrals by type of services and agency to which referrals are made

Domestic Violence Screening

Percentage (and number) of couples for whom domestic violence is revealed after group assignment

is that we will be limited in our ability to make causal arguments. We cannot determine whether a particular practice lead to a particular outcome; we can only note the association.

We also plan to examine these implementation indicators for any differences within and across sites among sub-groups, such as race, ethnicity, age, whether this is the parents' first child, and whether recruitment was pre- or postnatal. Sub-group analysis can reveal whether certain groups are more involved in BSF than others, based on an analysis of recruitment, participation, and retention.

An analysis of implementation is useful for determining the extent and intensity of BSF services offered to participating couples. The implementation analysis will illustrate how sites vary in levels of implementation for different components of the program, such as recruitment, participation rates in groups, and extent of contact with the family coordinators. This analysis is descriptive and since there are no established guidelines of optimal participation, we will not be able to determine if a particular level of implementation was most preferable. Although we would generally prefer higher levels of participation, it may be the case that the impact of the group on a couple's relationship, for instance, is the same whether the couple attends 10 or 20 sessions.

We will, however, explore associations between the identified practices and selected outcomes in the impact analysis. The implementation analysis will provide information that can be used for analyzing whether impacts varied by characteristics of programs (see Chapter III). For instance, we will estimate impacts for groups of sites that are categorized by factors such as the type of host organization or the intensity of the family coordinator role. We may experiment with developing composite scores of engagement and participation. These scores may be useful in summarizing the various specific indicators and in identifying sites with similar levels of implementation. We could then compare the estimated impacts of groups of sites based on a

specified level of implementation. As an example, we may find that sites with a higher level of implementation exhibit larger positive impacts on couples' outcomes than sites with a lower level of implementation. The implementation analysis may also be able to explain why impacts are found for some outcomes but not for others.

3. Identifying Promising Practices

Results from the implementation study should be useful to BSF sites, as well as program managers, sponsors, and policymakers elsewhere who are interested in healthy marriage initiatives. For BSF sites, the implementation study provides both quantitative and qualitative measures of the success of their implementation strategies and procedures. For other parties, the study sheds light on what has been done, the challenges faced, and the successful practices.

The identification of promising practices is not a separate analytic method, but a process that will evolve throughout the other analyses. We will identify promising practices through the development of the site write-ups and analysis of implementation indicators, triangulating sources when possible. Promising practices may be those linked with positive implementation outcomes or highlighted by program staff as especially successful. During interviews, for instance, program staff may discuss how a change in strategies increased their recruitment pace. This recruitment information can then be verified with data from the site's MIS.

Given our experience with the pilot, and the relative lack of information on healthy marriage initiatives, we can anticipate promising practices will emerge for several aspects of the program, which will be useful to practitioners and policymakers. Some possible topics are:

- ***Infrastructure of the Program.*** This could include the advantages and challenges of having a BSF program embedded in another program, added to an array of other programs, or developed from the ground up.
- ***Staffing Patterns and Practices.*** Possible topics include the impact of male staff; important qualifications of group facilitators, family coordinators, and outreach staff; and effective staff training.

- ***Recruitment and Engagement Techniques.*** This could cover effective recruitment sites or referrals sources, advantages to different approaches used on potential participants, and successful strategies to keep participants interested before group sessions start.
- ***Screening for Domestic Violence.*** Potential topics are establishing rapport with potential participants during intake, how to ask questions about domestic violence, and encouraging disclosure without compromising a victim's safety.
- ***Curriculum Content and Delivery.*** Topics may include how delivery approaches—such as teaching methods, format, facilitator characteristics, and structure of group sessions—may affect participants' attendance levels and engagement in the material. It will also include participants' interest in, and assessment of, the usefulness of curriculum content.
- ***Maximizing Attendance at First Group Sessions.*** Descriptions of effective techniques such as personal contact with the facilitators, the use of orientation sessions, and transportation services.
- ***Sustaining Group Attendance.*** This might describe successful techniques and strategies for maintaining interest and participation, such as the role of the family coordinator, social activities, reminder calls or visits, transportation services, and other incentives.
- ***Effective Make-up Sessions.*** Topics of interest are conducting make-up sessions with separate couples or as a group, having make-up sessions with the facilitators or family coordinators, and whether offering make-up sessions appeared to increase retention.
- ***Role of the Family Coordinator.*** This could cover whether and how the family coordinator reinforces group workshops skills and attendance, and the type and frequency of contact.

III. IMPACT ANALYSIS

The BSF program is designed to help interested, unwed parents develop stronger relationships and healthy marriages and by doing so, enhance the well-being of their children. The curricula used by BSF sites are based on relationship-skills programs that have been shown to be effective for married couples, as well as knowledge of the factors that promote healthy marriage and strong couple relationships. Even so, we do not know whether BSF will be effective for unwed parents. The impact analysis, described in this chapter, will examine whether BSF is effective in improving the outcomes of the families it serves, whether it is more effective for some families than others, and whether BSF is more effective when implemented in certain ways or in certain circumstances.

A. OBJECTIVES AND RESEARCH QUESTIONS

The main objective of the impact analysis is to determine whether BSF succeeds in changing the outcomes it is designed to address—the parents’ relationship, the well-being of the family, and ultimately the well-being of the child. To meet this broad objective, the impact analysis will address four main questions:

1. ***Does BSF work?*** Whether BSF is effective in changing the lives of parents, families, and children is the key question addressed by the impact analysis. We will first examine whether BSF improves couple outcomes, such as marriage and relationship status, stability, and quality. We will also examine whether it improves family outcomes, such as the likelihood that the child lives with his or her biological parents, parenting behaviors, family self-sufficiency, and parent well-being. Finally, we will examine whether it affects child development outcomes, such as the child’s cognitive, social, and emotional development.
2. ***Does BSF work better for some families than for others?*** Identifying the characteristics of those families who benefit most from BSF programs will help programs improve and target services. We will examine whether the effectiveness of BSF varies by the characteristics of the parents or their children.

3. *Does BSF work better when implemented in certain circumstances or in certain ways?* While all BSF programs share a common set of features, they vary in where and how they are implemented. For example, the communities in which BSF is implemented vary in urbanity, racial and ethnic composition, and the availability of support services. The host organizations for BSF programs differ in their overall mission and the other services they provide. We can expect the implementation of BSF in some sites will be more faithful to the BSF model than others. To the extent possible given the relatively small number of BSF sites, we will examine whether the effectiveness of BSF varies by characteristics of the community in which they are implemented or the way in which the programs are implemented.
4. *How does BSF work?* Understanding how BSF works is important for program administrators considering implementing or modifying a BSF program. While this study is not designed to fully identify all the mechanisms by which BSF affects outcomes, we will explore three questions that may shed light on this question:
 1. To what extent does BSF affect the receipt of relationship skills education and support services?
 2. How does increasing participation in BSF (the intervention “dose”) affect the magnitude of the program impacts?
 3. Does BSF affect child and parent well-being through its effects on the quality of parents’ relationships, the status of the relationship, the economic health of the family, or through other pathways?

The evaluation was designed to address the first two of the four major questions described above with much more rigor than the last two. However, while we will not be able to provide definitive answers to the third and fourth questions, our analysis may shed some light on these issues.

B. EXPERIMENTAL DESIGN

We will estimate the effect of BSF using a rigorous random assignment research design. Couples who apply to the program will be assigned randomly to either a program group that is offered admission to BSF or a control group that is not. We will measure program impacts by comparing the outcomes of the two research groups.

When implemented correctly, random assignment ensures that there are no systematic differences between the program group and the control group other than program participation. On average, the characteristics of couples in the program and control groups are similar prior to

program participation. Any subsequent differences in the outcomes of program and control group couples can therefore be attributed to BSF with a known degree of statistical precision.

In the context of BSF, three important issues must be addressed in implementing random assignment procedures. First, since BSF is an intervention that is targeted to couples, couples rather than individuals must be randomly assigned. One member of a couple cannot enroll in BSF without his or her partner. Second, *all* couples who are recruited for BSF and satisfy all the BSF program and study eligibility requirements (described below) are randomly assigned.¹ Third, a couple cannot be randomly assigned if either member of the couple has previously been randomly assigned. This ensures that no member of the control group can participate in BSF with a new partner and that no member of the program group is subsequently assigned to the control group.

1. BSF Intake Procedures

BSF intake procedures involve three steps: (1) determining program eligibility; (2) determining study eligibility; and (3) conducting random assignment. These are presented in Figure III.1.

a. Program Eligibility

The first step in the BSF intake procedures is to determine eligibility for the program. To be eligible for BSF, the couple must be expectant biological parents or the biological parents of a

¹Under exceptional circumstances, a site can request that a couple be exempt from random assignment. We expect to grant only a few, if any, of these exemptions.

FIGURE III.1

BSF INTAKE PROCEDURES

baby three months of age or younger and unmarried (or married since the conception of the baby). Each parent must be age 18 or older, say that they are available to participate in the group sessions, and be able to speak and understand a language in which BSF is offered. The couple must not be involved in domestic violence that could be aggravated by participation in BSF. BSF programs, working with local domestic violence experts and with national consultants, have developed and adapted program-specific screening approaches to domestic violence.

To be eligible for BSF, couples must also be in a romantic relationship. We describe a couple's relationship as "romantic" if both members of the couple agree with one of the following two statements (read to them by BSF staff) that could describe their relationship:

1. "We are romantically involved on a steady basis."
2. "We are involved in an on-again and off-again relationship."

The second question ensures that we include couples who are romantically involved but have temporarily separated or whose relationship is marked by ups and downs.

A BSF intake worker determines the eligibility of the couple, typically through a conversation with each member of the couple. If the parents are together when eligibility is determined, the intake worker asks them to separate for the questions about their relationship and domestic violence. After this conversation, the program intake worker completes the program eligibility checklist (presented in Appendix D) for each parent and enters the data from the checklist into the study MIS.

b. Study Eligibility

In addition to satisfying all the program eligibility criteria, each member of the couple must also satisfy three study participation criteria:

1. *Give Consent to Participate in the Study.* After determining eligibility, the BSF intake worker explains to each member of the couple that there is limited space in the

BSF programs, and, as a result, there is a 50/50 chance they may not get into the program. The intake worker will also explain the BSF study and tell them that they will be asked to participate in follow-up surveys. Both parents must sign a BSF consent form. If either parent refuses to sign the consent form, neither parent can participate in BSF.

2. ***Complete Baseline Information Form.*** This form asks for some information on the characteristics of the parent and the parents' relationship. A BSF intake worker administers the baseline information form to each member of the couple.
3. ***Complete Contact Information Form (on Three Close Relatives or Friends).*** After administering the baseline information form, the BSF intake worker asks each member of the couple to complete a form that provides contact information. This information is important for locating the individual for the follow-up surveys.

The consent, baseline information, and contact forms are presented along with the program eligibility checklists in Appendix D.

c. Random Assignment

Random assignment takes place after: (1) *both* parents have satisfied *all* the program and study eligibility criteria, (2) the information is entered into the program MIS, and (3) the MIS has checked that neither parent has previously been randomly assigned (Figure III.1). If for any reason only one member of the couple satisfies the eligibility criteria, the couple cannot participate in BSF and is not randomly assigned.

Before conducting random assignment, the computer program checks that neither member of the couple has been previously randomly assigned—the first check uses the social security number and the second uses name, date of birth, and site. MPR will alert the site if either parent appears to have been randomly assigned previously. Site staff determine whether the computer program has mistakenly identified two different people as the same person, or whether the person had really been randomly assigned previously and hence cannot be randomly assigned again.

The MIS assigns a couple to the program or control group. The probability of being assigned to each group is 50 percent. To ease the burden on the sites, the random assignment algorithm is designed so that long sequences of assignments to either the program or control group do not take place.

The MIS notifies the site of the assignment of each couple to the program or control group. The site is responsible for notifying each couple of their group assignment. Most sites immediately assign couples in the program group to a family coordinator and to a BSF group that is expected to start in the near future. Sites notify the control group either in-person or by phone. Some sites provide the control group family a list of support services available in the community.

Although randomly assigned couples will have signed consent forms indicating interest in the BSF program, random assignment is conducted before it is known for sure whether the couple will actually participate in BSF. While attempts will be made to encourage all members of the program group to participate in the group sessions and meet with family coordinators, some couples may decide not to participate in the program. Hence, comparisons of the outcomes of program and control groups provide estimates of the impacts of offering the program, or “the intent to treat,” rather than the impact of BSF participation. We rejected the alternative of randomly assigning couples only after they had showed up to a group session as being too disruptive and upsetting to the couples who are assigned to the control group. Section D (below) presents the details of our plan for estimating the impacts on those couples who actually participate.

2. Determining the Counterfactual

Understanding the question that the BSF evaluation will address requires an understanding of what services the control group members receive. The receipt of services by the control group defines the counterfactual—the services that would be received in the absence of BSF. As the

services available to the control group vary by site, so does the counterfactual. To fully understand the counterfactual in each site, we will collect information on service receipt from both control group members and program group members using the 15-month follow-up survey. The implementation analysis will also describe the marriage and relationship education and support services available in the community.

While members of the control group cannot participate in any component of BSF, they can participate in any other marriage or relationship skills programs available in the community. However, other marriage or relationship skills programs are not widely available to low-income couples in any of the BSF sites. Some churches and other faith organizations do offer relationship skills programs, often as preparation for marriage. For example, the Catholic Church requires participation in premarital counseling (PreCana) before a couple can be married in the church. Counseling on marriage and relationships may also be provided by members of the faith community or by mental health counselors. Control group members are also free to receive any support services that are available in the community.

In Florida, Indiana, and Texas, where BSF is integrated into a Healthy Families program—a home-visiting child-abuse prevention program—control group members cannot participate in the regular Healthy Families program. Control couples are excluded from Healthy Families services for two reasons. First, if control group members could participate in Healthy Families, we would not be testing the full BSF program model. Instead, we would be testing only the components of BSF that went beyond Healthy Families—principally, the group sessions on marriage and relationship skills. Second, we were concerned about contamination of the control group. This may occur, for example, if staff in the organization learn relationship skills through their involvement in BSF and then teach those skills to control group members as they interact with

them as part of the Healthy Families program. It may also occur as the general culture of the organization changes to be more supportive of the couple as opposed to just mothers.

In the sites where BSF is one program provided by a multi-program organization, control group members are allowed to participate in the other programs offered by the organization. For example, in Baton Rouge, control group members can participate in any of the other programs offered by the Family Road program, the host organization for BSF in Baton Rouge. These other services include childbirth education, fatherhood programs, parenting and child development classes, money management classes, job placement, counseling, and home visiting for at-risk mothers and children. In Baltimore, the organization that hosts BSF—the Center for Fathers, Families, and Workforce Development—offers a wide variety of employment services that are available to the control group members. Because these other programs run by these host organizations are operated and funded independently of BSF, it was not feasible to exclude control group couples from them. For this reason, in these sites, the difference between the receipt of support services by the program and control group may be smaller than in other sites.

C. SAMPLE DESIGN

The main objective of the sample design for the BSF evaluation is to ensure samples large enough to detect policy-relevant program impacts for the full sample as well as for key subgroups. Put another way, the BSF sample must be designed such that if no statistically significant impacts are detected on key outcomes, one of two conditions hold: (1) there really is no impact of BSF, or (2) any program impact is sufficiently small so as to be of little importance to policymakers or practitioners. As described in this section, the BSF evaluation will include sample enrollment in 7 sites over 24 months, with sample sizes per site ranging from 400 to 600 couples.

1. Sample Frame, Intake Period, and Sample Size

The sample frame for the evaluation consists of couples who are interested in participating in a BSF program during the sample intake period, meet the program and study eligibility criteria, and are randomly assigned. The length of the sample intake period varies by site, but will last for about two years.

We developed target sample sizes for each site based on experiences during the pilot period (Table III.1). While we expect that some sites may not reach these targets, others may exceed them. Specific site targets may shift during the evaluation to ensure an adequate overall sample size—we expect to achieve a total sample size of about 3,375 couples.

TABLE III.1
EXPECTED NUMBER OF COUPLES ENROLLED IN STUDY, BY SITE

Site	Number of Couples		
	Program	Control	Total
Atlanta, Georgia	300	300	600
Baltimore, Maryland	228	287	575
Baton Rouge, Louisiana	200	200	400
Florida (Orange and Broward Counties)	200	200	400
Indiana (Allen, Marion, Miami, and Lake Counties)	200	200	400
Oklahoma	250	250	500
Texas (San Angelo and Houston)	250	250	500
Total	1,700	1,700	3,375

As BSF is a new demonstration program that needed to be developed from scratch, it was impossible to select nationally representative sites. Hence, we will be able only to address the question of whether BSF works in this set of sites and not whether it would work if implemented more widely. If BSF works in these evaluation sites, it would be appropriate for policymakers to infer that BSF might work in other sites and test a wider replication of BSF. Conversely, if we

find that BSF is not effective in improving outcomes among participating families in these sites, policymakers should be more cautious about replicating the program on a wider scale. However, policymakers should not conclude from these findings that BSF could never work—it may work in sites with different characteristics.

2. Statistical Precision

The sample size is large enough that we likely will be able to detect policy-relevant impacts, if they exist, for key outcomes for the sample pooled across sites, and for important subgroups. Table III.2 presents the minimum detectable impacts for three key outcomes. Two are measured 15 months after random assignment: the percentage of BSF couples who are married and whether the father is present in the life of his biological child. The third impact, the child’s score on the Child Behavior Checklist of Aggressive Behavior, is measured at the 36-month assessment. These three outcomes were selected both because of their importance to the evaluation and because they are collected from different respondents. In Table III.2, the “percent married” measure is assumed to be reported by the mother; the father involvement measure is assumed to be reported by the father; and the Child Behavior Checklist is collected at the child assessment.

When pooled across the seven sites, the expected sample size—about 3,375 couples—is sufficient to detect impacts within plausible size ranges. With the full sample, we will be able to detect an impact of 2.7 percentage points or more in the percent married, 3.8 percentage points in father presence, and an impact of 0.5 points in the measure of aggressive behavior. Impacts on scales are frequently presented as effect sizes—the impact on the scale divided by the standard deviation of the scale. An impact of 0.5 points in the measure of aggressive behavior is equivalent to an effect size of 0.08.

TABLE III.2

MINIMUM IMPACTS DETECTABLE BY SAMPLE SIZE, FOR KEY OUTCOMES

Sample Size (Program/Control)	15-Month Surveys		36-Month Child Assessment
	Percent Married	Percent of Biological Fathers Present in the Life of their Child	Child Behavior Checklist: Aggressive Behavior
Expected Control Group Mean	12.4%^a	71.0%^a	11.3^b
Pooled Sample: 7 Sites 3,375 (1,688/1,688)	2.7	3.8	0.5 (ES = 0.08) ^c
50% Subsample 1,688 (844/844)	3.9	5.3	0.8 (ES = 0.12)
30% Subsample 1,013 (506/506)	5.0	6.9	1.0 (ES = 0.15)
Site-Specific Analysis 500 (250/250)	7.1	9.8	1.4 (ES = 0.21)

Note: Calculations assume (1) an equal number of program and control members; (2) a 95 percent confidence level with an 80 percent level of power; (3) a one-tail test; (4) a reduction in the variance of 20 percent from the use of regression models; (5) the standard deviation of the Child Behavior Checklist of Aggressive Behavior is 6.5; and (6) response rates of 85 percent for the 15-month mothers and fathers surveys and 78 percent to the child assessments.

^aBased on findings from the Fragile Families 12-month follow-up survey.

^bBased on findings from the Early Head Start evaluation when the child was about 36 months old (Love et al. 2002).

^cES = Effect Size.

Whether these sample sizes are large enough—and even what, in fact, constitutes a sample size that is large enough—depends on what impacts might reasonably be expected given the intervention. Because BSF is so unique an intervention, it is difficult to predict the size of its expected impacts. However, we do know the following:

- The Minnesota Family Investment Program (MFIP)—a welfare program not specifically designed to increase marriage rates—increased the marriage rate 36 months after random assignment among unmarried, long-term welfare recipients by 4 percentage points (Miller et al. 2000). We would expect BSF to have a larger impact on marriage rates than MFIP.
- PREP, a relationship-skills program designed to improve couple relationships, increased the likelihood by 24 percentage points that couples were still married three

years after the program (Markman et al. 1988). Unlike BSF, the couples were married before the intervention and typically not low-income. It does suggest, however, that large impacts on marriage are possible.

- Early Head Start—a program designed specifically to improve outcomes for children—decreased scores on the Child Behavior Checklist of Aggressive Behavior by 0.7 scale points (Love et al. 2002). An intervention such as BSF that may affect the stability of the child’s family structure over a period of three years, and hence have cumulative effects, might have impacts at least as large as Early Head Start.

The pooled sample is also sufficient to detect impacts for important subgroups. We can likely detect even quite small impacts with a 50 percent subsample. Subgroups defined by the following characteristics are expected to make up 40 percent or more of the sample: whether the mother is African American, whether the mother is receiving public assistance, and whether the couple is cohabiting. If the impacts are large, we can also detect impacts for subgroups of 30 percent of the sample.

The sample size is large enough to examine impacts for groups of two to four sites (see the 30 percent and 50 percent subsamples in Table III.2). These groups of sites could be chosen for the similarities in how BSF is implemented in those sites or for the similarities in the communities in which the program is implemented. A subgroup of couples in Healthy Families’ sites, for example, would comprise about 40 percent of the sample.

Unless the impacts in a site are large—for example, a 7 percentage point increase in marriage—site-specific impact estimates are less precise and we will probably be unable to detect impacts for an individual site. However, because BSF adheres to a set of detailed, specific guidelines in each site (Hershey et al. 2004), it is meaningful to estimate an impact of the program using pooled data from all seven BSF sites.

D. ANALYSIS PLAN

Random assignment of couples to a program or control group ensures that the two groups of couples do not differ in any systematic way on any characteristic, observed or unobserved, at baseline. Hence, differences in means of outcomes between the program and control groups will provide unbiased estimates of the impacts of BSF.

To obtain more precise estimates, we will also use regression models to control for random differences in the baseline characteristics of program and control group members and estimate regression-adjusted means of the outcomes. To estimate regression-adjusted means, we will estimate the following model:

$$Y_{it} = \delta X_{i0} + \gamma \sum_{s=1}^7 S_{si} + \sum_{s=1}^7 \beta_s S_{si} * P_i + \varepsilon_{it} \quad (1.1)$$

where:

Y_{it} is an outcome variable for person, couple, child, or family i at time t

X_{i0} is a vector of baseline variables, with no intercept

S_s are indicators that equal 1 if the person, couple, child, or family is in site s and 0 otherwise

P is an indicator that equals 1 for program group members and 0 for control group members

β , δ , and γ are coefficients to be estimated

ε_{it} is a random disturbance term that is assumed to have a mean of zero conditional on X , S , and P .

Depending on the outcome considered, the unit of observation for the analysis might be the couple (for marital status, for example), the individual (for parent well-being, for example), the child (for child well-being, for example), or the family (for family income, for example).

The statistical techniques used to estimate the regression-adjusted impacts depend on the form of the dependent variable, Y . If the dependent variable is continuous, then ordinary least squares techniques will produce unbiased estimates of the parameter δ . However, if the dependent variable is binary—for example, whether the couple is married—then consistent parameter estimates can be obtained by using *logit* or *probit* maximum likelihood methods.

When calculating the standard errors of the coefficients, we will account for the clustering of individuals within sites. Although we will account for the variation within each site, we will assume that the sites in the demonstration are fixed and hence will not account for the between-site variation. We make this assumption because the sites were not selected randomly and so we cannot generalize the findings from the demonstration sites to a larger population of sites. Thus, we do not include site-specific error terms in equation (1.1).

The overall impact of BSF will be estimated by a weighted average of the estimated impacts of BSF in each site:

$$IMPACT = \sum_{s=1}^7 w_s * \hat{\beta}_s \quad (1.2)$$

where $\hat{\beta}_s$ is the estimated impact in site s from equation (1.1). We will set each site weight, w_s , to $1/7$ so that each site will contribute to the overall impact equally. We will investigate whether the overall impact findings are sensitive to this assumption by also estimating the impact with w_s equal to the share of the total sample in site s . This assumption gives greater weight to larger sites.

1. Impacts for Subgroups

To address whether BSF is more effective for some families than others, we will estimate the impacts of BSF on subgroups of the sample. These subgroups will be defined by their characteristics prior to random assignment. Subgroups of interest include those defined by:

- ***Socioeconomic characteristics*** such as age, race/ethnicity, citizenship, education, income, religiosity, multiple partner fertility, and the relationship between the respondent’s biological parents. We will also include measures of heterogamy (differences in) characteristics between the mothers and fathers.
- ***Couple relationships***, including the status, quality, and length of the relationship at baseline as well as attitudes toward marriage. We will also include time between first intercourse and random assignment as a proxy for the number of different partners each parent had prior to random assignment.
- ***Child characteristics***, which includes the child’s gender, whether pregnancy was unintended or mistimed, whether the child was born before the parents entered BSF, and, if the baby was born before entering BSF, the birth weight of the child.
- ***Other stressors and supports*** such as mental health, social support, sexual or physical abuse as a child, and involvement with the criminal justice system.

The estimate of the impacts for each subgroup can be obtained by adding to equation (1.1) a term that interacts the indicator for the program group, P_i , with a binary variable that indicates whether the sample member belongs to a subgroup G . The estimated impact for members of the subgroup G would be

$$IMPACT_G = \sum_{s=1}^7 w_s * (\hat{\beta}_s + \hat{\beta}_{gs}) \quad (1.3)$$

where $\hat{\beta}_{gs}$ is an estimate of the difference in the impact by subgroup.

2. Impacts According to How and Where BSF is Implemented

Although the main components of the BSF programs implemented in each site are similar, there are variations by site. Many of these variations occur because of differences in the settings—some BSF programs were embedded in existing programs, some were added to services offered by multi-program agencies, while others were created from the ground up (Dion et al. 2006). If, for example, BSF is embedded in a Healthy Families program, the family coordinators provide parenting and child development information during regular home visits as well as performing the other BSF roles. In contrast, in BSF programs that are not embedded in a

Healthy Families program, the family coordinators have less intensive contact with the couples and do not provide as much parenting and child development information. The differences across sites in the intervention will be documented in detail by the implementation analysis (as described in Chapter II).

To address whether BSF has different impacts depending on how and where it is implemented, we will estimate impacts by groups of sites. As discussed above, unless the impacts for an individual site are large, the sample sizes in each site are not large enough to estimate the impacts by site precisely. However, the sample sizes are large enough to estimate the impacts for groups of sites with a fair amount of precision. These can be obtained simply by aggregating the site-specific impact estimates, $\hat{\beta}_s$, in an equation similar to (1.2), but adjusting the weights so that they add up to one for each group of sites.

The implementation analysis will provide information on which site characteristics may affect the magnitude of the impacts and hence the grouping of the sites. Characteristics that may define the site groups include:

- Type of host organization, including whether the BSF was built on a Healthy Families program, as part of a multi-program agency, or as a stand-alone program
- The intensity of the family coordinator role
- The primary recruitment source—hospitals, public health clinics, or other
- The fidelity of the implementation of the program to the model
- The cost per couple of the program

As five of the seven sites use one curriculum, *Loving Couples*, *Loving Children*, we are unlikely to be able to detect differences in the impacts by groups of sites defined by the curriculum they use.

3. Impacts on Marital and Relationship Quality and Other Outcomes Dependent on Relationship Status

Estimating the impacts of BSF on relationship quality poses particular challenges because most measures of relationship quality can be defined only for people who are in a relationship. For example, the extent to which a couple is satisfied with their romantic relationship cannot be measured for couples who are no longer in a relationship. As, inevitably, some couples will have split up by the time of follow-up data collection, some domains of relationship quality will not be defined for some sample members.

The advantages of random assignment could be lost when an outcome is only observed for a subset of program and control group members, and the subset is not determined randomly but could be affected by the intervention. If, as expected, the program affects the likelihood of staying together, the underlying characteristics of the intact program couples may differ from those of intact control couples. Consequently, a comparison of the mean (or regression-adjusted mean) relationship quality in the program and control groups may yield a biased estimate of the effect of BSF on relationship quality. This is because the difference between the mean outcomes in the program and control groups may be due to these underlying differences, rather than any effect of BSF on relationship quality.

Given that BSF aims to support healthy marriage through improving couple relationships, it is very important to examine program impacts on measures of relationship quality. We have identified three approaches to address this difficult analytic issue related to the availability of relationship quality outcomes for couples who are not together at followup.

a. Place a value on Relationship Quality When the Couple Splits Up

One approach to dealing with this type of problem is to assign a value to the outcome when it is not observed. For example, if the outcome is the level of commitment in a relationship or

the time the couple spends together, it may be appropriate to assign the lowest possible value to the measure of commitment for couples who have split up. However, for most domains of relationship quality, it is not clear what value should be assigned to couples who split up. For example, it would be inappropriate to assign a value of zero to a conflict-management scale for couples who split up, as it is possible that a relationship with poorly managed conflict has different effects than a lack of a relationship for both the parents and the child.

b. Create Outcomes that Combine Relationship Status and Quality

A second approach is to define outcomes that combine relationship status and relationship quality and hence are observed for all sample members. For example, one outcome may be “in a marriage with well-managed conflict.” This outcome would have a value of one if the couple is married and scores above a preset “cutoff” in conflict-management skills and zero for an unmarried couple or a married couple with conflict-management skills below the cutoff. As this outcome is defined for all sample members, the difference-in-means estimator is unbiased. While we cannot infer from these estimates that BSF improves relationship quality, we can infer that BSF increases the likelihood of being in a good-quality relationship.

We propose to estimate the impacts on all combinations of measures of relationship status and relationship quality. There will be at least 24 different outcome measures—at least three measures of relationship status (whether married, whether romantically involved and cohabiting, and whether romantically involved but not cohabiting) and eight measures of relationship quality (satisfaction, conflict, violence, supportiveness and intimacy, time spent together, commitment, trust, and fidelity). We will use factor analysis to determine whether we can combine some measures of relationship quality so that we can reduce the number of outcomes.

For each outcome variable, we will present the impacts on the probabilities of being in a relationship with a quality above the cutoff, the probability of being in a relationship with quality below the cutoff, and the probability of being in no relationship. Presenting the impacts on all three outcomes will clearly show how BSF changes the distribution of couples across the no relationship, poor-quality relationship, and high-quality relationship categories. We will test whether the distributions of outcomes in the program and control groups are the same using a Chi-squared test. We will also experiment with using more than two categories for the quality of the relationship.

An example of the presentation of these findings is shown in Table III.3. In this hypothetical example, BSF increases the likelihood of marriage by 15 percentage points. BSF increases the likelihood of being in a “happy” marriage by 10 percentage points, but at the same time increases the likelihood of being in an unhappy marriage by 5 percentage points. This increase in unhappy marriages could occur even if BSF improves the happiness of relationships because the characteristics of couples in the program group who marry differ from the characteristics of couples in the control group who marry.

TABLE III.3
HYPOTHETICAL TABLE ILLUSTRATING THE PRESENTATION OF IMPACTS
ON OUTCOMES COMBINING RELATIONSHIP STATUS AND QUALITY

Outcome	Mean		BSF Impact
	Program Group	Control Group	
Married and Happy with the Relationship ^a	40%	30%	+10
Married and Not Happy with the Relationship ^a	35%	30%	+5
Not Married	25%	40%	-15

^aA sample member is counted as being “happy with the relationship” if they score above 5 on a scale from 1 to 10.

One challenge with this approach is deciding on the “cutoff” between a higher-quality relationship and a lower-quality relationship. Ideally, we would like the cutoffs to have some interpretation, such as the likelihood of the relationship surviving or whether the relationship is good or bad for the children. However, the current state of knowledge about the role of different domains of relationships is not advanced enough to be able to do this. Hence, we propose to use cutoffs based on the relationship quality of control group sample members. For example, the cutoff could be the 20th percentile of the relationship quality of control group sample members who are in relationships at followup. We will use multiple cutoffs to test the sensitivity of findings to the choice of cutoff.

c. Estimate the Impact on Relationship Quality for Couples Who Would Stay Together Even if they Did Not Participate in BSF

A disadvantage of the approach to combining relationship status and quality into outcome measures is that we lose the variation in the relationship quality scales by defining cutoff values to denote high versus low quality. The third approach retains the original scale on relationship quality and estimates the impact of BSF on relationship quality on the group of couples who would have remained together even without BSF. The couples in the control group who stay together through the first follow-up period have remained together even though they did not participate in BSF. We assume that they would also stay together if they were in BSF. The goal is to compare relationship quality among these couples in the program group with couples in the control group who also would have stayed together with or without BSF (Frangakis and Rubin 2002); the challenge is identifying those couples.

We plan to use model-based approaches (Zhang and Rubin 2003; Zhang et al. 2005, 2006) to jointly model relationship status and relationship quality. We assume that there are three types of couples: those who will stay together whether they are in BSF or not, those who will break up

whether they are in BSF or not, and those who will stay together if they participate in BSF but will split up if they do not participate in the program. We assume that there are no couples who would split up if they participated in BSF but would stay together if they were not in BSF. Given a set of assumptions, Zhang and Rubin (2003) provide bounds on the impacts of BSF on relationship quality of couples who would remain together with or without BSF. Using covariates that predict relationship status, we will also use the likelihood-based methods of Zhang et al. (2005, 2006) to obtain more precise estimates of the effect of BSF on the relationship quality of couples who would remain together with or without BSF.

Although the findings from this analysis will be highly suggestive, it will be difficult to infer conclusively that any impacts of BSF on relationship status are the result of an increase in relationship quality. It may be, for example, that BSF improves relationship quality only for those couples who are committed enough that they would have stayed together anyway. Conversely, BSF may improve relationship quality only among couples with poorer relationship skills and not affect the relationship quality of those who would have stayed together irrespective of BSF participation.

4. Impacts of Program Participation

As mentioned above, random assignment is conducted before it is known for sure whether couples will actually participate in BSF. Couples in the program group will be offered the opportunity to receive BSF services, but whether they receive the services is uncertain. To be sure, program staff in general—and family coordinators specifically—will encourage all members of the program group to participate in the group sessions and meet with family coordinators. Yet, inevitably, some couples may decide not to participate in the program.

The difference in the (regression-adjusted) means of the outcomes in the program and control group yields an estimate of the “intent-to-treat” impact. This is the impact of the offer of

participating in BSF rather than actual BSF participation. The estimates indicate the impacts on all program group members, including those who may never attend a group session or meet with a family coordinator.

Analytically, it is straightforward to estimate the impacts of participation in BSF, as opposed to the impacts of the offer of participation as in the intent-to-treat models. The impacts of participation are calculated by dividing the intent-to-treat impact estimates by the proportion of the program group members who participated at some level in BSF (Bloom 1984). To see why this is the case, the intent-to-treat impact ($IMPACT_{it}$) can be written as a weighted average of the impacts of the program on those who participate ($IMPACT_p$) and those who do not ($IMPACT_{np}$), where p is the proportion of the program group that participates in BSF.

$$IMPACT_{it} = pIMPACT_p + (1 - p)IMPACT_{np} \quad (1.4)$$

Assuming that for non-participants, $IMPACT_{np}$ is equal to zero, then:

$$IMPACT_p = IMPACT_{it} / p \quad (1.5)$$

The key assumption is that BSF has no impact on those who do not participate ($IMPACT_{np}=0$). This assumption will guide our definition of non-participation. To be sure this assumption holds, we will define program group members as non-participants only if neither they nor their partners have met with a family coordinator or attended a group session.

Estimating the effects of BSF for couples with varying levels of intensity of program participation is a more difficult issue. The adjustment for nonparticipation described above can not be applied to couples who receive some services from BSF--even if it is just meeting with a family coordinator. If the couple receives any services from BSF, the assumption of no program impact on this couple may not be justified.

Couples who choose to participate more intensely in the program may have different characteristics than those who do not. Thus, we cannot compare the outcomes of program group members who participate intensely in BSF with the outcomes of all members of the control group—more complicated analytical procedures are needed to estimate the impacts of BSF for those who participate at different levels of intensity. For this reason, we will compare the outcomes of program group members who participate intensely in BSF with control group members who *would have* participated intensely in BSF if they were in the program group. These control group members can be identified using their baseline data and propensity scoring methods that identify the control group members who most closely match members of the program group who participate intensely. The same approach can be used to estimate the impacts of participating in BSF less intensely.

Using data collected on program participation from the study MIS, we will categorize program participants into at least three groups: (1) those who do not participate, (2) those who receive a small “dose” of the program, and (3) those who participate intensely and receive a large dose of the program. We will experiment with different measures of the size of the program dose. One definition of “large” dose, for example, may be participation in at least eight hours of group sessions and meeting at least once with a family coordinator.

In interpreting the findings from this analysis of dosage, two issues need to be borne in mind. First, we will estimate the impacts of a high dose of the program to those who receive it and this should not be interpreted as the effect of increasing the dose for everyone. This is because the impact of the higher dose may be effective only for those couples with the characteristics that encourage them to participate more. Second, we can only identify the control group members who would have received a high dose of the program by matching on observed

characteristics. While we will have collected a rich set of baseline characteristics which can be used in the matching procedures, the two comparison groups may still differ in *unobserved* ways.

5. Pathways through which Impacts Occur

In the conceptual framework for BSF, the impacts on child and parent well-being are primarily mediated through the program’s impact on the parents’ relationship. So while the program may have direct effects on child and parent well-being—through referrals to services, for example—these direct effects are thought to be less likely than the effects that are mediated through the parents’ relationship.

While we cannot identify rigorously the pathways by which the program affects child and parent well-being, we can explore whether the magnitudes of the impacts on parents’ relationship are consistent with the magnitudes of estimated impacts on parent and child well-being. This “mediated analysis” is possible because we will observe the relationship of the parents at 15 months after random assignment and child and parent well-being outcomes at 36 months after random assignment.

The mediated analysis begins by estimating the relationship between a child and parent outcome at 36 months (Y_{36}) and a set of relationship measures that may act as mediators (REL_{15}). This relationship can be estimated by estimating a model such as:²

$$Childoutcome_{36} = \alpha + \beta P + \eta REL_{15} + \partial X + \varepsilon \quad (1.6)$$

²This model can easily be extended to estimate individual site-specific impacts as we did in equation (1.1). We show it in this simpler form for ease of exposition. Also, multiple relationship variables can be included in the model.

The estimated impact of BSF on children at 36 months can be then written as:

$$IMPACT_{on\ child\ outcome}_{36} = \hat{\beta} + \hat{\eta} * IMPACT_{on\ RELATIONSHIP}_{15} \quad (1.7)$$

where $\hat{\beta}$ and $\hat{\eta}$ are estimates of β and η in equation (1.6) and the $IMPACT_{on\ RELATIONSHIP}_{15}$ is estimated from equation (1.1) with parents' relationship outcomes at the 15-month followup as the dependent variables. The larger $\hat{\eta} * IMPACT_{on\ RELATIONSHIP}_{15}$ is compared to $\hat{\beta}$, the more the impacts on child outcomes are likely to be mediated via the impacts on the parents' relationships.

While these mediated analyses might be useful in suggesting possible pathways for the impacts of the program, they should be interpreted with caution. Child outcomes at 36 months and relationship measures at 15 months may be correlated, even if there is no causal relationship between parent's relationships and child outcomes. For example, some characteristics of the family that are not included in X in equation (1.7) may lead to both good child outcomes and good relationships. In this case, the mediated analysis will overstate the role the impact on relationships plays in the impact on child outcomes.

6. Survey Non-Response

Inevitably, some sample members will not respond to the surveys and this non-response, if unaddressed, could lead to misleading impact estimates for two reasons. First, while random assignment ensures that the characteristics of all program group members and control group members are similar, it does not ensure that the characteristics of the members of the program and control groups will be similar among those who respond to the survey. Impact estimates will be biased if program group members who respond to the survey differ from the control group members who respond. Second, if the characteristics of respondents differ from the

characteristics of non-respondents, the impact estimates will only be generalizable to those who respond. So, we would not be able to come to conclusions about BSF's effectiveness among *all* those in the sample, but rather only those sample members who responded to the survey.

We will address this problem by creating weights for the sample members who respond. The weights will be chosen so that the observable weighted characteristics of the respondents in each research group are similar to the full sample in each research group. Hence, respondents with characteristics associated with lower survey response will be given larger weights than those with characteristics associated with higher survey response. The weights will be constructed using the data we collected on all sample members using the baseline information form.

IV. DATA COLLECTION FOR THE IMPACT ANALYSIS

Chapter III described our plans for analyzing the effectiveness of BSF. This chapter describes the necessary data for this analysis, data sources, and our collection plan. The data needed for the impact analysis can be grouped into two broad types: (1) baseline data and (2) follow-up outcomes data. This chapter presents our plans for collecting both types. Chapter V presents a detailed discussion of the specific follow-up outcome measures we will collect on the 15-month follow-up survey.

A. DATA NEEDS

The impact analysis requires two general categories of data: (1) baseline data documenting the circumstances and characteristics of sample members at the time of (or prior to) random assignment, and (2) data describing the outcomes of sample members and their children during the period after random assignment. In this section, we describe both the baseline and outcomes data needed for the impact analysis.

1. Baseline Data

Baseline data are required for the impact analysis for three broad reasons. First, they are needed for tracking and identifying sample members. Information such as name, gender, date of birth, and social security number is needed to check that the person has not previously been randomly assigned. Good contact information is also necessary to locate sample members and achieve a high response rate on the follow-up surveys.

Second, baseline data can be used to describe the types of couples who are recruited for BSF. This is important contextual information—it will be used to describe the population being served. The data will also be used to check the integrity of random assignment. If random

assignment is well implemented, the characteristics of members of the program and control groups should be very similar.

Third, baseline data can be used to enhance the impact analysis. With random assignment, baseline data are not required to estimate program impacts—the simple differences in the means of outcomes between the two research groups will provide unbiased estimates of the effect of the program. Even so, baseline data will be used in the impact analysis in four ways:

- ***Defining Subgroups.*** To assess the effectiveness of BSF for different populations, we will estimate impacts for subgroups defined by sample member characteristics at baseline. Therefore, baseline characteristics of particular interest will be those that we expect will affect the size of the impact.
- ***Including Covariates in Regressions.*** Although difference-in-means estimates are unbiased, more precise estimates can be obtained by calculating the difference in regression-adjusted outcome means. These regression-adjusted means are estimated from regression models that include covariates that are expected to explain some of the variation in the outcomes.
- ***Using Non-experimental Methods.*** Although most of our analyses will exploit the experimental design, we all also use non-experimental methods for some analyses—for example, to estimate the impact of greater participation in BSF. These methods require detailed baseline information in order to match participants to similar members of the control group.
- ***Adjusting for Non-response.*** Inevitably, some parents will not respond to the follow-up surveys. If there is a difference between the program and control group in the characteristics of those who respond to the survey, and these characteristics are correlated with the outcome of interest, the impact estimates will be biased. Baseline data can be used to develop weights that can be used to adjust for survey non-response.

We will collect five broad categories of baseline data, as presented in Table IV.1. First, we will gather identifying and contact information for all sample members. These data are needed to conduct random assignment and to locate sample members for follow-up surveys. Information on the child’s birth date will be used to determine the timing of the 36-month follow-up data collection. It will also be used during follow-up interviews to identify the child

TABLE IV.1

BASELINE INFORMATION AND DATA SOURCES

Item	Data Source	
	Baseline Information Form	15-Month Survey
Identifying and Locating Information		
Name		
Social security number		
Address		
Date of birth	X	
Telephone number		
Names and addresses of friends and relatives		
Child's birth date		
Socioeconomic and Demographic Characteristics		
Age		
Gender		
Race/ethnicity		
Primary language		
Whether completed high school		
Whether working at baseline		
Date last worked		
Total earnings in previous 12 months	X	
Receipt of public assistance		
Religiosity		
Number of children with BSF partner		
Number of children with other partners		
Country of birth		
Length of time lived in the US		
Whether grew up with biological mother and father		X
Whether biological parents were ever married		
Couple Relationship at Baseline		
Marital status and history		X
Whether cohabiting		
Perceived likelihood of marriage with BSF partner		
Length of time knew partner before pregnancy		
Satisfaction with conflict management		
Intimacy (showing love and affection)		
Supportiveness	X	
Perception of fidelity		
Commitment		
Friendship		
Attitudes toward marriage		

Table IV.1 (continued)

Item	Data Source	
	Baseline Information Form	15-Month Survey
Other Stressors and Supports		
Mental health status	X	
Social support		
Age at first sexual intercourse		
Whether victim of childhood sexual abuse		X
Whether victim of childhood physical abuse		
Whether ever incarcerated before baseline		
Whether ever convicted of a crime prior to baseline and length of longest sentence		
Child Characteristics		
Whether entered BSF prior to birth of baby	X	
Whether pregnancy was unintended or mistimed		
Gender of baby		
Birth weight of baby		X
Whether part of a multiple birth		

who led to the couple's eligibility for BSF, who will be the focus of many of the follow-up survey questions.

Second, we will collect data on the demographic and socioeconomic characteristics of all sample members. These variables will be used both to define subgroups and as covariates in the regression models. These data will also be used to construct measures of differences in characteristics between partners that may affect the success of their relationship—such as age and race/ethnicity. We will collect the following demographic and socioeconomic characteristics:

- ***Demographic Characteristics.*** These include age, gender, race/ethnicity, primary language, and country of birth.
- ***Socioeconomic Status.*** These include education, work history, earnings, and receipt of public assistance.
- ***Religiosity.*** Religiosity has been linked to marital satisfaction, stability, commitment, conflict, and divorce as well as to family functioning and child outcomes (Lippman et al. 2005).
- ***Multiple Partner Fertility.*** Multiple partner fertility is frequent among unwed parents and may reduce the likelihood of a successful relationship (Mincy 2002).
- ***Family of Origin.*** We include the relationship status of the parent's own biological parents, since this has been found to be a strong predictor of the success of relationships (Amato and Booth 1997).

Third, we will collect information on the couple's relationship at baseline. As with other baseline information, these data will be used both to define subgroups and as covariates. They include the following aspects of the relationship:

- ***Relationship Status.*** We will ask whether the BSF couple is in a steady romantic relationship or in an on-again/off-again relationship at baseline and whether they are cohabiting at this point. We will also ask both members of the couple their perceptions of the likelihood that they will marry their BSF partner some day.
- ***Relationship History.*** We will ask about each partner's marital history prior to program entry.

- ***Relationship Quality.*** We will ask about various aspects of the couple's relationship at baseline, including conflict management, intimacy, supportiveness, perceptions of fidelity, commitment, and friendship.
- ***Attitudes toward Marriage.*** We will also ask sample members about their general attitudes toward the value of marriage.

Fourth, we will collect information on other stressors and supports that (1) may affect the size of program impacts, and therefore be useful for the impact analysis, or (2) are highly correlated with outcomes of interest, and thus useful in multivariate analysis. This information includes:

- ***Mental Health.*** Mental health problems are prevalent among this population and have been linked to poor relationship and parenting outcomes (Karney and Bradbury 1995). We will measure mental health status using a brief six-item mental health screening tool known as the "K6," which was developed by Ronald Kessler, a professor at Harvard Medical School. The K6 has been widely tested and used in many other surveys (Kessler et al. 2003).
- ***Social Support.*** Many of the BSF program staff cite lack of social support as a significant challenge in many of the BSF families' lives. At baseline, we will ask two questions concerning the extent of parents' social support networks. In particular, we will ask whether there is someone they can ask to care for their child in an emergency and whether there is someone from whom they can borrow \$100.
- ***Childhood Abuse.*** Studies have shown that women who have been sexually or physically abused as children are less likely to be married or in stable relationships as adults (Cherlin et al. 2004). Therefore, we will ask two questions concerning whether sample members were victims of physical or sexual abuse as children.
- ***Age at First Intercourse.*** Sample members with more sexual partners prior to baseline may be less likely to commit to a monogamous relationship with their BSF partners. Age at first intercourse has been shown to be highly correlated with the number of sexual partners and therefore a good proxy for this measure (U.S. Department of Health and Human Services 1997).
- ***Criminal History.*** Research has shown that a history of involvement in the criminal justice system may be fairly common among the men in the BSF target population and that incarceration has negative effects on child and family well-being (Western 2004).

Finally, we will collect some information on the BSF child's characteristics at baseline. One of the most important of these characteristics for the impact analysis is whether the couple enters

BSF before or after the child is born. Determining if impacts differ by whether the couple enters pre- or postnatally will help us determine if one of these strategies for targeting couples for the intervention is more effective. The child's sex is also an important baseline characteristic, because it has been linked to the likelihood of marriage after conception, with unwed parents of boys more likely to marry than similar unwed parents of girls (Lundberg and Rose 2003). The child's birth weight will be used as a proxy for the baby's health.

2. Data on Outcomes

Data on outcomes are necessary to determine the effectiveness of BSF in meeting its goals.

The outcome measures that we will collect fall into four general categories (Table IV.2):

1. **Services.** Data on receipt of relationship skills and marriage education, home visits, and other support services will help us determine the difference between the services received by the program and control group members and hence the intensity of the intervention.
2. **Parents' Relationship.** The key outcomes related to the parents' relationship include marriage, relationship status and stability, living arrangements, attitudes toward marriage, quality of the relationship, co-parenting, and whether there is a relationship with a new partner.
3. **Family Outcomes.** These outcomes are related to how the family is structured and functions. They include outcomes related to parenting and father involvement, family structure and who the child lives with, the self-sufficiency of the family, and parent well-being.
4. **Child Outcomes.** The ultimate aim of BSF is to improve child development and well-being. Thus, collecting data on child outcomes will be an important part of the impact analysis. The child outcomes of most interest include the economic resources available to the child and the child's socio-emotional and language development, as these are most likely to be affected by the intervention.

The specific outcome measures we plan to collect in each of these areas on the 15-month follow-up survey are discussed in detail in the next chapter.

TABLE IV.2

OUTCOMES AND THEIR DATA SOURCES

Outcome	Data Source		
	15-Month Survey	36-Month Survey	36-Month Direct Assessment
Services Received			
Marriage and Relationship Skills Education Whether attended groups, workshops, or classes Number of hours spent in groups, workshops, or classes Whether usually participated with BSF partner Whether attended one-on-one or one-on-two sessions Number of hours spent in these sessions Whether usually participated with BSF partner	X		
Home Visits and Other Support Services Whether received home visits, and number of visits Whether received parenting education Whether participated in job training Whether received employment-related services Whether participated in an education program Whether received mental health or substance abuse services Whether participated in anger management or domestic violence programs	X	X	
Parents' Relationship			
Marital/Relationship Status Marital status of BSF parents at follow up (married, separated, divorced, never married) Whether still romantically involved Whether cohabiting Frequency of contact If applicable, when the relationship ended and the reason relationship ended If not married, whether engaged and have plans to marry Chances of marrying the BSF partner in the future	X	X	
Attitudes Attitudes toward marriage	X	X	
Relationship Quality Overall happiness with relationship Conflict management Interactions, communication, and time spent together Emotional and sexual intimacy and supportiveness Commitment and trust Fidelity Domestic violence from BSF partner and other partners	X	X	
Coparenting Communication and problem solving between parents Trust in other parent's parenting skills and judgment Work as a team for the child Trust in commitment of other parent to the child Satisfaction with responsibility (including financial) taken by other parent Recognition of the importance of the other parent in the child's life	X	X	

Table IV.2 (continued)

Outcome	Data Source		
	15-Month Survey	36-Month Survey	36-Month Direct Assessment
Relationship with New Partner Number of sexual relationships since random assignment Whether currently in a new romantic relationship Whether married to new partner Whether cohabiting with new partner Number and length of marriages since baseline Quality of relationship with new partner (36-month only)	X	X	
Family			
Parenting and Father Involvement <i>Quantity and Quality of Time Spent with Child</i> Whether father has had contact with child in past year Amount of time BSF parent spends with child Frequency of activities conducted with child (e.g., play games, change diapers) Observation of parenting behaviors at 36 months (yet to be specified) <i>Parental Stress</i> Whether father and/or mother feel stress in their role as parents <i>Harsh Discipline</i> Whether either BSF parent spans the child and frequency Whether new partner spans the child and frequency <i>Material Support Provided BSF Child</i> Whether paternity has been established Whether establishment was voluntary Child support (whether legal order, amount of order, amount paid) Informal child support (amount of cash and in-kind) Contribution of each parent to cost of raising child	X	X	X
Family Structure <i>BSF Child's Living Arrangements</i> Whether the child lives with mother, father, both parents, or someone else Number of months child lived with each BSF parent since baseline Number of months child lived with both BSF parents together since baseline <i>Fertility</i> Number of children born or conceived since BSF focal child Number of children born or conceived with BSF parent <i>Household Structure</i> Number of children who live with BSF parent Number of children who live with, and are the responsibility of, the BSF parent Number of adults in the household Number of persons in the household (36 months only) Relation of the adults in the household to focal child (36 months only)	X	X	

Table IV.2 (continued)

Outcome	Data Source		
	15-Month Survey	36-Month Survey	36-Month Direct Assessment
<p>Family Self-Sufficiency</p> <p><i>Employment and Earnings</i></p> <ul style="list-style-type: none"> Whether currently working Number of months worked in the past year Hours worked per week in past month Earnings in past month/last month worked <p><i>Public Assistance Receipt</i></p> <ul style="list-style-type: none"> Amount of TANF received in previous month Amount of food stamps received in previous month Amount of SSI or SSDI received in previous month Amount of Unemployment Insurance received in previous month <p><i>Income</i></p> <ul style="list-style-type: none"> Own earnings Earnings from spouse or cohabiting partner Amount of child support received Amount of money received from friends and relatives <p><i>Asset Accumulation</i></p> <ul style="list-style-type: none"> Whether respondent owns a car, truck, or van Whether respondent owns his/her home <p><i>Sharing Financial Resources with Current Partner</i></p> <ul style="list-style-type: none"> Whether they have a joint bank account Whether they pool income Whether they share household expenses <p><i>Material Hardship</i></p> <ul style="list-style-type: none"> Whether during the past year was unable to pay rent, mortgage, or utility bills Whether during the past year was evicted from residence Whether during the past year had their electricity or water service cut off <p><i>Health Insurance Coverage</i></p> <ul style="list-style-type: none"> Whether respondent has health insurance and, if so, whether public or private Whether BSF child has health insurance and, if so, whether public or private 	X	X	
<p>Parent Wellbeing</p> <p><i>Mental Health</i></p> <ul style="list-style-type: none"> 12-item Center for Epidemiologic Studies Depression Scale (CES-D) Functional impairment as a result of depression <p><i>Physical Health</i></p> <ul style="list-style-type: none"> Respondent report on general physical health <p><i>Substance Use</i></p> <ul style="list-style-type: none"> Frequency of binge drinking Functional impairment from drinking or drug use 	X	X	

Table IV.2 (continued)

Outcome	Data Source		
	15-Month Survey	36-Month Survey	36-Month Direct Assessment
<i>Criminal Involvement</i> Number of times arrested since baseline Whether incarcerated at followup <i>Social Support</i> Emotional support (number of people with close confiding relationships) Tangible support (access to practical help) Validation support (having friends ready to settle down and who support the relationship with the BSF partner)			
Child Wellbeing			
Economic Resources Available to the BSF Child Whether the child is in poverty Whether the child has health insurance and, if so, whether public or private	X	X	
Social-Emotional Development Self-Regulation Social Competence Externalizing behaviors Internalizing behaviors Attachment		X	X
Language Development Receptive Expressive		X	X

B. DATA SOURCES

Data for the impact analysis will be collected at a minimum of three points in time:

- **Baseline.** An eligibility checklist, baseline information form, and contact form will be completed for all the mothers and fathers in the sample just prior to random assignment. These forms (presented in Appendix D) are currently being used by the sites.
- **First Follow-up (15 months after random assignment).** A telephone survey will be attempted with all mothers and fathers about 15 months after they have been randomly assigned. This survey is finalized. Data collection will start in FY 2007 and is expected to be completed in FY 2009.
- **Second Follow-up (when the focal child is 36 months old).** The second follow-up data collection will be conducted when the couple's child is about 36 months old. This round of data collection will start in FY 2008 and will be completed in FY 2010. It will again include interviews with both members of the couple, and will also include a direct (in-person) assessment of the child to gather detailed information on child development outcomes. We are currently designing this survey and assessment.

A later follow-up survey may be conducted if findings from the first two follow-ups warrant further data collection.

1. Baseline Data Collection

Most baseline data will be collected at sample intake (prior to random assignment) on sample intake forms. It is preferable to gather these data prior to random assignment for three reasons. First, since completion of the baseline information form is a criterion for study eligibility, baseline data will be available for all sample members. Second, collecting data prior to random assignment avoids the possibility that responses may be influenced by sample members' research status or (for program-group members) their exposure to the program. Third, it avoids recall error problems that may occur if this information is collected at a later point.

However, to keep the baseline information form short and to avoid asking certain sensitive questions at the time of sample intake, we will collect some information on background characteristics on the 15-month survey. We have limited this information to those items that we

expect will be easily and accurately recalled by respondents, such as marital histories, country of birth, and whether their biological parents were ever married. In addition, we have saved some of the more sensitive baseline items for the 15-month survey to avoid discouraging some sample members from enrolling in BSF. These include items such as criminal history, physical and sexual abuse as a child, and age at first intercourse.

2. Outcomes Data Collection

The outcomes data will be collected from three sources:

1. Telephone surveys of both the mothers and fathers at 15 months after random assignment
2. A survey of mothers and fathers conducted either over the telephone or in person (in conjunction with the direct child assessment) when the focal child is 36 months of age
3. A direct assessment of the child when the child is 36 months of age

The two follow-up surveys will each have a slightly different focus, with the first survey focusing more on shorter-term outcomes and the second survey on longer-term outcomes. In particular, the first survey—conducted 15 months after random assignment—will focus on measuring in detail the quality of the parents’ relationship. Because relationship quality is a complex and multi-faceted concept, it will require considerable survey time to fully examine all the key aspects (happiness, conflict management, domestic violence, communication, intimacy, supportiveness, friendship, commitment, trust, and fidelity). In addition, the first survey will include questions on service receipt.

The second survey—conducted when the BSF child is 36 months old—will focus less on relationship outcomes and will not cover service receipt. It will instead place a greater emphasis on child outcomes. We will wait until the second survey to collect detailed information on child outcomes for three reasons. First, much of the time available on the first survey needs to be devoted to measuring the quality of the parents’ relationship. Second, we also expect any impacts

on children to grow over time, as the effect of an intact relationship may be cumulative. Third, many common assessment tools used to measure child well-being and development are more appropriate with somewhat older children (age 3 instead of age 1, for example).

Due to the difference in the focus of the two surveys, the timing of the first telephone interview is tied to the timing of random assignment, while the timing of the second telephone interview is tied to the age of the BSF child. To collect information on service receipt and the parents' relationship, it is important to have a similar length follow-up period for all parents, requiring the survey to occur at a time that is linked to the point of random assignment. However, in order to measure child outcomes, the children should be similar ages. Hence, we will conduct the second follow-up when the focal child is about 36 months of age, rather than 36 months after random assignment. As parents can enter BSF as early as six months before their child is born or up to three months after their child is born, the second follow-up period will range from about 33 to 42 months after random assignment. Therefore, the exposure to the intervention will vary somewhat across sample members at the second follow-up.

C. DATA COLLECTION PLAN

The plan for collecting data for the impact analysis involves ongoing collection of baseline data and the administration of the surveys and assessments.

1. Baseline Data Collection

BSF intake workers will administer the baseline data collection. They will complete the eligibility checklist, ask the parents to read and sign the consent form, and administer the baseline information form to parents once they have signed the consent form. The intake workers have been trained on how to administer this data collection. The form takes about nine minutes to complete. If the parents are together at intake, the BSF intake worker asks the couple to separate and complete the form in private. This is important because the form asks questions

about the quality of the relationship and other personal information that the parent may be reluctant to answer or might answer incorrectly with his or her partner present.

2. Follow-Up Data Collection: Surveys and Assessments

a. Mode of Administration

All 15-month interviews will be completed by telephone from MPR's telephone survey center in Princeton, New Jersey. If the parent does not have a telephone or cannot be reached by telephone, a field locator will locate the respondent. The field locator will ask the parent to call MPR's telephone center to complete the interview while he or she is there. The parent will have the option of either using a cellular telephone provided by the field locator or using his or her own telephone to call a toll-free telephone number. If the parent is unable to complete the interview while the field locator is there, the locator will probe for a telephone number at which the parent may be reached or, as a last resort, leave a toll-free number for the parent to call at his or her convenience.

The second follow-up survey interview will be completed either by telephone or in a face-to-face interview with the parent, and the child assessment will be completed with the couple's child in the child's home. If possible, we will complete the survey with one or both of the parents in a face-to-face interview at the time of the child's assessment. The survey will be conducted by telephone with parents who are not present at the assessment.

We will use computer-assisted telephone or personal interviewing (CATI or CAPI) for all data collection. Computer-assisted interviewing reduces respondent burden by automating skip logic and question adaptations and allows interviewers to progress from question to question without having to refer back to previous answers to questions to check whether a follow-up question should be asked. Computer assisted interviewing reduces vulnerabilities to interviewer error by controlling question logic, and including consistency checks, and probes. It also

eliminates the need to call back respondents to obtain missing data, because inconsistencies in responses are corrected during the interview process.

b. Sample Retention

To minimize attrition from the study sample, we will focus on locating hard-to-find study participants (typically the greatest threat to response rates) but also include techniques for avoiding refusals.

Advance Letters. Prior to the release of the case in each wave of data collection, we will send each member of the couple an advance letter in an “address correction requested” envelope. The letter will remind them of the study and inform them that someone will be calling to conduct or schedule an interview and assessment, if applicable. The letter will also include a toll-free number that they can call to schedule an interview. All mailings returned as undeliverable will result in immediate telephone locating (as describe below).

Contact Information Updates. During baseline data collection, we ask both members of the couple to provide us with the names, addresses, and telephone numbers of friends and relatives that will know how to contact them. Participants will be asked to update this locating information again at the 15-month data collection.

Between the 15-month and the second follow-up, we will also mail a card requesting that each parent update his or her contact information. Mail returned by the post office will alert us to the need for additional telephone locating measures well ahead of the next scheduled data collection. We also propose to ask the BSF programs for updated information on parents and children in the program group.

In-House Telephone Locating. If we are unable to obtain a telephone number at which we can reach the parent, we will start our in-house telephone locating procedures using the following search techniques:

1. ***Accurint (Individual Look-up Mode).*** This comprehensive database is compiled from multiple sources, including the three major credit bureaus, motor vehicle administrations, the U.S. military locator file, white pages directories, voter registration lists, and other public and private sources (magazine subscriptions, warranty cards, and even pizza delivery databases). Accurint provides not only current addresses and telephone numbers—including unlisted numbers, if available—but also all previous addresses on record. Previous addresses often belong to a relative of the parent; these individuals can often provide information about the parent’s current whereabouts.
2. ***Other Online Databases (e.g., Lexis Nexis, Metronet).*** Different databases sometimes contain different data and, for cases that are difficult to locate, we typically try several different avenues.
3. ***Directory Assistance.*** Several directory assistance services are available; the accuracy of information varies with each. Although expensive, directory assistance is a useful and quick source for telephone numbers when an address is known.
4. ***Reverse Directories.*** Reverse or “criss-cross” directories enable us to look up the phone number associated with a given address. These are helpful for contacting neighbors and even the parents themselves if we suspect they are living at a specific address.
5. ***Locating Letters.*** Another letter will be sent to parents who are reluctant to conduct the telephone survey. This letter will explain the importance of the study and describe the incentives for participation.

Field Locating. If all search efforts by telephone fail, we will use field locators to search for participants. Field locating staff will approach neighbors residing in close proximity to the parent’s last known address and use neighborhood resources such as local post offices, churches, bars, or community centers as sources of information.

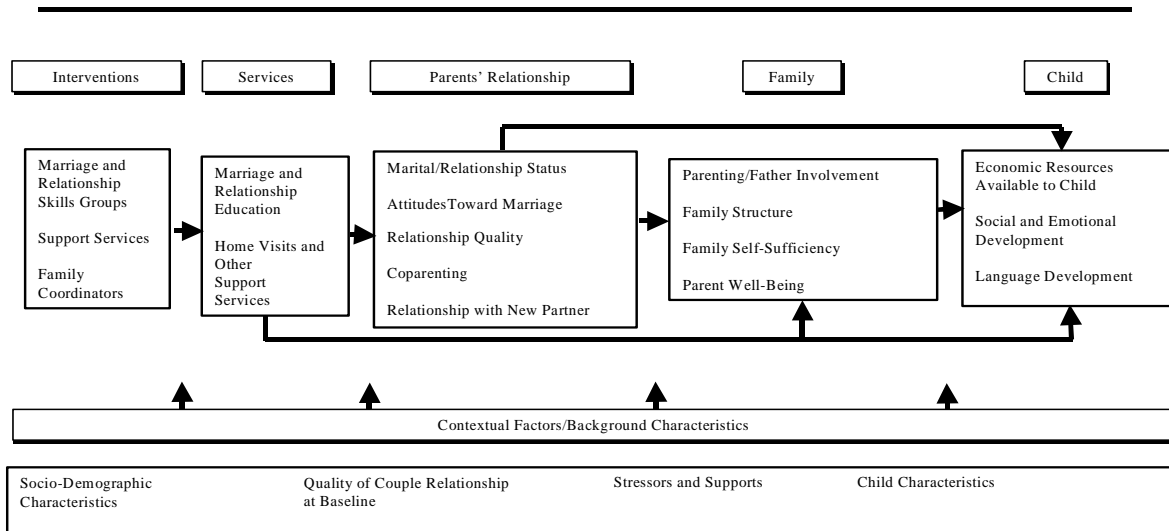
Refusal Conversion. A week after a refusal to be interviewed occurs, we will send a letter that emphasizes the importance of the study and addresses the concerns parents may have expressed when refusing to participate. Then, interviewers who are skilled at converting refusals will contact the parent. Parents who continue to refuse to complete the interview may be assigned to a field locator or child assessor for in-person follow-up.

Respondent Payments. Participants will receive a \$25 incentive for each completed interview. As an additional incentive, we will give the child a small toy at the end of the assessment. We also plan to include thank you letters with each respondent payment.

V. OUTCOME MEASURES FOR THE IMPACT ANALYSIS

The BSF program most directly aims to improve the romantic relationship and the likelihood of a healthy marriage for the unwed parents who participate. If the program succeeds in leading the parents to marry or improving their relationship, it may in turn affect many other aspects of their lives, as well as the lives of their children (Figure V.1). In addition, as described in Chapter I, the program offers support services explicitly designed to improve a variety of family and child outcomes. Hence, assessing the effectiveness of BSF requires gathering data on a diverse set of parent, family, and child outcomes. This chapter describes how we plan to measure those outcomes. We focus our discussion on our plans for collecting data on the first BSF follow-up survey, which will be conducted with both mothers and fathers 15 months after random assignment. Later project documents will describe our plans for gathering data at 36 months.

FIGURE V.1
BSF CONCEPTUAL FRAMEWORK



The structure of the chapter follows the structure of the BSF conceptual framework (Figure V.1). It begins with a brief discussion of our criteria for selecting measures. The subsequent sections of the chapter discuss the measurement of outcomes under one of the columns of the conceptual framework, each representing a broad set of outcomes relevant for the BSF impact analysis. We first describe our plans for measuring service receipt. We then present our plans for measuring parent relationship outcomes, in particular, relationship status (including marital status) and relationship quality. Finally, we discuss measurement of family outcomes, including parenting and father involvement, family structure, economic self-sufficiency, and parental well-being.

This chapter does not discuss our plans for measuring child development outcomes. Understanding BSF's potential effects on the social-emotional and language development of the children of participating couples will be a very important part of the BSF impact analysis. However, the first survey—which will be conducted when BSF focal children will range in age from 9 to 18 months—is too early a point to examine these outcomes. Therefore, such measures will not be included on the 15-month survey and thus are not described here.

A. CRITERIA FOR SELECTING MEASURES

In selecting outcome domains and their measures for inclusion on the BSF impact analysis, we used five broad criteria:

1. ***Relevance to BSF Goals.*** We have focused on outcomes that are either related to the direct objectives of BSF (such as marriage and child well-being) or are mediating outcomes (such as service receipt and parenting). In selecting outcomes to examine, we have chosen those that we expect are most likely to be affected by the BSF intervention.
2. ***Appropriateness for the BSF Population.*** We have chosen measures that are relevant for low-income, unwed parents. In addition, given the diverse racial and ethnic composition of the target population, we have considered the cultural sensitivity of the measures.

3. ***Degree to Which the Measures are Proven and Tested.*** For psychometric measures, we have looked for those that have been tested and found to have good psychometric properties, preferably in populations similar to the BSF population. For all measures, we have looked for those that have been used previously in large-scale surveys with similar populations.
4. ***Ability to Administer in a Short, Telephone Survey.*** The telephone surveys can only last about 45 minutes before respondent fatigue reduces the accuracy and frequency of responses. Hence, it must be possible to collect the measures relatively quickly and the questions must be easily understood over the telephone.
5. ***Ability to Administer to All Sample Members.*** As discussed in Chapter III, the benefits of random assignment are lost when an outcome is measured only for a subset of the program and control group members. Hence, whenever possible, we have selected questions that can be asked of all sample members.

For most outcomes, we were able to identify measures that were consistent with these five criteria. In some cases, however, proven and tested measures of a key outcome were not available. As discussed later in the chapter, this was particularly true in the domain of relationship quality—measures that have, in general, been most widely used with married and middle class couples. Because these measures have not been widely used and tested in populations similar to the BSF target population, we plan to conduct cognitive tests of the measures with a small set of low-income unwed parents. These tests will help us determine whether the questions are understood by the target population and whether they measure the intended concept.

Similarly, in the relationship quality domain, it was often not possible to identify measures that were relevant for all sample members because these measures generally focus on the quality of the romantic relationship, a concept that cannot be measured if the couple is no longer together. However, given the importance of measuring relationship quality for the BSF impact analysis, we will include a set of these measures that will be asked only of couples who are still together—this is discussed more fully later in the chapter.

B. MEASURES OF SERVICE RECEIPT

As part of the first follow-up survey, we will ask both program and control group members about the services they received since random assignment. Service receipt data that have been collected uniformly for program and control group members will enable us to clarify exactly what is being tested by the BSF intervention. The services received by the control group represent the “counterfactual”—in other words, the services that couples would have received in the absence of BSF. Therefore, the difference in service receipt between the two research groups represents the additional services couples received because of participating in BSF.

Measuring the difference in service receipt between the program and control groups will help us interpret BSF’s effects on other outcomes. If we find that BSF has only limited effects in key outcome areas, we need to understand whether this lack of impacts is due to the fact that there was little difference between the services received by program and control group couples or whether the additional services received by program group couples were ineffective.

Marriage and relationship skills education is the core component of BSF; we will therefore focus particularly on respondents’ participation in services of this type. We plan to ask about whether they received marriage and relationship skills education from any program, including BSF. We also plan to ask how often they attended these programs, how many hours they participated, whether the services were offered in a group setting, and whether they usually attended these sessions with their BSF partner.

We will also ask respondents about their receipt of other support services since random assignment. We will focus on a list of services that couples are likely to either receive directly from the BSF program or be referred to by the program. We will ask about home visits, employment-related services, education programs, parenting classes, anger management and domestic violence services, and services to address mental health and substance abuse problems.

For home visits, we will ask not only whether respondents received this service, but also how often they received it. It is important to document the amount of home visiting received, because these visits represent a particularly intensive service and are an important part of the BSF intervention in some sites. For other services, we will ask only whether or not respondents received them during the follow-up period and not about the amount of these services they received.

C. MEASURES OF THE PARENTS' RELATIONSHIP

The central aim of BSF is to help unwed parents build stronger relationships and fulfill their aspirations for a healthy marriage if they so choose. Given this goal of the program, the BSF impact analysis will explore thoroughly the program's potential effects on the couple's relationship status and quality. We will examine five aspects of the parent's relationship on the 15-month survey: (1) their marital and relationship status; (2) their general attitudes toward marriage; (3) their relationship quality; (4) their co-parenting relationship; and (5) their relationships with new romantic partners.

1. Marital and Relationship Status

Marital status and marital history are among the most important outcomes for the BSF evaluation to measure carefully. But even for couples who have not married during the evaluation follow-up, an increase in the incidence of sustained romantic involvement may signal longer-term impacts on marriage beyond the follow-up period. Thus, an impact on this outcome may be an important first step toward BSF's longer-term goals of improving the economic, social, and emotional well-being of participants and their children. Therefore, measures of relationship status—including romantic involvement and plans for marriage—are also very important measures for the impact analysis.

We will examine several aspects of respondents' relationship status with their BSF partner.³ We plan to ask whether the respondent is currently or has ever been married to the BSF partner and when this marriage started and ended. For respondents who are not married, we plan to ask whether they are currently romantically involved with the BSF partner. If their romantic relationship has ended, we will ask when and why the relationship ended. We will ask all respondents whether they live with the BSF partner (and if so, how regularly).

We will also examine whether couples appear to have moved closer to marriage, even if they have not yet married. Impacts on these outcomes would also suggest that BSF may have future effects on marriage. To determine whether BSF has affected participants' likelihood of marriage to the BSF partner, we will ask respondents: (1) their perceptions of the likelihood that they will marry their BSF partner some day, (2) whether they are engaged to their BSF partner, and (3) whether they have set a wedding date.

2. Attitudes toward Marriage

Attitudes toward marriage have been shown to be highly predictive of whether low-income, unwed parents marry (Carlson et al. 2004). Thus, one way in which the BSF intervention may encourage healthy marriage is by changing these attitudes. BSF may affect attitudes in two main ways. First, BSF group facilitators will talk about the advantages of marriage for couples and their children. Second, BSF may expose participants to married couples who can act as role models or positive examples. Some programs may have married couples come into class to talk about their relationships. In addition, group facilitators will often be married themselves and, in some cases, co-facilitators may even be a married couple. Some programs may include married couples in the groups.

³We use the phrase "BSF partner" to refer to the partner with whom the sample member applied to BSF and with whom they were randomly assigned, even if their assignment was to the control group.

To determine whether the program has had an effect on couples' attitudes toward marriage, we plan to ask survey respondents the extent to which they agree with the following five statements:

1. It is better for a couple to get married than to just live together.
2. A single parent can bring up a child just as well as a married couple.
3. It is better for children if their parents are married.
4. There are very few people who have good and happy marriages.
5. When a couple is committed to each other, it makes no difference whether they are married or living together.

These measures have been used in other large surveys of low-income families, including *Fragile Families* and the Florida Family Survey.

3. Relationship Quality

Assessing the quality of the relationship of participating couples is of central importance to the BSF impact analysis. Not only is the health or quality of the parents' relationship important for the well-being of the parents themselves, it also affects their children. Research has shown that the quality of the parent's relationship has important direct effects on children (Cummings and Davies 1994; Emery 1982; Grych and Fincham 2001). In addition, relationship quality is highly correlated with the likelihood that the couple will stay together, and research indicates that children do better on a wide range of outcomes when brought up by both biological parents (McLanahan and Sandefur 1994). Therefore, the quality of the parental relationship can also have important indirect effects on child well-being through its effect on relationship status.

Participation in BSF may affect relationship quality in three ways. First, skills to improve the quality of relationships are taught in the group sessions and reinforced by the family coordinator. Second, some aspects of relationship quality, such as commitment, may be affected by the discussions about the importance to children of a strong parental relationship. These

discussions occur in the group sessions and in meetings with the family coordinator. Third, by providing support services and emotional support, BSF may alleviate some life stressors that reduce relationship quality.

While there is no consensus on exactly what makes a relationship healthy or of high quality, there is consensus that any measure of relationship quality should cover multiple domains (Carrano et al. 2003). We propose to measure seven broad domains of relationship quality: happiness, conflict management, domestic violence, communication and friendship, supportiveness and intimacy, commitment and trust, and fidelity.

a. Relationship Quality Measures

Ideally, we would like to measure relationship quality using well-validated existing scales. Such scales do exist for some relationship quality domains (such as domestic violence). For other domains (such as conflict management), the scales that do exist were not designed for and are too long to be administered in a telephone survey. For yet other domains (such as supportiveness, fidelity, friendship), well-validated scales do not exist. As much as possible, we will use relationship quality questions that have been shown to have strong psychometric properties and have been used on large telephone surveys, preferably with low-income populations. Where such questions did not exist, we have adapted questions to be applicable to unmarried couples, easily administered over the telephone, and appropriate for a population with relatively low levels of education. After we have collected the data, we will use factor analysis to see which relationship quality items are highly correlated and can be used together as a scale.

Happiness. The most widely measured relationship quality domain is a self-assessment of the degree of happiness a person receives from the romantic relationship. Relationship happiness has been found to be highly predictive of later divorce or separation among married couples (Karney and Bradbury 1995). Evaluations of relationship programs have shown that such

programs can affect relationship happiness or satisfaction, at least in the short term (Carroll and Doherty 2003; Markman et al. 1988; Wampler 1990).

We propose to measure relationship happiness using an adaptation of a question that is included in several relationship quality scales. It asks respondents to rate, all things considered, the happiness in their relationship on a 10-point scale from not at all happy (0) to perfectly happy (10). Similar questions about happiness with a relationship or marriage are included in the Locke-Wallace Marital Adjustment Test (Locke and Wallace 1959), the Dyadic Adjustment Scale (Spanier 1976), and the Quality of Marriage Index (Norton 1983).

We chose to follow the Quality of Marriage Index and use a 10-point response scale, rather than the 7-point scale used by the Marital Adjustment Test and Dyadic Adjustment Scale, because we viewed it as simpler to understand over the telephone. In cognitive tests of relationships in low-income couples, Guzman et al. (2005) found that a 10-point scale worked well in low-income populations. We do not propose including the entire Locke-Wallace Test or Dyadic Adjustment Scale because they have been criticized as including questions that *predict* relationship happiness as well as measures of the happiness itself (Norton 1983).

Relationship happiness and relationship satisfaction, while highly correlated, have been shown to be slightly different concepts. Campbell et al. (1976) found that people assign slightly different meanings to happiness and satisfaction. For this reason, some scales such as the Quality of Marriage Index, ask about both satisfaction and happiness. However, for the following three reasons, we will ask about relationship happiness only on BSF follow-up surveys. First, prior surveys covering relationship quality have more frequently asked about happiness than satisfaction. Second, there may be more variation in responses from a happiness question than a satisfaction question—people who are happy with a relationship are generally also satisfied with it, but the reverse is less often true. Third, we wanted to choose only one of

the two measures (happiness and satisfaction) because they are highly correlated and there is a need to keep the survey short.

Conflict Management. How unwed parents manage conflict is an outcome of central importance to the BSF evaluation. Improving conflict-management skills is a required area of all BSF curricula and a key focus of the intervention. Poorly managed conflict is highly predictive of relationship dissolution (Stanley 2003), is harmful to children (Cummings et al. 1991), and is associated with poorer physical and mental health among the individuals involved (Fincham 2003).

While many relationship quality scales (including the Marital Adjustment Test) ask about the amount and areas of conflict, we chose not to. This is because studies have shown it is *how* the conflict is managed, and not the amount or subject of the conflict, that affects relationship happiness and stability (Gottman 1993; Markman et al. 1993).

We plan to include 17 items on the 15-month follow-up survey to measure conflict management. As illustrated in Table V.1, these represent 11 different aspects of conflict management. These items will be used together to construct a single conflict management scale. They were drawn from three sources: (1) Gottman's Sound Relationship House scale (Gottman 2004), (2) the Interpersonal Relationship Scale (Guerney 1977), and (3) the Stanley-Markman Relationship Dynamics Scale (Stanley and Markman 1997). The length of each of these scales prevented us from using them in their entirety. Instead, we are using abbreviated versions of each, focusing on the questions that would be easiest for low-income populations to understand and answer and those representing aspects of conflict management that are most likely to be affected by the BSF intervention. In addition, since each of these scales uses a different set of response categories, we have modified the response categories from two—the Gottman and

TABLE V.1

ASPECTS OF CONFLICT MANAGEMENT COVERED BY
THE BSF 15-MONTH FOLLOW-UP SURVEY

Aspect of Conflict Management	Question Item: Does this happen often, sometimes, rarely or never?	Source
Not starting a discussion in a way that is likely to lead to a conflict	FATHER/MOTHER blames me for things that go wrong	SRH
Not criticizing and showing contempt	Little arguments turn into ugly fights with accusations, criticisms, name calling, or bringing up past hurts FATHER/MOTHER puts down my opinions, feelings, or desires	SMRDS
Showing respect and appreciation	I feel appreciated by FATHER/MOTHER I feel respected even when we disagree	SRH
Understanding the other partner's position	When I have problems, FATHER/MOTHER really understands what I am going through We are pretty good listeners even when we have different positions on things	IRS, SRH
Staying positive during the conflict	When we argue, I feel personally attacked by FATHER/MOTHER FATHER/MOTHER seems to view my words or actions more negatively than I mean them to be	SRH, SMRDS
Not withdrawing in a conflict	When we argue, one of us withdraws and refuses to talk about it	SMRDS
Not escalating the conflict	When we discuss something, FATHER/MOTHER acts as if I am totally wrong	SRH
Compromising	We are good at solving our differences	SRH
Not becoming so upset during conflicts that it precludes clear thinking	When we argue, one of us is going to say something we will regret When we argue, I get very upset	SRH
Taking breaks when needed	During arguments, we are good at taking breaks when we need them	SRH
"Repairing" damage done during a conflict	Even when arguing, we can keep a sense of humor FATHER/MOTHER is good at calming me when I get upset	SRH

SRH: Sound Relationship House

IRS: Interpersonal Relationship Scale

SMRDS: Stanley-Markman Relationship Dynamics Scale

Guernsey scales—to be consistent with the third, the Stanley and Markman scale. In particular, the number of response categories for the Gottman questions was increased from two (“yes” or “no”) to three (“often,” “sometimes,” or “rarely or never”), while the number of response categories for the Guernsey scale was reduced from five to three. For all the scales, we have also adapted some of the wording to make the questions more easily understood by people with lower levels of education.

Domestic Violence. The absence of domestic violence is a key characteristic of a high-quality, healthy relationship. Domestic violence is associated with poor mental and physical outcomes for the victim, a higher likelihood of the dissolution of the relationship, and poor outcomes for children, especially if they are exposed to the violence (Lawrence 2002).

We plan to use the physical assault subscale from the revised Conflict Tactics Scale (CTS2) as a measure of domestic violence. The CTS2 is the most widely used tool for measuring the extent and nature of violence in romantic relationships (Strauss and Douglas 2004). It has been well-validated and shown to have good internal consistency (Strauss et al. 1996). The CTS2 physical assault subscale includes 12 items and documents the prevalence of physical violence in a relationship by asking about the occurrence of a series of specific violent acts during the past year (for example, hitting, slapping, pulling hair, kicking, or choking).

Critics of the CTS2 physical assault subscale have argued that examining this subscale alone can exaggerate “gender symmetry” in domestic violence, because it does not take into account that men are more likely to cause injury to women than women are to men. Hence, we will also include a question adapted from the physical injury subscale of the CTS2 to determine whether serious injuries requiring medical attention were inflicted by a romantic partner during the past year. Critics of using the physical assault subscale alone also argue that any examination of domestic violence should include a measure of sexual coercion. Hence, we are also including a

question about sexual coercion on the BSF follow-up survey adapted from the CTS2 sexual coercion subscale.

We have expanded the standard CTS2 questions so that they cover violence on the part of all intimate partners and not just one particular partner, as CTS2 questions typically do. For each of the 14 domestic violence questions that will be included on the BSF survey, we will first ask whether they experienced this event at the hands of any intimate partner in the past year. If the answer is yes, we will ask respondents whether it was the BSF partner, their current partner (if they have a new romantic partner), or another intimate partner. This strategy will allow us to examine BSF's potential effects on a number of domestic violence measures including (1) whether respondents have experienced violence from their BSF partners during the past year, (2) whether they have experienced violence from any partner during this period, and (3) whether they are currently involved in a romantic relationship involving violence.

Communication, Friendship, and Time Spent Together. Some researchers argue that the importance of conflict management has been exaggerated and more attention should be given to more positive aspects of relationships, such as the quality of the couple's communication and friendship, and the amount of time the couple spends alone together (Fincham 2003; Hawkins et al. 2006). The quality of marital friendship within the first few months of marriage has been found to predict a stable rather than declining marital satisfaction over the transition to parenthood (Shapiro et al. 2000).

We include two questions to collect information about communication and friendship. One question asks about whether the respondent enjoys doing ordinary, day-to-day things with his or her partner and was taken from the *Marriage in Oklahoma: 2001 Baseline Statewide Survey on Marriage and Divorce*. The other question asks whether they talk about things that happen during the day; it was developed by Child Trends (Guzman et al. 2005). In addition, we have

adapted a question from the National Survey of Families and Households to ask about time the couple spends alone together.

Supportiveness and Intimacy. The Fragile Families study found supportiveness to be highly predictive of whether unmarried parents stayed together and married (Carlson et al. 2001). Research has shown that supportiveness is correlated with good marital outcomes (Bradbury et al. 2000; Huston and Chorost 1994). We will include the supportiveness question that had the highest predictive power from the Fragile Families survey. This question asked whether the respondent's partner "encourages or helps you to do things that are important to you."

All BSF curricula focus on building intimacy in the relationship. They teach the importance of sharing information about your life with your partner, creating rituals to promote intimacy, and the importance of physical intimacy. We will ask five questions about intimacy that cover respect, knowledge of each other's lives, understanding, showing love and affection, and satisfaction with the couple's sexual relationship. These questions were taken from the Fragile Families survey, the Sound Relationship House questionnaire, and Guzman et al. (2005).

Commitment and Trust. Commitment implies a willingness to make sacrifices and change behavior for the long-term good of the relationship and helps couples weather the inevitable difficult times in their relationships. Studies show that commitment is associated with marital and relationship quality and stability (Murstein and MacDonald 1983; Stanley and Markman 1992; and Amato 2003.) All BSF curricula discuss the importance of commitment and marriage.

We will measure commitment using a three-item scale developed by Stanley and Markman (1992) and used in the Oklahoma survey. Two of these questions were also used in the Fragile Families surveys. The interviewer will ask respondents about the extent to which they agree with the following three statements:

1. I may not want to be with PARTNER a few years from now.⁴
2. My relationship with PARTNER is more important to me than almost anything else in my life.
3. I want this relationship to stay strong no matter what rough times we may have.

The amount of trust a person has in his or her partner can be viewed as a mirror of the perceived commitment of the partner. Building trust is discussed by all the BSF curricula. To measure trust, we use three items from the eight-item Dyadic Trust Scale (Larzelere and Huston 1980). These include: (1) “PARTNER is honest and truthful with me;” (2) I can trust PARTNER completely; and (3) PARTNER can be counted on to help me.”

Fidelity. An issue closely related to commitment and trust in a relationship is fidelity. Recent studies of unmarried parents have found that one of the main obstacles to marriage, especially for women, is distrusting their partner’s ability to remain faithful (Edin 1999; Smock and Manning 2004). Having concerns about infidelity is a major predictor of whether the couple will be together a year after the baby is born (Carlson et al. 2001). Infidelity is the most commonly reported reason for relationship breakup. Because of the importance of fidelity to the success of a relationship, all BSF curricula address in-depth the issues of fidelity and trust.

To examine BSF’s potential effects in this area, we will ask survey respondents about both their own fidelity and the perceived fidelity of their partner. In particular, we will ask about incidents of infidelity that occurred since random assignment, as well as perceptions of the likelihood of their own and their partner’s infidelity in the future.

⁴The interviewer will read this statement filling in the respondent’s BSF partner’s first name for “PARTNER.” This name fill will happen automatically in the CATI program.

b. Which Respondents to Ask the Relationship Quality Questions

Not all respondents will be asked all of the relationship quality questions; the questions asked will depend on the respondent's relationship with his or her partner. Some questions are inappropriate for couples who have split up—for example, the extent to which they show each other love and affection. Other questions are inappropriate to ask of all respondents because they may be interpreted differently depending on the status of the relationship. For example, one question on the survey asks the extent to which the respondent agrees with the following statement: “I want this relationship to stay strong no matter what rough times we may have.” Respondents in a romantic relationship will interpret this question as asking whether they want their romantic relationship to continue. Respondents who have split up may interpret this question as asking whether they want their co-parenting relationship to continue.

We considered asking couples who have split up about the general quality of their relationship when they were together. We chose not to, however, because we believe it would be difficult for the survey respondents to accurately recall the quality of the relationship when the couple was intact. In addition, their responses will be highly affected by both the fact they split up and their reasons for doing so. One exception is whether each member of the couple was faithful, which is less likely to be affected by recall error.

Respondents can be divided into three mutually exclusive groups depending on their relationship. Each group will be asked a different set of the relationship quality questions.

1. *Respondents who are married or romantically involved* will be asked all of the relationship quality questions discussed in this section.
2. *Respondents who are not romantically involved (nor married) but see each other at least three times a month* will not be asked about relationship happiness, communication and friendship, sexual and emotional intimacy, and commitment. However, as these couples see each other frequently enough to experience conflict, we will ask these couples about conflict management. We will also ask these respondents about domestic violence; the extent to which they trust the BSF partner;

the extent to which their BSF partners understand, support, and respect them; and about past fidelity in the relationship with the BSF partner.

3. *All other respondents* will not be asked about conflict management, relationship happiness, communication and friendship, sexual and emotional intimacy, and commitment. We will ask all respondents about domestic violence; the extent to which they trust the BSF partner; the extent to which their BSF partners understand, support, and respect them; and about past fidelity in the relationship with the BSF partner.

4. Co-Parenting

Co-parenting—another important area to examine as part of the BSF impact analysis because it is closely related to relationship quality—refers to how parents interact with each other in their shared role as parents. This domain includes how the parents negotiate their roles and responsibilities in child rearing and how they make joint decisions about raising their child. Effective co-parenting requires parents to have the skills to communicate with each other about the goals they have for their children and the values that underlie those goals. Ideally, it requires parents to convey respect for each other’s strengths and weaknesses as parents.

BSF programs may lead to improved co-parenting by increasing the likelihood that the couple will be married or in a committed relationship, by improving the communication skills and relationship quality of all couples (including those who are not married or cohabiting), and by emphasizing that parenting is a shared task and that their interaction with their children is not something that parents do in isolation from one another. It may also improve co-parenting among couples who break up after participating in BSF. This potential effect could occur if these split-up couples are able to apply to their continuing co-parenting relationship the communication skills they learned from the program.

To measure co-parenting on the BSF follow-up survey, we will use a shortened version of the Parenting Alliance Measure (PAM) developed by Dr. Richard Abidin (Abidin and Brunner 1995). The PAM is designed to measure the degree to which parents believe that they have a

sound working relationship with each other concerning parenting issues. We plan to use 10 items from the full 20-item PAM. We identified these 10 items in consultation with Dr. Abidin; they include whether the respondent agrees with statements such as: “I believe PARTNER is a good parent,” “PARTNER and I communicate well about CHILD,” and “PARTNER and I are a good team.”

We supplemented the PAM measures with five items developed by Child Trends for use in ACF’s Healthy Marriage Initiative studies. These items focus on the concept of commitment to the other parent. They include items such as: “CHILD needs PARTNER just as much as he/she needs me,” and “No matter what might happen between PARTNER and me, when I think of CHILD’s future, it includes PARTNER.” We will ask the co-parenting questions of all respondents, regardless of their current relationship status.

5. Relationships with New Partners

As part of the impact analysis, we will also examine the degree to which BSF affects the likelihood that participants form relationships with new partners. Understanding the nature of new romantic relationships is important because of its implications for child well-being. Research suggests that living with both biological parents is generally advantageous for children but that living with a parent and his or her new partner is not (McLanahan and Sandefur 1994). In fact, exposure to a parent’s new romantic partner can put the child at risk for adverse outcomes (Radhakrishna et al. 2001).

We plan to include several questions on the follow-up surveys to examine BSF’s possible effects on the likelihood of having subsequent partners. In particular, we will ask respondents whether they are currently in a romantic relationship with a new partner and, if so, whether they are currently living with or married to that partner. We will also ask respondents about the number of sexual partners they have had since random assignment. We will not ask about the

quality of new romantic relationships on the 15-month survey. However, we plan to ask about the quality of any new romantic relationships as part of the 36-month follow-up survey.

D. MEASURES OF FAMILY OUTCOMES

One of the ultimate goals of BSF is to improve the well-being of the children of the couples who participate. An important pathway by which BSF may do so is through its direct or indirect effects on a wide variety of family outcomes, including parenting behaviors and father involvement, the structure of the family, the family's economic self-sufficiency and economic well-being, and parental well-being. In this section, we describe our plans for measuring these family outcomes on the 15-month follow-up survey.

1. Parenting and Father Involvement

Parenting and father involvement are important—and closely related—domains to examine as part of the BSF impact analysis. The way in which parents interact with their children, the amount of time they spend with them, and the specific activities they engage them in are key factors in the cognitive, social, and emotional development of young children.

In much of the research on the importance of parenting to child development, the focus has been on mother-child interactions. However, in recent years, research has increasingly focused on the role of fathers, especially unwed fathers, in shaping how children develop. Research in this area suggests that children benefit from both the quantity and quality of time they spend with their fathers, as well as material support that fathers provide (Lamb 1997; Tamis-LeMonda et al. 2004). For this reason, the parenting measures we will examine as part of the BSF impact analysis will focus on the parenting role of both mothers and fathers. In addition, for a few parenting-related measures—in particular, those associated with day-to-day care giving and with material support—we will focus only on the role of fathers, so that we can examine more

completely whether BSF affected the degree to which participating fathers are involved in the lives of their children.

Parenting and father involvement are broad and complex domains. Therefore, a wide range of parenting-related outcomes exist that could potentially be examined as part of the BSF impact analysis. Because of the very large number of potential items to include in this area, we considered three criteria when choosing the parenting and father-involvement measures to include on the 15-month follow-up survey: Is the measure relevant for children who are 9 to 18 months old (the age of BSF focal children at the time of the first follow-up)? Can the measure realistically be affected by the intervention? Can the measure be collected through parent reports as part of telephone interviews?

Based on these criteria, we chose to include on the 15-month survey questions covering four basic areas: (1) quality and quantity of time spent with the BSF child,⁵ (2) the use of harsh discipline, (3) the degree of parental aggravation and stress, and (4) the amount of material support provided. A broader set of parenting measures may be collected at the 36-month follow-up.

a. Quantity and Quality of Time Spent with the BSF Child

An important aspect of child well-being is the quantity and quality of time children spend with their parents. In order to examine BSF's potential effects on these outcomes, we have included several questions drawn from the short form of the Home Observation of the Measurement of the Environment (HOME) inventory (Caldwell and Bradley 2001). These questions cover the amount of time respondents have spent with the child in the past month, as

⁵We use the term "BSF child" to refer to the child who was born around the time the couple applied for BSF and thus made them eligible for BSF. We refer to this child as the "BSF child" even if the couple was assigned to the control group.

well as the specific activities they have engaged in while with the child. The questions concerning specific activities cover two basic domains: (1) cognitive and social play, such as singing songs, playing with toys, playing “peek-a-boo” or “gotcha,” looking at books together, and telling stories, and (2) care giving, including feeding, dressing, and changing diapers. Since research has shown that most mothers of young children report conducting these care giving activities every day, we will ask this latter set of parent-child activity questions only of fathers.

b. Parental Stress

High levels of parental stress and aggravation can have adverse effects on child outcomes. Long-term elevated levels of parental stress are associated with poor cognitive and socio-emotional development in young children (McGroder 2000). BSF may reduce parental stress and aggravation by encouraging parents to support each other in their parenting roles. In addition, if BSF leads to a general improvement in the quality of participants’ romantic relationships, this may lower the level of stress and aggravation in all aspects of their lives, including their parenting role.

To examine BSF’s potential effects on parental stress and aggravation, we have included on the 15-month survey the Aggravation in Parenting Scale used as part of the National Survey of America’s Families (NSAF), a large survey of low-income families. This scale has been shown to have good psychometric properties, such as internal reliability and construct validity (Ehrle and Moore 1999).

c. Harsh Discipline

The use of harsh discipline is an aspect of parenting that can have important effects on child well-being. By emphasizing the importance of conflict management and by teaching the necessary skills, BSF may reduce the use of harsh discipline techniques among participants. To

examine BSF's potential effects in this area, we will use a survey item on the use of spanking taken from the Parent-Child Conflict Tactics Scales (Straus et al. 1998). This measure has been used in several large surveys, including the Early Head Start follow-up surveys. We will ask all respondents about their own use of spanking on the focal child in the past month, the BSF partner's use of spanking during this period, and, if they have a new partner, their current partner's use of spanking.

d. Material Support Provided to the BSF Child

Another important set of parenting and father involvement outcomes to examine as part of the BSF impact analysis is the level of material support that BSF parents—and particularly BSF fathers—provide their children. Children born to unwed parents are at high risk of receiving little financial support from their parents, particularly their fathers (McLanahan and Sandefur 1994; Rangarajan and Gleason 1998). BSF may increase the financial support provided to the children of participating couples—primarily by increasing the likelihood that the couples marry or at least remain together, but also by increasing the likelihood that non-resident parents provide financial support for their children.

Because of the importance to child well-being of parental material and financial support, we have included a number of questions on these factors on the follow-up surveys. In many cases, these material support measures are relevant only for non-resident parents (usually fathers), as resident parents generally provide financial support for their children. However, we will include one measure of material support that can be asked of both resident and non-resident fathers. These measures are described in more detail below.

We will ask questions concerning material support of both fathers and mothers. However, by focusing many of the questions on the contributions of non-resident parents—who will typically be fathers—these questions will most often focus on the material support provided by

fathers. We will ask resident parents about the support provided to the child by non-resident parents. We will also ask non-resident parents directly about the support they provide. This data collection strategy will allow us to examine the level of material support provided by BSF fathers from both the fathers' and mothers' perspective.⁶

As part of collecting information on material support, we will collect the key outcomes associated with child support enforcement, beginning with paternity establishment. We will ask two questions concerning paternity: (1) whether it has been established and (2) whether it was established voluntarily or by court order. Establishing paternity is an important step in ensuring that unwed fathers provide financial support for their children. If BSF augments the extent to which participating fathers are committed to their children, it may increase the rate of paternity establishment. In addition, if BSF increases the likelihood that paternity is established through a voluntary process, this may improve relationships between parents and between fathers and their children.

We will also ask several questions concerning formal child support payments, as well as informal forms of financial support provided by non-resident parents. In particular, we will ask whether a child support order is in place, whether child support is being paid, and the actual amount owed and paid. We will ask about informal cash payments provided by the non-resident parent and the amount of any such payments made in the past month. In addition, we will ask whether the non-resident parent has bought necessities for the BSF child, such as clothes, diapers, or medicine. Questions concerning the material support provided by non-resident

⁶The 15-month survey will not gather information concerning the material support provided to other biological children who do not live in the household. Although the effect that BSF may have on the material support participants provide to their other children is of interest for the impact analysis, this is a lower priority than many other measures. Therefore, we will wait until the 36-month survey to examine this issue.

parents will be borrowed and adapted from the Fragile Families study, as well as the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B).

Finally, we will include on the 15-month survey a general question concerning the overall financial contribution the father makes to the cost of raising the child. This question will be asked about both resident and non-resident fathers. Therefore, it has the advantage of being defined for all fathers in the research sample, which will allow us to compare all program-group fathers to all control-group fathers, preserving the advantages of random assignment. It will also allow us to examine whether the income of resident fathers is indeed available to the BSF child and whether the intervention has any effect on this availability.

We have not found good examples of questions of this type from other surveys. Therefore, we have drafted a new question covering this topic for use on the BSF 15-month survey. In particular, we will ask:

Parents deal with meeting the expenses of raising a child in different ways. When answering the next questions, I'd like you to think about all the expenses there are for raising BSF CHILD, such as his/her food, clothing, medical expenses, diapers, and any other costs associated with raising him/her. How much of the cost of raising BSF CHILD does FATHER cover? Would you say it's all or almost all, more than half, about half, less than half, or little or none?

This question will be asked of mothers about fathers. Since this is a new survey question, we plan to conduct cognitive testing of it on a small set of participants from the BSF pilot and may adapt it somewhat based on the results of these tests.

2. Family Structure

We will examine three aspects of family structure as part of the BSF impact analysis: (1) the BSF focal child's living arrangements; (2) the subsequent fertility of sample members; and (3) the household structure of sample members. Our plans for collecting data in each of these areas is described below.

a. BSF Child's Living Arrangements

Living with both biological parents has been shown to have positive effects on child well-being (McLanahan and Sandefur 1994). For this reason, the BSF program specifically aims to increase the likelihood that the children of participants live with both their biological parents. To examine the program's potential effects in this area, we will ask several questions on follow-up surveys concerning the BSF child's living arrangements.

We will first ask whether the BSF child lives with the respondent. If the child does not live with the respondent, we will ask with whom the child lives (for example, the other parent, another relative, a foster parent, or an adoptive parent). We will also ask respondents to report the number of months they have lived with the BSF child since the child was born. In addition, we will ask respondents to report the amount of time they have lived with both the BSF child and their BSF partner. This latter measure will allow us to examine BSF's impact on the amount of time BSF children have lived with *both* of their biological parents.

b. Fertility

Another issue to consider as part of the impact analysis is the effect the program may have on subsequent childbearing. Multiple partner fertility has been shown to have negative consequences for child well-being (McLanahan and Sandefur 1994; Radhakrishna et al. 2001; Carlson and Furstenburg 2006; Harknett and Knab 2005). It is hoped that by encouraging fidelity and improving the likelihood that the BSF couples remain together, the program will reduce multiple partner fertility, as well as the number of children born to participants outside of marriage.

To determine whether BSF has had an impact on fertility, we will ask on follow-up surveys about children the respondent has had since random assignment, including whether the BSF

partner or someone else is the other parent of these children. We will also ask whether the respondent is currently expecting a child and whether the BSF partner is the parent of that child.

c. Household Structure

As part of BSF follow-up surveys, we will gather some basic information on respondents' household structure. This information will allow us to have a better understanding of the economic status of the respondent's household and how BSF may have affected this status. In particular, we will gather information on:

- *The number of minor children in the household for whom the respondent is responsible*, which is needed for determining whether the family (and the BSF child) is living in poverty.
- *The number of adults living in the household that are related to the BSF focal child and how many of these adults are working*, which will allow us to examine whether there are other adults in the household (besides the parents) who can provide financial support for the BSF child. This latter outcome will allow us to create measures of economic hardship from the BSF child's perspective, such as "living in poverty with no employed related adults in the household."

We will not ask more detailed information about the respondent's household structure on the 15-month survey, such as how various household members are related to the respondent or to the BSF child. However, if we decide it is important to look more carefully at BSF's potential effects on household structure, we may gather more detailed information in this area during the 36-month survey.

3. Family Self-Sufficiency and Economic Well-being

BSF's primary aim is to improve relationship quality and stability and, by doing so, ultimately improve child well-being. Prior research indicates that family income and poverty are important determinants of child well-being (Brooks-Gunn and Duncan 1997; Mayer 1997). Since two-parent families generally have higher incomes than single-parent families, increases in

family income may be an important avenue through which BSF improves child outcomes. For this reason, it is important to include measures of economic well-being on BSF follow-up surveys.

a. Strategy for Collecting Income Data

Income can be a difficult outcome to measure for low-income families, who often piece together income from multiple sources such as earnings from formal and informal employment, welfare benefits, money from friends and relatives, and so on. Moreover, these families often receive income from these various sources intermittently, making it a challenge to get an accurate measure of total income over an extended period of time (such as a year). To improve the accuracy and usefulness of our income data, we will follow three basic strategies.

First, we will ask respondents about all likely income sources separately. Research has shown that this strategy leads to substantially less income underreporting than if respondents are asked to report their total income in a single question (Citro and Michael 1995). While this strategy has the downside of potentially increasing the amount of survey time devoted to gathering income information, our experience with collecting income data from low-income populations suggests that a single total income question can also take considerable time to administer, as respondents spend time adding up (not always accurately) their income from the various sources.

Second, we plan to ask respondents about income received from these sources during the past month rather than the past year. This strategy avoids the inaccuracies introduced by asking respondents to recall intermittent patterns of income receipt over many months. However, we recognize that it has the downside of focusing on a very short time period, which reduces the researcher's ability to distinguish short-term economic setbacks or income gaps from longer-term ones that have more significance and relevance to overall family well-being.

Third, we will focus on family income, as opposed to individual or household income. The family is the economic/social unit that is most likely to pool and share financial resources fully and is therefore most relevant when examining economic well-being. However, even with family income, there is still the question of who to include within the definition of “family.” In survey data collection, family income typically includes the income of respondents, their spouse, and their minor children who live with them. However, there is some debate concerning the appropriateness of including the income of cohabiting partners in a family income measure, in part because it is unclear how fully cohabiting partners pool their financial resources. To address this issue, we plan to ask both the mother and the father separately whether they pool their income or share household expenses (as described below) with a cohabiting partner. We will include the income of the cohabiting partner in total family income if the respondent indicates that they pool income or share expenses. We plan to calculate family income for the mother, father, and BSF focal child separately. These income amounts could differ if the mother and father are not cohabiting or if the mother and father do not pool income or share expenses.

b. Employment and Earnings

One measure of BSF’s success in promoting the economic well-being of participating families is its success in increasing the employment and earnings levels of program participants. BSF might affect employment and earnings in several ways. First, being part of a stable, committed relationship may change people’s labor market behavior. Therefore, if BSF succeeds in increasing the likelihood that couples form and maintain committed relationships and marriages, the program may affect employment outcomes. Second, the family support services to which BSF participants may be referred may include employment and training services that aim to improve labor market outcomes directly. In addition, other support services to which BSF participants may be referred include services that aim to address potential barriers to

employment, such as difficulties accessing child care or transportation or problems with mental health or substance abuse. Third, some of the communication skills and anger management techniques that will be taught as part of the BSF curriculum may improve relationships in the workplace, potentially improving the labor market outcomes of program participants.

To examine BSF's potential effects on labor market outcomes, we will gather the following information:

- The number of months worked in the year prior to the survey
- The number of hours typically worked per week during the past month
- Total earnings from all jobs in the past month or in the month last worked

This information serves two purposes. First, it will allow us to examine BSF's effects on employment for the parents who participate in the program. Second, it can be used in conjunction with other income information to calculate a total income figure and estimate the impact of BSF on family income and on the proportion of families living in poverty.

c. Public Assistance Receipt

BSF aims to increase the self-sufficiency of participating couples. It is hoped that by increasing the likelihood that couples remain together and enter into a healthy marriage, the program will reduce the likelihood that they will need or use TANF, food stamps, and other public assistance programs. In general, two-parent families are less likely than those headed by single parents to be eligible for welfare benefits or to require such assistance. Therefore, if BSF succeeds in making couples more likely to remain together, it may also succeed in reducing their welfare receipt.

On surveys, we will ask respondents about a short list of likely sources of public assistance they may have received. We will focus on those types of public assistance that are most

commonly used by low-income families with children and that offer cash (or cash-equivalent) benefits that should be included in a total income measure. These public assistance benefits include TANF, food stamps, and disability benefits such as Supplemental Security Income (SSI). We will ask whether respondents have received income from this source in the past month and, if so, how much. This latter information will be used to calculate our total income figure.

d. Other Income

Our strategy for measuring income outlined at the beginning of this section requires asking about income received in the prior month from a list of sources that are common for low-income families. The collection of the necessary income information from earning and public assistance has already been described. To complete the collection of data on total income, we also will ask about income during the previous month from child support, unemployment insurance benefits, money from friends and relatives, and earnings from a spouse or partner. Once this list has been read to the respondent, the interviewer will ask one general question about income received during the prior month from sources that were not specifically listed. These various income amounts can then be summed to generate a total income figure for the prior month. We will use this income measure to generate measures of poverty.

e. Asset Accumulation

Another measure of interest for the BSF impact analysis that is closely related to income is asset accumulation. If BSF succeeds in increasing the likelihood that participating couples have committed and stable relationships, they may increase their economic security and, therefore, their ability to accumulate assets and savings. In addition, individuals who are part of a committed couple may be more likely to plan and save for the future. Therefore, if BSF increases the likelihood that participating couples create and maintain committed relationships,

the program may affect asset accumulation through this avenue as well. Moreover, the qualitative work of Kathy Edin and Maria Kefalas (2005) suggests that asset accumulation is closely tied to the marital decisions of low-income women and may, in many instances, be viewed by them as a prerequisite to marriage. For these reasons, we will collect some information concerning assets as part of BSF follow-up surveys. In particular, we will ask respondents whether they own a car or home.

f. Sharing Financial Resources with Current Partner

Determining whether a couple shares financial resources and how available those resources are to each parent and the child will help us determine whether it is appropriate to include a cohabiting partner's income in a family income measure. We will ask several questions on the follow-up surveys that will allow us to examine whether the respondent shares financial resources with his or her current partner. In particular, if a respondent lives with a spouse or partner, we will ask whether they have a joint bank account. We will also include a specific question about income pooling—whether the couple keeps their money separate, puts all their money together, or does something in between these two options. Finally, we will ask respondents whether they and their partner generally share household expenses.

g. Material Hardship

Measures of total income and poverty do not fully capture a families' economic well-being because they do not take into account the families' needs, wealth, debt, and access to credit (Ouelette et al. 2004). One common way of addressing this limitation on follow-up surveys is to collect measures of material hardship that directly examine respondents' unmet basic needs for such things as food, adequate shelter, or health care.

BSF may affect the likelihood that participating families experience material hardship in the same way it may affect their income and poverty levels. In particular, by encouraging couples to form and maintain stable unions, BSF may reduce the likelihood that they or their children experience material hardship. If BSF succeeds in encouraging stable relationships and healthy marriages, it may improve the stability of income and the accumulation of wealth, putting families in a better position to weather a job loss or other financial setbacks and, therefore, at reduced risk of material hardship. In addition, married-couple families may have better access to social support networks, because they have two sets of family members to depend on in an emergency and because family and community members may be more likely to support a couple that is married. If so, BSF may increase couples' access to these support networks, reducing their likelihood of experiencing material hardship. Research has shown that married-parent families are at reduced risk of material hardship compared with similar single-parent families, which suggests that if BSF encourages marriage, it may reduce material hardship (Lerman 2002; Wood et al. 2003).

The 15-month survey will include three material hardship questions, asking whether respondents experienced one of the following in the past year: (1) difficulty paying rent or utilities; (2) eviction; or (3) having their water or electric service cut off. These three hardships tend to be relatively common among low-income families and therefore are appropriate to examine. We may include a longer list of material hardship measures on the 36-month survey.

i. Health Insurance Coverage

Given the possible effects of BSF on family structure and the potential implications of changes in family structure on insurance coverage, health insurance is an important outcome for the impact analysis. We will include a few questions concerning whether the respondent and the BSF focal child have health insurance coverage. For both the respondent and the BSF child, we

will ask whether this insurance coverage is received through a government program or through private health insurance.

4. Parent Well-Being

Although the ultimate goal of BSF is to improve child outcomes, BSF is an intervention with parents and not with children. It is the parents who will be the primary mediators of any impacts of the program on children. Hence, an important pathway by which BSF may affect child well-being is through its potential effects on the well-being of parents. An extensive literature suggests that both physical health and psychological well-being are higher among married than unmarried couples.⁷ Much of this benefit—which appears stronger for men than for women—is thought to be related to the instrumental and emotional support that couples provide one another in their intimate relationship. Therefore, if BSF succeeds in increasing the commitment and stability of the couple relationship, we may observe positive effects on parent well-being as well.

We will measure parent well-being in five domains that may have an impact on child outcomes: mental health, physical health, substance use, incarceration, and social support. The specific outcomes we propose to examine in each of these domains and the rationale for choosing them are described below.

a. Mental Health

Depression and anxiety are the most common mental health symptoms that are known to impair role functioning in the family, both in the couple relationship and in child rearing. An extensive literature exists that supports the adverse impacts of these parental symptoms on children's outcomes (see, for example, Gelfand and Teti 1990, and Downey and Coyne 1990).

⁷ See Wilson and Oswald (2005) for a comprehensive review of this research evidence.

BSF might affect symptoms of depression and anxiety in two ways. First, if the program succeeds in improving the relationship quality of participating couples, this may improve these mental health symptoms. Relationship conflict and relationship instability can be a major source of stress. In addition, if the parents' relationship quality improves and they feel more fulfilled by these relationships, their psychological well-being should improve. Second, the BSF family coordinators are expected to help identify problems and make referrals for needed services, including mental health services. To the extent that participants receive needed services, these support services may also reduce mental health symptoms and improve the couple relationship (depending on the degree to which these symptoms are the cause rather than the effect of relationship difficulties).

Because depressive disorders are more prevalent than anxiety disorders, and because these two sets of conditions often co-occur, we will focus on measures of depression on the 15-month survey. For the 36-month survey, we may expand our mental health measures to include measures of anxiety and general life stress.

At the 15-month follow-up, we will measure depressive symptoms rather than clinical depression. We choose this strategy for two reasons: (1) depressive symptoms can impair role functioning at levels below the diagnostic threshold for clinical depression, and (2) BSF is more likely to have impacts on general depressive symptoms than on the incidence of clinical depression. Other evaluations of programs serving low-income populations—for example, the Early Head Start Research and Evaluation Project—have used a similar strategy of examining program effects on depressive symptoms rather than clinical depression.

To measure depressive symptoms we have chosen to use the Centers for Epidemiologic Studies Depression Scale (CES-D) (Radloff 1977). A 20-item CES-D instrument has been widely used in epidemiologic studies (Guarnaccia et al. 1989, Iwata et al. 2002, and Posner et al.

2001). We plan to use a shorter 12-item version of the CES-D (Ross 1983).⁸ This short version of the CES-D has been widely used in many research studies and is generally considered to have good psychometric properties. However, unlike the 20-item version, there is no established cut-off point for the 12-item CES-D that can be used to identify those who have symptoms consistent with clinical depression.

We will also examine the degree to which these depressive symptoms impair the functioning of respondents. Asking respondents about the extent of role impairment may help explain the extent to which depressive symptoms are related to other outcomes of interest in BSF, such as relationship status and quality, parenting, and child well-being. We will ask respondents who report depressive symptoms how difficult these symptoms made it for them to get their work done or to get along with others.

b. Physical Health

Extensive research evidence suggests that married people are healthier and live longer than those who are not married. Some of this difference appears to be due to “positive selection” into marriage. In particular, individuals with healthier habits and life styles are both more likely to marry and more likely to have good health and longevity. However, after controlling for these initial differences, researchers generally find that marriage is still associated with better health (Lillard and Panis 1996; Wilson and Oswald 2005). Other research suggests that not only marriage but marriage quality improves health outcomes (Wickrama et al. 1997; Prigerson et al. 1999). One explanation for this pattern that is often mentioned is that marriage may encourage

⁸Items from the 12-item CES-D ask respondents how often in the past week they felt or behaved in the following ways: (1) I was bothered by things that usually don't bother me, (2) I did not feel like eating; my appetite was poor, (3) I felt that I could not shake off the blues even with help from my family or friends, (4) I had trouble keeping my mind on what I was doing, (5) I felt depressed, (6) I felt that everything I did was an effort, (7) I felt fearful, (8) My sleep was restless, (9) I talked less than usual, (10) I felt lonely, (11) I felt sad, and (12) I could not “get going.”

healthy behaviors such as good eating habits and regular exercise, and discourage unhealthy ones such as smoking or heavy drinking. Others cite the potential health benefits of the companionship and support that can be found within a happy marriage.

Whatever the specific mechanism, the research evidence suggests that if BSF succeeds in encouraging better relationships and healthy marriage among its participants, it may also improve the physical health of participants. To examine this possibility, on the 15-month survey, we will include the global health measure used on many surveys, including the National Health Interview Survey. In particular, we will ask whether respondents consider their general health to be excellent, very good, good, fair, or poor.

c. Substance Use

Drug and excessive alcohol use has well-documented harmful effects on families. Use of these substances can impair a parent's ability to fulfill social roles and responsibilities inside and outside the home by altering cognitive performance, judgment, and emotion regulation. This is most dramatically demonstrated by the association between substance use and other negative outcomes, such as unemployment, incarceration, domestic violence, and child maltreatment.

Substance use is highly co-morbid with mental health disorders, particularly depression. Because they are so closely linked, BSF may affect substance use through mechanisms that are similar to those for mental health (described in the previous section). In particular, if participants are more fulfilled and satisfied with their romantic relationships, they may be less likely to use drugs and alcohol. In addition, there is research that has linked being part of a stable romantic relationship (and particularly a marriage) with reductions in risk-taking behaviors, such as drug and excessive alcohol use. Therefore, if BSF succeeds in promoting stable relationships, substance use may be reduced. Finally, BSF participants who are found to be in need of and willing to avail themselves of substance use treatment are to be referred to these services by

family coordinators. These referrals may increase their likelihood of receiving this kind of treatment and, therefore, may reduce substance use among participants.

To examine BSF's potential effects on substance use, we will include three questions on this topic on the 15-month follow-up survey. First, we will ask respondents about their frequency of binge drinking during the year prior to the survey. For women, "binge drinking" is defined in the literature as having four or more drinks in a day. For men, it is defined as having five or more drinks in a day. Second, we will ask respondents whether alcohol or drug use has interfered with their ability to hold a job or get along with others during the past year. Third, we will ask respondents whether drug or alcohol use has interfered with the BSF partner's ability to hold a job or get along with others. We have included this latter question because we believe that the respondent is less likely to underreport their partner's functional impairment than their own.

d. Criminal Involvement

Another aspect of parent well-being that can have important implications for children is criminal involvement and incarceration. Recent research suggests that a history of incarceration may be fairly common among those in the BSF target population, particularly fathers. In the Fragile Families and Child Wellbeing Study, which (similar to BSF) focuses on a population of unwed parents around the time of their child's birth, almost 30 percent of mothers reported that the father of their child had been incarcerated in the past (Western 2004). In addition, in their qualitative work, Edin and Kefalas (2005) document the frequent and disruptive nature of fathers' incarceration. If a father spends time in jail, it will not only influence his involvement with the child, but it will have a negative impact on the family's economic situation in both the short and long term. Extended periods of incarceration also have obvious negative consequences for romantic relationships.

BSF may affect rates of incarceration and involvement in criminal activity through its potential effect on relationship stability and quality. Individuals who feel more committed to their partners and to their children may be less likely to engage in criminal activity and more likely to comply with probation or parole requirements, because of concerns over how this behavior may affect their family members. As with substance use, the increased personal stability that may accompany being part of a stable relationship (particularly a marriage), may reduce the likelihood that individuals engage in risky behaviors, such as criminal activity.

Because of the high rates of involvement with the criminal justice system among the BSF target population and because of BSF's potential effect on involvement with criminal activity, we will include some questions concerning this topic on follow-up surveys. These questions will focus on sample members' involvement with the criminal justice system rather than their involvement with actual criminal activity. We will use this approach because involvement with criminal activity is likely to be substantially underreported.

We will ask the mothers in our study sample, not only about their own criminal involvement, but also about the criminal involvement of their BSF partners. Work done by researchers using Fragile Families data suggests that women are substantially more likely to report criminal involvement on the part of their partners than are the men about themselves (Western et al. 2002). Therefore, we expect to get a more accurate report on fathers' criminal involvement from mothers than we get from fathers directly. However, because women are substantially less likely than men to be involved with the criminal justice system, we will not ask fathers about the criminal involvement of mothers.

On the 15-month survey we will ask respondents the following three items concerning their involvement with the criminal justice system during the period since random assignment: (1) whether they have ever been arrested, (2) the number of times they have been arrested, and (3)

whether they are currently in jail or prison. Because of the potential for a long lag time between committing a crime and being convicted of it, we will focus on arrests and incarceration, rather than convictions on the 15-month survey. This lag means that, in many cases, convictions that occur between random assignment and the first follow-up will be for crimes that occurred prior to random assignment. Therefore, BSF would be unlikely to have an impact on convictions occurring during this period.

We may want to ask additional detail concerning involvement with the criminal justice system on the 36-month survey, including information on convictions, as well as the type of crime with which respondents were involved. By the time of the 36-month survey, it would be much more likely that post-random assignment convictions would be for crimes committed after random assignment. Therefore, we would be more likely to observe an impact on convictions at this point, making this a more relevant outcome measure to examine at the 36-month survey. We may also want to examine the type and seriousness of the crimes with which sample members are charged or convicted at this point. This information would allow us to examine separately the potential effect BSF may have on involvement with more and less serious crimes.

Another criminal involvement measure that we may want to consider including on 36-month follow-up survey is whether sample members are on probation or parole. Many studies have shown that a high percentage of low-income young men are on probation or parole at a given point in time. Moreover, this legal status can have serious consequences—it can seriously limit an individual’s activities, and returns to incarceration occur frequently from parole violations. However, it is unlikely that we will observe impacts on this outcome at 15 months since, as with convictions, probation or parole at this point will typically be for crimes that occurred prior to random assignment. Therefore, we will not include this outcome on the 15-month survey.

e. Social Support

The final aspect of parent well-being we will measure is social support. Social support has consistently been shown to have a powerful impact on health and well-being (House et al. 1988; Turner and Turner 1999). Moreover, social isolation and a lack of support networks can be common among low-income families (Edin and Kafalas 2005). For these reasons, examining the extent of social support networks is an important element of an analysis of BSF possible effects on parent well-being.

BSF may affect social support in many ways. First, through participation in group sessions, participating couples will have the opportunity to get to know other couples who are in circumstances similar to their own. These other couples may serve as part of an expanded social support network. Second, by making couples more likely to stay together, BSF may help them maintain their support networks. Couples generally have two sets of friends and relatives to call on in emergencies while single individuals have only one set. Marriage may yield support from relatives and community members not forthcoming to cohabiting or visiting partners. In addition, relationship breakup can be socially isolating. Therefore, if BSF makes breakup less likely, it may have positive effects on social support. Third, if BSF increases residential stability, it will allow couples to establish a higher level of social connection in their community. Fourth, other forms of stability promoted by BSF, such as in employment, may also allow for greater social connection through the workplace. Fifth, couple-relationship skills acquired in BSF might generalize to their other social relations and, thereby, enhance each partner's level of social support. Finally, it is possible that a couple might perceive a higher level of social support for their relationship if they make a more public commitment to one another by becoming married, because family and community members may support stable and committed (and particularly married) couples more than less committed couples.

Three main types of perceived social support may be affected by BSF: (1) emotional support, (2) tangible support, and (3) validation support. Emotional support—having close, confiding relationships with others—will be measured with a question concerning the number of people the respondent could turn to if they had a problem and were feeling “depressed or confused about what to do.” Tangible support, or having access to practical help, will be measured by two questions concerning the number of people available to the respondent who could provide emergency child care or a small loan. Validation support—having a social network that makes one feel accepted or normal—will be measured by two survey items, one asking whether the respondent has friends who are “ready to settle down,” and another about the extent to which their friends and relatives support their relationship with their BSF partner. Similar questions on social support were included in Fragile Families surveys and in surveys conducted as part of the Work First New Jersey evaluation.

VI. NEXT STEPS

The BSF evaluation described in this report includes a comprehensive implementation analysis and a rigorous impact analysis. The implementation analysis examines the development and implementation of the BSF programs, as well as the type and intensity of services received by BSF couples. The impact analysis uses a rigorous experimental design with longitudinal follow-up. Data will be collected at three points of time: at the time of enrollment (baseline), at about 15 months after random assignment, and when the couple's child is about three years of age.

Currently, seven BSF sites have started full operations. They are enrolling couples, conducting random assignment, collecting baseline information data on both program and control group members, and collecting service data and group attendance information on couples assigned to the program group. The earliest site began enrollment into the evaluation in July 2005, the last site began enrollment in March 2006.

Enrollment and data collection will continue for several years. Enrollment of couples and collection of baseline data will continue through November 2007. The 15-month follow-up survey will be fielded from October 2006 through February 2009. The 36-month follow-up survey is scheduled for July 2008 through November 2010. The first round of site visit data collection occurs in the second half-year of each program's operation (June-December 2006), and the second round will occur one year later (June-December 2007).

The findings from the evaluation will be described in four reports. We recently drafted a report documenting the lessons learned from BSF pilot operations (Dion et al. 2006). We will produce three further reports: (1) a report produced in early 2007 that describes the interim findings from the implementation analysis, based on the first round of site visits and MIS data

collected at that time; (2) a report produced in early 2010 that describes the findings from an impact analysis conducted using the 15-month follow-up data collection; and (3) a final report produced in late 2011 that presents all the findings from the evaluation, including implementation analysis findings from the two rounds of site visits and a complete set of MIS data on all couples and the impact analysis findings based on both the 15-month follow-up and 36-month follow-up data collections.

REFERENCES

- Abidin, R.R., & Brunner, J.F. "Development of a Parenting Alliance Inventory." *Journal of Clinical Child Psychology*, vol. 24, no. 1, 1995.
- Amato, P. "Children of Divorce in the 1990s: An Update of the Amato and Keith (1991) Meta-Analysis." *Journal of Family Psychology*, vol. 15, 2001.
- Amato, P. "Studying Marital Interaction and Commitment with Survey Data." Paper presented at Healthy Marriage Interventions and Evaluation Symposium of the Measurement Issues in Family Demographic Conference. Washington, DC, November 13-14, 2003.
- Amato, P., & Booth, A. *A Generation at Risk: Growing Up in An Era of Family Upheaval*. Cambridge MA: Harvard University Press, 1997.
- Bloom, H. S. "Accounting for No-Shows in Experimental Evaluation Designs." *Evaluation Review*, vol. 8, 1984.
- Bradbury, T.N., Fincham, F., & Beach, S. "Research on the Nature and Determinants of Marital Satisfaction: A Decade in Review." *Journal of Marriage and the Family*, vol. 62, November 2000.
- Brooks-Gunn, J., & Duncan, G.J. "The Effects of Poverty on Children." *Children and Poverty*, vol. 7, no. 2, Summer/Fall 1997.
- Caldwell, B.M., & Bradley, R.H. *Home Inventory Administration Manual, Third Edition*, 2001. Little Rock, AR: University of Arkansas at Little Rock, 2001.
- Campbell, A., Converse, O.E., & Rodgers, W.L. *The Quality of American Life: Perceptions, Evaluations, and Satisfactions*. New York, NY: Russell Sage Foundation, 1976.
- Carlson, M.J., & Furstenberg, Jr., F.F. "The Prevalence and Correlates of Multipartnered Fertility Among Urban U.S. Parents." Working Paper #03-14-FF. Princeton, NJ: Princeton University, Center for Research on Child Wellbeing, January 2006.
- Carlson, M., McLanahan, S., & England, P. "Union Formation and Stability in Fragile Families." Paper presented at the Annual Meetings of the Population Association of America, March 2001.
- Carlson, M., McLanahan, S., & England, P. "Union Formation in Fragile Families." *Demography*, vol. 41, May 2004.
- Carrano, J., Cleveland, K., Bronte-Tinkew, J. & Moore, K. "Conceptualizing and Measuring Healthy Marriages for Empirical Research and Evaluation Studies: A Compendium of Measures." Washington, DC: Child Trends, 2003.

- Carroll, J., & Doherty, W.J. "Evaluating the Effectiveness of Premarital Prevention Programs: A Meta-Analytic Review of Outcome Research." *Family Relations*, vol. 52, no.2, 2003.
- Cherlin A.J., Burton, L.M., Hurt, T.R., Purvin, D.M. "The Influence of Physical and Sexual Abuse on Marriage and Cohabitation." *American Sociological Review*, vol. 69, no. 6, 2004.
- Citro, C., & Michael, R.T. *Measuring Poverty: A New Approach*. Washington, DC: National Academy, 1995.
- Cummings, E.M., Ballard, M., El-Sheikh, M., & Lake, M. "Resolution and Children's Responses to Interadult Anger." *Development Psychology*, vol. 27, no. 3, 1991.
- Cummings, E. M., & Davies, P. *Children and Marital Conflict: The Impact of Family Dispute and Resolution*. New York: Guilford Press, 1994.
- Dion, M.R., Avellar, S., Zaveri, H., & Hershey, Alan. "Implementing Healthy Marriage Programs for Unmarried Couples with Children: Early Lessons from the Building Strong Families Project." Washington, DC: Mathematica Policy Research, Inc., June 2006.
- Downey G., & Coyne, J.C. "Children of Depressed Parents: An Integrative Review." *Psychological Bulletin*, vol. 108, 1990.
- Edin, K. "What Do Low-Income Single Mothers Say About Marriage?" JCPR Working Paper 100, July 1999.
- Edin K., & Kefalas, M. *Promises I Can Keep: Why Poor Women Put Motherhood Before Marriage*. Berkeley, CA: University of California Press, 2005.
- Ehrle, J., & Moore, K.A. *1997 NSAF Benchmarking Measures of Child and Family Well-Being: Report No. 6*. Washington, D.C.: The Urban Institute, 1999.
- Emery, R E. "Interparental Conflict and the Children of Discord and Divorce." *Psychological Bulletin*, vol. 92, 1982.
- Fincham, F. "Marital Conflict: Correlates, Structure, and Context." *Current Directions in Psychological Science*. 2003.
- Frangakis, Constantine E. and Donald B. Rubin. "Principal stratification in causal inference." *Biometrics*, vol. 58, 2002.
- Gelfand, D.M., & Teti, D.M. "The Effects of Maternal Depression on Children." *Clinical Psychology Reviews*, vol. 10, 1990.
- Gottman, J. *Sound Relationship House Scale*. Seattle, Washington: University of Washington, 2004.
- Gottman, J. *What Predicts Divorce? The Relationship Between Marital Process and Marital Outcomes*. New Jersey, Lawrence Erlbaum, 1993.

- Grych, J. & Fincham, F. *Interparental Conflict and Child Development: Theory, Research, and Applications*. New York, Cambridge University Press, 2001.
- Guarnaccia, P.J., Angel, R., & Worobey, J.L. "The Factor Structure of the CES-D in the Hispanic Health and Nutrition Examination Survey: the Influences of Ethnicity, Gender, and Language." *Social Science and Medicine*, vol. 29, no. 1, 85–94, 1989.
- Guerney, B.G. *Relationship Enhancement*. San Francisco, CA: Jossey-Bass, Inc., 1977.
- Guzman, L., Moore, K., Matthews, G., & Redd, Z. "Summary Report on Cognitive Interviews for Healthy Marriage Item Development." Washington, DC: U.S. Department of Health and Human Services, 2005.
- Harknett, K., & Knab, J.T. "More Kin, Less Support: Multipartnered Fertility and Perceived Support Among Unmarried Parents." Unpublished working paper. Philadelphia, PA: University of Pennsylvania, 2005.
- Hawkins, A.J., Fowers, B.J., Carroll, J.S., & Yang, C. "Conceptualizing and Measuring a Construct of Marital Virtues. In S. Hofferth & L. Casper (Eds.) *Handbook of Measurement Issues in Family Research*. Mahwah, NJ: Lawrence Erlbaum, 2006 (in press).
- Hershey, A., Devaney, B., Dion, M.R., & McConnell, S. "Building Strong Families: Guidelines for Developing Programs." Washington, DC: Mathematica Policy Research, Inc., 2004.
- House, J.S., Umberson, D., & Landis, K.R. "Structures and Processes of Social Support." *Annual Review of Sociology*, vol. 14, 1988.
- Huston, T.L., & Chorost, A.F. "Behavioral Buffers on the Effect of Negativity on Marital Satisfaction: A Longitudinal Study." *Personal Relationships*, vol. 1, 1994.
- Iwata, N., Turner, R.J., & Lloyd, D.A. "Race/Ethnicity And Depressive Symptoms in Community Young Adults: A Differential Item Functioning Analysis." *Psychiatry Research*, 2002.
- Karney, B.R., & Bradbury, T.N. "The Longitudinal Course of Marital Quality and Stability: A Review of Theory, Method, and Research." *Psychological Bulletin*, vol. 118, 1995.
- Kessler, R.C., Barker, P.R., Colpe, L.J., Epstein, J.F., Gfroerer, J.C., Hiripi, E., et al. "Screening for Serious Mental Illness in the General Population." *Archives of General Psychiatry*, vol. 60, no. 2, 184-189, 2003.
- Lamb, M.E. "The development of father-infant relationships." In M.E. Lamb (Ed.), *The role of the father in child development*, (3rd ed., pp. 104-120). New York: Wiley, 1997.
- Larzelere, R.E., & Huston, T.L. "The Dyadic Trust Scale: Toward Understanding Interpersonal Trust in Close Relationships." *Journal of Marriage and the Family*, vol. 42, 1980.

- Lawrence, S. *Domestic Violence and Welfare Policy*. New York, NY: National Center for Children in Poverty, 2002.
- Lerman, R.I. "How Do Marriage, Cohabitation, and Single Parenthood Affect the Material Hardships of Families with Children?" Urban Institute and American University, July 2002.
- Lillard, L.A. & Panis, C.W.A. "Marital Status and Mortality: The Role of Health." *Demography*, vol. 33, 313-327, 1996.
- Lippman, L., Michelsen, E., & E.C. Roehlekepartain. "The Measurement of Family Religiosity and Spirituality." Washington, DC: U.S. Department of Health and Human Services, 2005.
- Locke, J. J. & Wallace, K.M. "Short Marital Adjustment and Prediction Tests: Their Reliability and Validity." *Marriage and Family Living*, vol. 21, 1959.
- Love, J.M., Kisker, E.E., Ross, C.M., Brooks-Gunn, J., Schochet, P., Boller, K., Constantine, J., Vogel, C., Fuligni, A., Brady-Smith, C. "Making a Difference in the Lives of Infants and Toddlers and their Families: The Impacts of Early Head Start." Washington, DC: Administration for Children and Families, June 2002.
- Lundberg, S., & Rose, E. "Child Gender and the Transition to Marriage." *Demography*, vol. 40, no. 2, 333-349, May 2003.
- Markman, H., Floyd, F., Stanley, S., & Storaasli, R. "Prevention of Marital Distress: A Longitudinal Investigation." *Journal of Consulting and Clinical Psychology*, vol. 56, no. 2, 1988.
- Martin, J.A., Kochanek, K.D., Strobino, D.M., Guyer, B., & MacDorman, M.F. "Annual Summary of Vital Statistics – 2003." *Pediatrics*, vol. 115, no. 3, 619-634, March 2005.
- Mayer, S.J. *What Money Can't Buy: Family Income and Children's Life Chances*. Cambridge, MA: Harvard University Press, 1997.
- McGroder, S. M. Parenting among low-income, African American single mothers with preschool-age children: Patterns, predictors, and developmental correlates. *Child Development*, vol. 71, no. 3, 2000.
- McLanahan, S., & Sandefur, G. *Growing up with a Single Parent: What Hurts, What Helps*. Cambridge, MA: Harvard University Press, 1994.
- Miller, C., Knox, V., Gennetian, L., Dodoo, M., Hunter, J., Redcross, C. "Reforming Welfare and Rewarding Work: Final Report on the Minnesota Family Investment Program." Volume I: "Effects on Adults." New York: MDRC, 2000.
- Mincy, R. B. "Who Should Marry Whom? Multiple Partner Fertility among New Parents." Fragile Families Working Paper 02-02-FF. Princeton, NJ: Center for Research on Child Wellbeing.

- Murstein, B. I. & MacDonald, M.G. "The Relationship of "Exchange-Orientation" and "Commitment" Scales to Marriage Adjustment." *International Journal of Psychology*, vol. 18, 1983.
- Norton, R. "Measuring Marital Quality: A Critical Look at the Dependent Variable." *Journal of Marriage and the Family*, vol. 45, 1983.
- Ouellette, T., Burstein, N., Long, D., Beecroft, E. "Measures of Material Hardship: Final Report." Washington, DC: U.S. Department of Health and Human Services, April 2004.
- Posner, S. F., Stewart, A. L., Marin, G., & Perez-Stable, E. J. "Factor Variability of the Center for Epidemiological Studies Depression Scale (CES-D) among urban Latinos. *Ethnicity and Health*, vol. 6, 137-144
- Prigerson, H.G., Maciejewski, P.K., & Rosenheck, R.A. "The Effects of Marital Dissolution and Marital Quality on Health and Health Service Use Among Women. *Medical Care*, vol. 37, no. 9, 858-873, 1999.
- Radhakrishna, A., Bou-Saada, I., Hunter, W., Catellier, D., & Kotch, J. "Are Father Surrogates a Risk Factor for Child Maltreatment," *Child Maltreatment*, vol. 6. no. 4, November 2001.
- Radloff, L.S. "The CES-D Scale: A Self-Report Depression Scale for Research in the General Population." *Applied Psychological Measurement*, vol. 1, 1977.
- Rangarajan, A., & Gleason, P. "Young Unwed Fathers of AFDC Children: Do They Provide Support?" *Demography*, vol. 35, no. 2, May 1998.
- Ross, C.E., Mirowsky, J., & Huber, J. "Dividing work, sharing work, and in-between: Marriage patterns and depression." *American Sociological Review*, 48, 809-823, 1983.
- Rosenbaum, P.R. & Rubin, D.B. "The Central Role of the Propensity Score in Observational Studies for Causal Effects." *Biometrika*, vol. 70, no. 1, 41-55, 1983.
- Shapiro, A. F., Gottman, J.M., & Carrere, S. "The Baby and the Marriage: Identifying Factors That Buffer Against Decline in Marital Satisfaction After the First Baby Arrives." *Journal of Family Psychology*, vol. 14, March 2000.
- Smock, P., & Manning, W. "Living Together Unmarried in the United States: Demographic Perspectives and Implications for Family Policy." *Law & Policy*, vol. 26, no. 1, 87-117, 2004.
- Spanier, G. B. "Measuring Dyadic Adjustment: New Scales for Assessing the Quality of Marriage and Similar Dyads." *Journal of Marriage and the Family*. vol. 38, 1976.

- Stanley, S. "Assessing Couple and Marital Relationships: Beyond Form and Toward a Deeper Knowledge of Function." Paper presented at Healthy Marriage Interventions and Evaluation Symposium of the Measurement Issues in Family Demographic Conference. Washington, DC, November 13-14, 2003.
- Stanley, S., & Markman, H. "Assessing Commitment in Personal Relationships." *Journal of Marriage and the Family*. vol. 54, 1992.
- Stanley, S. & Markman, H. "Marriage in the 90s: A Nationwide Randomized Phone Survey." Denver, Colorado: Prep, Inc., 1997.
- Straus, M.A., Hamby, S.L., Finkelhor, D., Moore, D.W., & Runyan, D. "Identification of Child Maltreatment With the Parent-Child Conflict Tactics Scales: Development and Psychometric Data for a National Sample of American Parents." *Child Abuse & Neglect*, vol. 22, no. 4. 1998.
- Strauss, M.A., & Douglas, E.M. "A Short Form of the Revised Conflict Tactics Scales, and Typologies for Severity and Mutuality." *Violence and Victims*, vol. 19, no. 5, October 2004.
- Strauss, M.A., Hamby, S.L., Boney-McCoy, S., & Sugarman, D.B. "The Revised Conflict Tactics Scale." *Journal of Family Issues*, vol. 17. no. 3, May 1996.
- Tamis-LeMonda, C.S., Shannon, J.D., Cabrera, N.J., & Lamb, M.E. "Fathers and mothers at play with their 2- and 3-year-olds: Contributions to language and cognitive development." *Child Development*, 75, 1806-1820, 2004.
- Turner, R.J. & Turner, J.B. "Social Integration and Support." In *Handbook of the Sociology of Mental Health*. Eds. C.S. Aneshensel, J.C. Phelan. New York: Kluwer Academic/Plenum Publishers, 1999.
- U.S. Department of Health and Human Services. "Indicators of Welfare Dependence: Annual Report to Congress." October 1997.
- Wampler, K. S. "An Update on Research on the Couple Communication Program." *Family Science Review*, vol. 3, no.1, 1990.
- Western, B. "The Impact of Incarceration on Wage Mobility and Inequality." *American Sociological Review*, vol. 67, 526-546, 2002.
- Western, B. "Incarceration, Marriage, and Family Life." Working Paper #05-09-FF. Princeton, NJ: Princeton University, Center for Research on Child Wellbeing, 2004.
- Wickrama, K.A.S., Lorenz, F.O., Conger, R.D., & Elder, Jr., G.H. "Marital Quality and Physical Illness: A Latent Growth Curve Analysis." *Journal of Marriage and the Family*, vol. 59, no. 1, 143-155, February 1997.

Wilson, C.M., & Oswald, A.J. "How Does Marriage Affect Physical and Psychological Health? A Survey of the Longitudinal Evidence." Discussion Paper No. 1619. Bonn, Germany: Institute for the Study of Labor (IZA), June 2005.

Wood, R.G., Rangarajan, A., and Deke, J. "WFNJ Clients Under Welfare Reform: How Is an Early Group Faring Over Time?" Princeton, NJ: Mathematica Policy Research, Inc., September 2003.

Zhang, J. L. and Donald Rubin, "Estimation of causal effects via principal stratification when some outcomes are truncated by 'death'," *Journal of Educational and Behavioral Statistics*, vol. 28, 2003.

Zhang, J. L., Rubin, D. B., and Mealli, F. "Using the EM Algorithm to Estimate the Effects of Job Training Programs on Wages," Proceedings of the 55th Session of the International Statistical Institute. 2005.

Zhang, J. L., Rubin, D. B., and Mealli, F. "Evaluating the Effects of Job Training Programs on Wages through Principal Stratification," Volume 21 of *Advances in Econometrics: Modeling and Evaluating Treatment Effects in Econometrics*, 2006.

APPENDIX A

KEY QUESTIONS FOR THE STUDY OF BSF PROGRAM IMPLEMENTATION

APPENDIX A

KEY QUESTIONS FOR THE STUDY OF BSF PROGRAM IMPLEMENTATION

Key Questions	Staff Interviews					Focus Groups				Phone Interviews		
	Program Management Staff	Family Coordinators	Outreach and Intake Staff	Group Facilitators	Recruitment Source Staff	Program Participants	Direct Program Observation	Document Review	Non-Participants	MIS		
1. PROGRAM CONTEXT												
A. What was the impetus for creating a BSF program in this community? Which agencies or individuals were involved and what were their roles?	X							O				
B. What did the planning process involve (including agencies and individuals)?	X				X			O				
C. What are the program's sources of funding? How was it obtained and managed?	X							O				
D. What agencies are involved in delivering BSF? What roles do they serve? Why were they interested in supporting BSF?	X				X			O				
E. Is BSF integrated into a "host" organization? If so, what are the goals and structure of the host organization?	X							O				
F. How does BSF fit into the host organization's philosophy and operations?	X							O				
G. What services are available either at the host organization or within the community to provide support to BSF couples?	X											
H. How does the state or local political climate impede or support the BSF program?	X											

Key Questions	Staff Interviews					Focus Groups				Phone Interviews	
	Program Management Staff	Family Coordinators	Outreach and Intake Staff	Group Facilitators	Recruitment Source Staff	Program Participants	Direct Program Observation	Document Review	Non-Participants	MIS	
2. OUTREACH AND RECRUITMENT											
A. What strategies are used to identify and recruit participants? Have these strategies changed over time? Which ones seem most effective?	X		X		X		O				
B. What are the main sources used by the organization for recruiting BSF participants?	X		X		X						
C. What messages do participants receive about BSF during the enrollment process? Who delivers these messages?	O		X			X			X		
D. What kinds of changes, if any, did the host organization need to make to its existing recruitment processes to identify a sufficient number of BSF participants?	X		X		X						
E. Which staff are responsible for conducting outreach? Are male outreach staff used? How important is the use of male staff?	X		X		X						
F. In selecting outreach staff, how does the organization take into account their ability to identify and communicate with the target population?	X		X								
G. How does the site reach out to the male partners of women who agree to enroll in the program? What strategies work to encourage male recruitment and enrollment?	O		X								
H. What process or tool(s) are used to identify couples for whom the program is inappropriate (e.g., involved in domestic violence)? If identified, how is the situation addressed?	X		X			O					

Key Questions	Staff Interviews							Focus Groups					Phone Interviews		
	Program Management Staff	Family Coordinators	Outreach and Intake Staff	Group Facilitators	Recruitment Source Staff	Program Participants	Direct Program Observation	Document Review	Non-Participants	MIS					
I. What are the demographic characteristics of those who consented to be in the study?															X
J. How many prospective clients refuse consent, and for what reasons?	X		X						O						X
K. How successful are sites in recruiting eligible couples? Does success vary by population group or certain background characteristics? How often does one partner consent but not the other?															X
L. Once a couple is enrolled, what methods are used to sustain interest while waiting for curriculum groups to begin? How frequent/intensive are these activities?		X													
M. What messages do enrollees receive about group prior to their start? How do staff respond when only one parent attends pre-group activities?		X													
3. OPERATIONS: IMPLEMENTATION OF CORE BSF COMPONENTS															
Curriculum Delivery: Instruction in Skills Associated with Healthy Marriage															
A. Where is the BSF program located? Is the setting easily accessible and welcoming to both low-income men and women?											O		X		O
B. Which curriculum is used in the group session? What format (structure, meeting frequency, times) is used? How closely do staff follow the curriculum? What curriculum refinements were necessary?							X						X		

Key Questions	Staff Interviews							Focus Groups				Phone Interviews	
	Program Management Staff	Family Coordinators	Outreach and Intake Staff	Group Facilitators	Recruitment Source Staff	Program Participants	Direct Program Observation	Document Review	Non-Participants	MIS			
C. What is the average number of couples that attend group sessions? How many group facilitators or coaches are used in classes? How many facilitators are male?													X
D. What is the background, experience, and qualifications of BSF group facilitators, and do they vary by facilitators' gender? How many staff, if any, have a mental health or marriage and family therapy background?	X			X									
E. How were BSF group facilitators trained in the curriculum or other aspects of service delivery to couples? How are group facilitators monitored or supervised?	X			X									
F. How do BSF couples respond to the curriculum group sessions? Do they readily engage in the material? Do men actively participate in group sessions?				X						X			X
G. What do couples like/dislike about the curriculum sessions? What do they find most and least useful?				X						X			X
H. To what extent do couples engage in take-home exercises, if applicable?				X						X			
I. What level of satisfaction do participants report? What suggestions do they have for changes?				X						X			X
J. To what extent is the social aspect of the curriculum groups important to couples? Do couples socialize with each other outside of the BSF groups?				X						X			X

Key Questions	Staff Interviews					Focus Groups				Phone Interviews	
	Program Management Staff	Family Coordinators	Outreach and Intake Staff	Group Facilitators	Recruitment Source Staff	Program Participants	Direct Program Observation	Document Review	Non-Participants	MIS	
Family Coordinators											
A. What are the roles and responsibilities of the family coordinator?	X	X									
B. What is the background and experience of family coordinators? How are family coordinators trained (by whom, when, how long, in what areas)?	X	X									
C. What topics besides couple relationships are discussed with family coordinators? How much time is devoted to activity or discussion of relationship skills or group attendance?	O	X				O	O				
D. How committed do program staff appear to be to the BSF model? How comfortable are family coordinators in talking with clients about marriage?	O	O	O	O	O	O	X				
E. What forms of assessment are used to identify each couple's service needs? When, where, and how are assessment conducted?	X	X									
F. How frequently and for how long do family coordinators meet with couples? Over what period of time? Where do the meetings take place?	X	X				O					
G. How do family coordinators reinforce the marriage/relationship skills being learned in the group session?	X	X				O	X				
H. How do family coordinators encourage attendance in and completion of the BSF program?	X	X				O	X				

Key Questions	Staff Interviews					Focus Groups				Phone Interviews	
	Program Management Staff	Family Coordinators	Outreach and Intake Staff	Group Facilitators	Recruitment Source Staff	Program Participants	Direct Program Observation	Document Review	Non-Participants	MIS	
Links to Family Support Services											
A. What are the family support services offered at the site or in the community? How accessible are the services?	X	X				O					
B. How often are BSF participants referred to family support services?	X	X				O				X	
C. Which services appear to be most needed by BSF families?	O	X				O				X	
D. How often do participants engage in the family support services? Does participation vary by whether services are offered in-house or out in the community?		X				O				X	
E. What do program staff do if participants refuse needed substance abuse treatment or mental health services?	X	X				O					
F. How does the program assess for possible domestic violence among participants? If found, how is it addressed? How often does this occur? Do the participants stay in the program?	X	X		X						X	
G. Are new mothers formally assessed for post-partum depression? If so, what screener is used and what action is taken for positive assessments?	X	X									
4. ENROLLMENT, ENGAGEMENT, AND PARTICIPATION											
A. How often do enrolled couples attend initial curriculum group sessions together?				O					O	X	
B. What reasons do enrollees give for never attending a group session or for dropping out?		O		O		O			X	O	

Key Questions	Staff Interviews							Focus Groups				Phone Interviews				
	Program Management Staff	Family Coordinators	Outreach and Intake Staff	Group Facilitators	Recruitment Source Staff	Program Participants	Direct Program Observation	Document Review	Non-Participants	MIS						
C. How often do couples continue to attend curriculum sessions together? Are there “drop offs” for attrition from curriculum group sessions?				O			O								X	
D. How often do participants attend without their partners? Is this more common for men or women? What reasons do they give for attending without their partners?		O		O						X						X
E. How do the background characteristics of couples who participate more frequently differ from those who participant inconsistently or not at all?																X
F. What activities or strategies are used to encourage participation in the initial curriculum group sessions, prior to their start (e.g., home visits, orientation sessions, phone calls)?	O	X		X												
G. What, if any, incentives are offered to participants? How and when are the incentives disclosed?	X	O		O				X								
H. What strategies are used to make participation more convenient (e.g., child care, transportation)?	X	O		O												
I. What attempts, if any, are made to re-engage participants who do not attend? How effective are these strategies?	X	O		O												
J. What strategies are used to maintain involvement of participants among those who have begun attending group sessions? Which of these appear to be more effective?	X	X		O												
K. How important does the presence of male-female teams of staff appear to be in retention of participants?	O	O		O						X					O	

Key Questions	Staff Interviews						Focus Groups				Phone Interviews	
	Program Management Staff	Family Coordinators	Outreach and Intake Staff	Group Facilitators	Recruitment Source Staff	Program Participants	Direct Program Observation	Document Review	Non-Participants	MIS		
L. Is frequent contact by family coordinators associated with greater participation? If so, what kind of contact?	X	X				O						O
M. What non-program related factors seem to be associated with ongoing attendance, and what factors are associated with attrition?	X	X		O		X			X			X
N. Do barriers to participation differ for mothers or fathers? How do staff try to address these barriers?	O	X		O								
O. How do program staff deal with couples who break up over the course of attending the series of group sessions?	X	X		X								
5. REPLICABILITY AND PROGRAM COSTS												
A. What conditions appear to be critical for replicating the BSF program? Are there demographic, economic, political, or cultural conditions that must be met?	X										X	
B. How much does the BSF program spend to implement and provide all activities to participants? What is the total cost per couple?	X											
C. Has the BSF program benefited from volunteer labor? If so, how many volunteer, how much time do they provide, and what tasks do they perform?	X											

Note: "X" identifies the primary respondent(s) for each question, and "O" identifies secondary respondent(s).

APPENDIX B

PROTOCOL FOR FOCUS GROUPS WITH PARTICIPANT COUPLES

APPENDIX B

BUILDING STRONG FAMILIES PROJECT PROTOCOL FOR FOCUS GROUPS WITH PARTICIPANT COUPLES

NOTE: This is a guide, not a script. Moderators may vary topics and probes to accommodate particular sites and groups.

I. INTRODUCTION (*5 minutes*)

A. Moderator and co-facilitator introductions

Explain we are an independent research firm; most work is for federal government, evaluating programs. In this project, we are studying how BSF programs work. Welcome participants and thank them for coming

B. Explanation of Project and Purpose of Group Discussion

Describe what a focus group is – a way to find out what people think through group discussion. We are interested in learning about your ideas, feelings, and opinions. We are interested in learning about how you came to be involved in this program, what program activities you have participated in, what you find helpful about this program, and what you think should be improved.

C. Confidentiality and Taping

Information we collect will be summarized only for the project; what you say will be kept private. We will not use any names or quote anyone.

We value the information you will share with us today and want to make sure we capture all of it. So we will be taping the session and taking notes. Does anyone have any objection to taping this group?

D. Ground Rules for Discussion

- ▶ This will be an informal discussion.
- ▶ We will talk for about 1 to 1½ hours. There will be no formal breaks. Please feel free to get up at any time to stretch, go to the bathroom, and help yourself to some light refreshments.
- ▶ At the end of the session there will be a short information form to complete. You don't need to put your name on the form. All information is private.
- ▶ There are no right or wrong answers to the questions we will ask. We are interested in learning each of your opinions. We very much appreciate your input.

- ▶ We would like only one person to talk at a time so the recorder can pick up everyone. But we hope that each of you will speak up, and tell us your thoughts and feelings.
- ▶ To keep us on schedule, I may change the subject or move ahead. Please stop me if you have something to add.
- ▶ To help us keep track of comments, we may record some points on a flip chart.

II. PARTICIPANT INTRODUCTIONS (5 minutes)

For the first group of questions and to get things started, I'm going to go around the room and ask each of you in turn to answer a few questions about yourself. Then we will have some more general discussion about your experiences in [BSF program] activities. We would like everyone to participate in the discussion.

Ask each person to introduce him/herself – please tell us:

How long you have known each other, whether you live together or are married

How many children you have together, and whether you have other children

III. DISCUSSION TOPICS AND PROBES

A. REFERRAL TO BSF (10 minutes)

1. How did you come to be in this program -- what brought you to it?
Probes: referred by case manager; heard about it from a friend; outreach activities such as fliers, presentations at welfare office, housing complex, health care clinic, or hospital.
2. What were your reasons for participating? Was there anything in particular that convinced you to participate in the program?
3. What did you expect to get out of the program?

B. WHAT WERE THE IMPORTANT PARTS OF THE PROGRAM? (15 minutes)

1. We are interested in how the [BSF program] works as you see it. What are the main parts of the program that you were involved with?
2. What kinds of help did you get from each part of the program? Were there particular problems you were facing that you got help with from the group sessions? From other program staff such as the [family coordinators]?

C. HOW MUCH DID YOU PARTICIPATE IN GROUP SESSIONS? *(15 minutes)*

1. What was it like to start going to the [BSF] group sessions? Did you have any fears or concerns about participating? How quickly did you start after you entered the program?
2. What kinds of things did you learn in the group sessions, if anything? What seemed to be the most helpful? The least helpful?
3. How many times did you go to the group sessions? Did you always go together, or sometimes only one of you?
4. If you missed some weeks, what were the major reasons? Did you have problems with transportation, child care, or inconvenient hours?
5. What was your relationship with the group facilitators? What qualities do you think are important for group facilitators to have?
6. Did you ever get any special gifts or prizes when you went to group sessions? How important were they to you as a reason for going?

D. WHAT ELSE DID YOU GET FROM THE PROGRAM? *(15 minutes)*

1. Other than the people who led the group sessions, was there a particular person connected to the program who was your main contact?
2. If so, what was that person's job? How often did you see or talk to that person?
3. What kinds of things did you and that person talk about?
4. What kinds of issues did he/she help you with? How did she/he help you?
5. What was your experience with other couples in your group? Do you see participating with other couples as a benefit or disadvantage of the program?

E. VALUE OF PROGRAM/SERVICES *(15 minutes)*

1. Do you think the [BSF program] has helped you? If so, in what way? Has it helped you as individuals? As a couple? In what ways?
2. Has this program been of any importance for your child or children? In what way?
3. Is there anything about the program that you would like to be different? Were there or are there any topics or issues you wish the program would cover, talk more about, or help you with?

IV. CONCLUSIONS AND WRAP-UP *(10 minutes)*

Summary of Key Points (What I'm hearing from you is...)

Does anyone have any other thoughts or comments about programs like BSF?

Thank the participants.

Explain and distribute short (anonymous) questionnaire.

[Hand out incentive payments and have participants sign receipts]

**CLIENT FOCUS GROUP
PARTICIPANT INFORMATION FORM**

Please complete this form. The information will be used only to summarize participant information at this meeting. Your name and address are not needed.

LOCATION _____ DATE _____

1. I am a Male Female
2. My age is: less than 20 years 31-40 years 56 years+
 21-30 years 41-55 years
3. My ethnic background is: (check all that apply)
 Caucasian/white Hispanic/Latino Asian/Pacific Islander
 African-American/black American Indian Other(specify) _____
4. My marital status is:
 Never married Married/with partner Separated
 Divorced Widowed
5. I live with my partner and child:
 All of the time Some of the time Little or none of the time
6. Number of children (under age 18) living with me: _____
7. The highest education I completed was:
 Grammar/Elementary School Tech/Vocational School
 Junior High/Middle School Community College
 High School or G.E.D. University (4 year)
 Graduate school
8. I am currently:
 not employed
 working less than 20 hours per week
 working more than 20 hours per week
9. I am currently:
 receiving TANF (welfare) benefits
 not receiving TANF benefits
10. I enrolled in the [BSF] program in about _____
Month/Year

THANK YOU FOR YOUR HELP!

APPENDIX C

GUIDE FOR BRIEF TELEPHONE CALLS WITH PROGRAM DROPOUTS

APPENDIX C

BUILDING STRONG FAMILIES PROJECT GUIDE FOR BRIEF TELEPHONE CALLS WITH PROGRAM DROPOUTS

NOTE: This is a guide, not a script. Interviewer may somewhat vary topics and probes to better understand each respondent's particular opinions.

I. Introduction (2 minutes)

A. Interviewer introduces self; explains purpose and scope of call

Calling from Mathematica Policy Research. We're trying to improve a program you were recently invited to, called [*name of local BSF program*], and I'd like to hear your opinions about it, even if you didn't actually participate in it. It should take about 6 to 7 minutes.

B. Confidentiality

Whatever information you share with me will be kept confidential and private, and used only to summarize people's opinions. We will not use any names or quote anyone.

II. Discussion Topics and Probes (5 minutes)

A. Presentation of program

How was the program presented to you and your partner?

Probes: Were you together at the time? Did you have any fears or concerns about participating? Were you excited were you when you first heard about the program? Did you and your partner discuss attending the program? Did you both have concerns, or was it mostly just one of you?

B. Attendance at group meetings

Did you attend any of the group meetings?

If yes, probe: *How many did you attend? What did you think of the experience? What did you like and not like about it? Why did you stop going to group?*

If person never attended a group meeting, probe: *What is the reason you never went to any group meeting?*

If respondent has difficulty articulating the reason for discontinuing attendance or the reason for never attending at all, possible probes include:

For example, would you say it's because ...

You and your partner broke up?

You or your partner's schedule changed?

You had to move out of the area?

You lost interest?

Someone was sick?

You thought the program wouldn't help you?

You or your partner didn't like the program? If so, what didn't you like?

C. Communication with the program about reasons for not attending, or for dropping out

Did either you or your partner talk to a program representative about your reasons for not attending?

If yes, probe: Did they call you to find out why you weren't coming, or did you call them?

Did the program try to address the problem with you? If so, in what way?

III. Conclusion and Wrap-up (1 minute)

Is there anything else you'd like to share with me about your experiences with this program?

Thank you very much for your time.

APPENDIX D

BSF INTAKE FORMS

Agency Family ID _____

BUILDING STRONG FAMILIES

MPR ID: _____

Date: ___/___/___

MOTHER ELIGIBILITY CHECK LIST

OMB Control No: 0970-0273

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]

Agency Family ID _____

BUILDING STRONG FAMILIES

MPR ID: |_|_|_|_|_|_|_|_|_|_|_|_|_|_|

Date: ___/___/___

FATHER ELIGIBILITY CHECK LIST

OMB Control No: 0970-0273

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]



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

Agency Family ID _____

MPR ID: |_|_|_|_|_|_|_|_|_|_|

Date: _/~/__

BUILDING STRONG FAMILIES

OMB Control No: 0970-0273

- Mother Father
 English Spanish

BASELINE INFORMATION FORM

Expiration Date: 03/31/2008

Please Print Clearly. Use pen only.

1. _____
First Name Middle Initial Last Name

1a. _____
Maiden Name *(If applicable)*

2. _____
Address Apt. #

City State ZIP Code

3. None Nickname(s): _____

4. Social Security Number:
|_|_|_|_|-|_|_|_|_|-|_|_|_|_|

5. Date of Birth: |_|_|/|_|_|/|_|_|_|_|
 Month Day Year

6. Sex: 1 Male 2 Female

7. CHECK BOX IF RESPONDENT DOES NOT HAVE A PHONE AT HOME THEN **GO TO Q.7b**

Home Phone Number: (|_|_|_|)-|_|_|_|_|-|_|_|_|_|
 Area Code

7a. Whose name is that phone listed in?

1 CHECK BOX IF IN RESPONDENT'S NAME

First Name Last Name

7b. CHECK BOX IF RESPONDENT DOES NOT HAVE A CELL PHONE THEN **GO TO Q.8**

Cell Phone Number: (|_|_|_|)-|_|_|_|_|-|_|_|_|_|
 Area Code

8. Is there another phone number where you can be reached?

No → GO TO Q.9

(|_|_|_|)-|_|_|_|_|-|_|_|_|_|
Area Code

That number belongs to (CHECK ONE):

- | | |
|-------------------------------------|---|
| 1 <input type="checkbox"/> Friend | 4 <input type="checkbox"/> Landlord |
| 2 <input type="checkbox"/> Relative | 5 <input type="checkbox"/> Employer |
| 3 <input type="checkbox"/> Neighbor | 6 <input type="checkbox"/> Other <i>(Specify)</i> _____ |

9. Do you consider yourself Latino or Hispanic?

- 1 Yes
0 No
d Don't know
r Refused

10. Do you consider yourself:

(CHECK ALL THAT APPLY)

- 1 White
2 American Indian or Alaskan Native
3 Black/African American
4 Native Hawaiian or Other Pacific Islander
5 Asian
d Don't know
r Refused

11. What is your primary language?

(CHECK ONE)

- 1 English
2 Spanish
3 Other *(Specify)* _____
d Don't know
r Refused

12. Do you have a high school diploma, a GED, or a high school equivalency certificate?

(CHECK ONE)

- 0 None
1 High school diploma
2 GED or high school equivalency certificate
3 Other *(Specify)* _____
d Don't know
r Refused

Information on Pregnancy and Birth

13. INTERVIEWER: IS MOTHER CURRENTLY PREGNANT?

- 1 Yes
0 No → GO TO Q.15

14. When is your baby due?

|_|_|/|_|_|/|_|_|_|_|
Month Day Year

- d Don't know → GO TO Q.16
r Refused →

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

BUILDING STRONG FAMILIES

MPR ID: |_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|

CONTACT INFORMATION FORM

OMB Control No: 0970-0273

No Friends/Relatives Refused

Expiration Date: 03/31/2008

1. NAME (FIRST, MIDDLE INITIAL, LAST):

2. AGENCY FAMILY ID NUMBER:

CONTACT INFORMATION - RELATIVES AND FRIENDS

INSTRUCTIONS: In the space below, please provide the name, address, and phone number of three close relatives or friends who are likely to know how to contact you a year and a half from now. We will only contact these people if we are unable to contact you directly. Please complete all three boxes if possible.

1. NAME AND ADDRESS OF RELATIVE OR FRIEND

NAME: Last _____ First _____ Middle _____

ADDRESS: Number _____ Apt. No. _____

City _____ State _____ ZIP Code _____

How is this person related to you? 1 mother 2 father 3 sister/brother 4 friend 5 other (*Specify*) _____

TELEPHONE: Home (_____) - _____ - _____ Whose name is this phone listed in?
Area Code Number
Cell (_____) - _____ - _____
Area Code Number
Work (_____) - _____ - _____
Area Code Number
Email address: _____

2. NAME AND ADDRESS OF RELATIVE OR FRIEND

NAME: Last _____ First _____ Middle _____

ADDRESS: Number _____ Apt. No. _____

City _____ State _____ ZIP Code _____

How is this person related to you? 1 mother 2 father 3 sister/brother 4 friend 5 other (*Specify*) _____

TELEPHONE: Home (_____) - _____ - _____ Whose name is this phone listed in?
Area Code Number
Cell (_____) - _____ - _____
Area Code Number
Work (_____) - _____ - _____
Area Code Number
Email address: _____

3. NAME AND ADDRESS OF RELATIVE OR FRIEND

NAME: Last _____ First _____ Middle _____

ADDRESS: Number _____ Apt. No. _____

City _____ State _____ ZIP Code _____

How is this person related to you? 1 mother 2 father 3 sister/brother 4 friend 5 other (*Specify*) _____

TELEPHONE: Home (_____) - _____ - _____ Whose name is this phone listed in?
Area Code Number
Cell (_____) - _____ - _____
Area Code Number
Work (_____) - _____ - _____
Area Code Number
Email address: _____

