

Figure 1. Ways to Be Involved in Parenting (Adapted from Palkovitz, 1997)

Communication

- C Listening
- C Talking
- C Writing notes
- C Making Scrapbook
- C Calling on phone when away
- C Expressing love
- C Expressing concerns
- C Expressing concerns
- C Expressing forgiveness
- C Expressing valuing
- C Showing genuine interest in day, friends, interest, feelings, thoughts, aspirations, etc.

Teaching

- C Advising
- C Role modeling
- C Problem solving
- C Disciplining
- C Commenting on child's or parent's progress
- C Teaching spiritual development, praying together, etc.
- C Fostering independence
- C Providing long-term perspective
- C Giving choices and respecting selections made
- C Assisting in gaining new skills (teach to ride bike, swim, drive, balance checkbook)
- C Scolding
- C Giving chores
- C Teaching about own and other cultures
- C answering questions
- C Encouraging interests, hobbies
- C Doing taxes

Monitoring

- C Friendships
- C Dating partners
- C Safety
- C Whereabouts
- C Health
- C Grooming
- C Schoolwork
- C Checking on sleeping child
- C Going to parent/teacher conferences
- C Overseeing TV or movie watching and music listening to
- C Rides to and from places

Thought Processes

- C Worrying
- C Planning
- C Dreaming
- C Hoping

- C Evaluating
- C Praying for child
- C "Being there"

Errands

- C Driving
- C Picking up items
- C Making calls for

Caregiving

- C Feeding
- C Bathing
- C Clothing
- C Reaching things for children
- C Caring for sick child
- C Tucking into bed

Child-Related Maintenance

- C Cleaning
- C Repairing
- C Laundering
- C Ironing
- C Cooking

Shared Interests

- C Developing expertise
- C Providing for instruction
- C Reading together

Availability

- C Attending events
- C Leading activities (scouting, PTA, etc.)
- C Spending time together
- C Allowing/encouraging child to enter into leisure activities
- C Baking cookies for child's activities

Planning

- C Birthdays
- C Vacations
- C Education
- C Holidays
- C Saving for future
- C Scheduling time with friends

Shared Activities

- C Exercising
- C Shopping
- C Picnicking
- C Movie going
- C Parks
- C Eating meals
- C Playing together
- C Building forts
- C Celebrating holidays
- C Working together

Figure 1. Ways to Be Involved in Parenting (Adapted from Palkovitz, 1997)

- C Dancing together
- C Chaperoning events

Providing

- C Financing
- C Housing
- C Clothing
- C Food
- C Medical Care
- C Education
- C Safe transportation
- C Needed documentation (birth certificates, social security, etc.)
- C Help in finding a job
- C Furnishings
- C Developmentally appropriate toys or equipment
- C Extracurricular activities
- C Alternative care
- C Insurance

Affection

- C Loving
- C Hugging
- C Kissing
- C Cuddling
- C Tickling
- C Making eye contact
- C Smiling
- C Genuine friendship with child
- C Showing patience
- C Praising

Protection

- C Arranging environment
- C Monitoring safety
- C Providing bike helmets, life jackets, etc.

Supporting Emotionally

- C Encouraging
- C Developing interests

Figure 2. An Expanded Conceptualization of Parent Involvement (Adapted from Palkovitz, 1997)

Panel A: Domains Of Involvement	
<i>Domain</i>	<i>Definition/Examples</i>
COGNITIVE:	Reasoning, planning, evaluating, monitoring
AFFECTIVE:	Emotions, feeling, affection
BEHAVIORAL:	Overtly observable manifestations of involvement, such as feeding, talking to, teaching, etc.
Panel B: Simultaneously Occurring Continua	
<i>Dimension</i>	<i>Range</i>
TIME INVESTED:	Inappropriate-highly appropriate
DEGREE OF INVOLVEMENT:	None, low, moderate, high
OBSERVABILITY:	Covert-overt
SALIENCE OF INVOLVEMENT:	Low-high
DIRECTNESS:	Direct-indirect
PROXIMITY:	Far away-in same room/proximity-touching
Panel C: Factors Moderating Involvement	
<i>Factor</i>	<i>Description</i>
INDIVIDUAL/PERSONALITY:	Personal Psychological well-being Subjective experience/evaluation Motivation Priorities/Commitments
INTERACTIONAL CONTEXT/PROCESS:	Developmental/Life Course Trajectories Family process Gatekeeping Interaction with other men/friends Child Custody Policies Welfare Reform Father Related Policies Public Policy and Business Practices Socio-Cultural Factors (e.g., norms about stepfathers)
MESO-MACRO CONTEXTS:	Public Policy Law Business Practice Cultural Ideologies

CHAPTER FIVE

METHODOLOGICAL ISSUES IN IMPROVING DATA ON FATHERS

Chapter 5: Report of the Working Group on the Methodology of Studying Fathers

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Introduction

The well-known changes in American families over the past few decades have greatly increased the percentage of children who do not reside with their fathers. In 1970, 85 percent of all children under 18 were living with both their parents, whereas by 1995, only 69 percent were doing so. Another 23 percent of children lived with their mother only, 4 percent with their father only, and 4 percent lived with neither parent (U.S. Bureau of the Census, Department of Commerce).

As the composition of families has changed, much attention has focused on the roles of absent fathers in their children's lives. At first the focus was on the economic contributions of these fathers. In recent years, public concern has been wide-ranging, encompassing the psychological, social, educational, and health consequences of absent fathers. Moreover, as men's family roles have changed, the family and fertility behavior of all fathers, present as well as absent, has become of greater interest to researchers. Yet social scientific evidence on the process of becoming a father and on what fathers do is limited.

In addition, as parenthood has become decoupled from marriage, the reproductive careers of men have become more distinct from the reproductive careers of women. Men's sexual activities encompass a greater number of partners over the life course than was the case a few decades ago. Because of the increases in divorce and childbearing outside of marriage, men are more likely to have had children by two or more women than was the case a generation or two ago. The rise of cohabitation has led to informal partnerships that are sometimes of short duration.

To be sure, these trends have affected women similarly. But for a number of reasons, men's reproductive careers have the potential to be more complex than women's. Men are not limited by pregnancy and they typically do not provide primary care for young children; moreover, their rates of remarriage after divorce are higher than women's (Cherlin, 1992). Consequently, they report more sexual partners than do women, (Laumann, Gagnon, Michael, and Michaels, 1994) and they are more likely to produce children with multiple partners than are women. Since they are not likely to be living with children from previous unions, they may underreport the existence of those children. It is, therefore, a greater challenge to obtain complete information about sexual, reproductive, and union histories of men than of women.

What is more, we know much less about becoming and being a father than we do about becoming and being a mother. Since 1955, American demographers have fielded a series of surveys of the fertility of women. In 1973, the Federal government took over responsibility for the series, which it entitled the National Survey of Family Growth. It comprises a complex and sophisticated survey of women of childbearing age. Recent waves have asked about the men in the women's lives. But it does not include interviews with men.

In fact, the overwhelming majority of social scientific studies of children's family lives have focused on mothers rather than fathers, even when the fathers were present in the home. Perhaps the fundamental methodological problem that we face in studying fathers is that the household survey, the basic data gathering tool for demographic and behavioral science research on the family, the labor force, and fertility, was designed based on assumptions that no longer hold. When the standard household survey was being developed at mid-century, it was reasonable to assume that a family lived in just one household. The divorce rate and the percentage of births outside of marriage were far lower than they are as we approach the twenty-first century. Thus, it was reasonable to assume that complete and accurate information about a family unit could be obtained from a single household.

However, social change has undermined this assumption. Increasingly, families extend across the boundaries of households, so that the standard survey, focused on the members of one household, is no longer a sufficient method for obtaining complete and accurate information about family relationships. It is obvious that the standard household survey is deficient in providing complete and accurate information about non-resident fathers. It is less obvious but still true that the standard survey—focused as it is on mothers and children in the household—is deficient in providing a complete sexual, reproductive, and union history of men in the household.

As a result, best-practice studies of fathers and families have already moved beyond the standard survey practices of mid-century. Currently, a number of methodological innovations in survey research are being developed and tested. We will describe many of these below. This line of methodological research is still new, and much more work is needed. We applaud this line of research and call for its expansion.

Survey-based studies, however, are inherently limited in the kind of information they can provide. Surveys are best used as hypothesis-testing mechanisms after a general understanding of a topic has been obtained. But when little is known about the behavior of interest, as is the case with father-child relations, surveys cannot provide a full picture. Rather, more intensive studies are necessary as hypothesis-generating mechanisms. These studies include the intensive observation that developmental psychologists specialize in and ethnographic studies of the kind practiced in anthropology and sociology. We endorse further use of these methods also.

Other Working Groups at the Fatherhood Conference being sponsored by the National Institute for Child Health and Human Development will address the substantive issues concerning fathers in considerable detail. Underlying these substantive questions are important methodological issues that must be addressed before we can have confidence in data to be collected on fathering and fatherhood. The Working Group on the Methodology of Studying Fathers was established to address these issues, in consultation with other working groups.

The organization of this paper is as follows. Section 1 reviews current studies that provide some information about fathers or that have interesting methodological approaches that yield insights into improving data on fathers. Section 2 comprises a lengthy examination of a number of methodological issues that are related to the quality and characteristics of data on fathers. Section 3 examines the issue of how new data collection should be undertaken. Section 4 presents our recommendations.

Current Activities

Before discussing current methodological issues, let us briefly summarize some of the major national surveys with protocols that are of methodological interest. While the debate evolves in the statistical and research communities as to what information is needed and how it needs to be collected, important initiatives are being made in both publicly and privately sponsored surveys. A brief overview of major activities and studies that are currently the primary sources of information on fathers serves to inform the discussion about further advances that may be required.

Studies of Methodological Interest (listed alphabetically):

Add Health. Add Health, a national longitudinal study of adolescent health, is a comprehensive study of the health and health behaviors of adolescents that has been uniquely designed to measure the contextual factors that influence these outcomes. Outcomes to be examined include behaviors related to fertility as well as a broad range of other health-related behaviors and outcomes; antecedents include measures of adolescents' relationships with their resident and nonresident fathers. The study features a longitudinal, multi-level design with independent measurement at the individual, family, peer group, school, and community levels; further, the study is designed to provide information from both partners to romantic relationships in a substantial number of cases. The basic sample is drawn from a stratified probability sample of 80 high schools and 80 feeder schools (middle or junior high schools) nationwide. Information on peer networks, nonsensitive health behaviors, and school climate is collected in the schools from all students attending grades 7-12. Subsequent interviews are conducted in individuals' homes with a subsample of 20,000 adolescents drawn from the school rosters and with a parent of each adolescent. Adolescents are re-interviewed after one year. All adolescent interviews are conducted with a laptop computer, with sensitive portions of the interview self-administered via audio-CASI.

Early Childhood Longitudinal Study (ECLS). The ECLS will be a national, longitudinal cohort of kindergartners in fall 1998, to be followed once or twice a year through at least fifth grade. The study is sponsored by the National Center for Education Statistics. The household roster will obtain some information about persons who have lived with the child at some point in the past for four months or more. Detailed interviews will be conducted with the child, the mother, teachers, and school

administrators over the life of the study. There are no current plans to interview the fathers or to seek to find absent parents and interview them.

National Adult Literacy Study (NALS). NALS, sponsored by the National Center for Education Statistics and conducted in 1992, is one of the few national sample surveys that combined a household sample of the noninstitutionalized population with a national sample of inmates in state or federal prisons. Nearly 1,150 inmates in 80 federal and state prisons were interviewed and tested for their literacy skills. These respondents were included in both a separate data set and in national population estimates. This proved an effective strategy for providing a more comprehensive look at the literacy skills of a larger segment of the population. The inclusion of inmates may help to address undercoverage in surveys of fathers.

National Household Education Survey (NHES). The NHES is a random-digital telephone survey that uses computer-assisted telephone interviewing technology to collect data on high priority topics that cannot be addressed adequately through school- or institutional-based surveys. The 1996 NHES included a parent involvement component that asked the parents/guardians of 16,910 kindergartners through 12th graders questions about mothers' and fathers' involvement in their children's schools. The survey also asked about children's contact with nonresident fathers and about the involvement of these fathers in their children's schooling. Responses were provided by the resident parent, usually the mother. The sample included 5,440 children who had a nonresident father.

National Longitudinal Survey of Youth, 1997 (NLSY97). The NLSY97 will attempt to roster all people living in the residence of the sample youth as well as relatives who live outside of the household including biological, adoptive, and step-parents; full, half, and step siblings; non-resident children of parents in the household, and the other parent of any such children. Information solicited about these people will depend on the relationship of the sample youth to the person. While address information will be obtained when possible for absent parents, there are currently no firm plans for follow-up with absent parents. The survey will include a parent interview in the initial year, and could have additional parent surveys in later years.

National Survey of Adolescent Males. Since 1988, three waves of this study have interviewed young men about their sexual, contraceptive, and HIV-prevention behaviors. In addition to making substantial contributions to information and research on male fertility-related behaviors, this study has made two particular methodological contributions. First, it has demonstrated the feasibility of interviewing young men on these topics by obtaining good levels of response in both initial and followup interviews. Second, it has conducted an experimental assessment of audio-CASI methods for obtaining self-reports of sensitive behaviors. Initial findings indicate that audio-CASI methods increase self-reports of same-sex sexual behavior significantly over paper-and-pencil self-report methods. The most recent round of this study, conducted in 1995,

included followup with the original panel interviewed in 1988 and 1991, as well as interviews with a new nationally representative sample of 1729 males age 15-19.

National Survey of Families and Households (NSFH). The NSFH is a national longitudinal survey addressing a broad range of topics related to family life. The first two rounds were conducted in 1987-88 and 1992-94. Within each of approximately 13,000 households, a primary respondent was selected and interviewed. The same interview was administered regardless of the respondent's gender. Much of the interview focused on children and parenting. Some couple data was obtained. Questions about the first husband/wife included whether he/she had been married before and/or had children at the time of the union. Union and birth transitions between waves is quite detailed, but there is limited information on nonresident unions. Both waves include a full range of relationship indicators for resident unions. Attitudes toward union formation and dissolution (both normative and personal) are included. Dating, sexual experience, and early family formation events are available for older focal children (age 13-18 in 1988, 18-23 in 1993), and the next younger group of focal children provide information on dating and sexual experience at the second wave.

National Survey of Family Growth (NSFG). The NSFG is a periodic survey of U.S. women ages 15-44 that has been conducted by the National Center for Health Statistics about every 5 or 6 years since 1973. The most recent cycle was conducted in 1995, and a public use data file has been released. The survey used innovative data collection techniques, including audio computer assisted self-interviewing (ACASI) to obtain detailed information about the respondent's life. The NSFG also asked about the men in the respondent's life. The methodological importance of this study is, in part, that it found that both incentives and the ACASI technique increased reporting of sensitive events and behaviors (e.g. abortions). In this application, the incentives promoted higher response rates and more than paid for themselves, evidently by creating a reciprocation between the respondent and the survey administrator. In addition, test interviews and expert analyses in the NCHS Questionnaire Design Research Laboratory and by Research Triangle Institute, the survey contractor, were instrumental in developing the NSFG life history calendar and procedures, as well as resolving many other questionnaire issues (Peterson and Schechter, 1995).

National Survey of Men. Although this 1991 study of sexual behavior and condom use among 20-39 year old men in the United States did not have a strong focus on fertility issues, it provides rare data on adult males' reproductive behaviors and sexual relationships. Thus, for up to 8 non-marital relationships that lasted 30 days or more since January 1990, the study collected information on pregnancies that occurred within each relationship, and the planning status and outcome of each (up to 3). It also collected information about the partners' demographic characteristics, and about sexual and contraceptive behavior in the relationship. The study cast a wide net in looking at relationships, including nonsexual relationships, nonmarital sexual relationships, and marriages and cohabitations. Some studies are underway using these data, and they may

provide a valuable resource for understanding links between relationship characteristics and fertility risk. These data are unique because they focus on an older population of men that has received insufficient study in the past.

Panel Study of Income Dynamics (PSID). The PSID is a longitudinal study following an initial cohort of 5,000 families and their offspring since 1968. In 1997, the PSID will administer a Parent-Child Supplement, to include approximately 3,200 children under age 12. Respondents will include up to two children from about 1900 households, the primary caregiver of each child (e.g., biological, adoptive, step, or foster mother), the other caregiver of each child (e.g., the spouse of the primary caregiver or grandmother of the child), absent fathers, elementary or middle school teachers, preschool or day care teachers, in-home day care provide's, elementary or middle school administrators, and preschool or day care center administrators. Priority rules have been developed for defining order of inclusion in each of these categories. The different respondents will provide information through assessments, time diaries, and questionnaire booklets about the child and the household. If the biological father lives outside the household, the PSID will attempt to interview him, although it is not yet clear how difficult it will be to locate the absent fathers. In any case, the sample of absent fathers is likely to be small. The primary caregiver is also to be asked a battery of questions about the child's involvement with the absent father, so some data will be available from this perspective.

Survey of Income and Program Participation (SIPP). SIPP is a longitudinal household panel study conducted by the Bureau of the Census, with short- and long-term longitudinal components. It includes modules on child well-being, child care, child support, as well as information on income contributions and reciprocity within the household and both to and from non-household members.

Surveys Conducted by the Bureau of Justice Statistics (BJS). BJS sponsors numerous surveys of inmates in jails, prisons, halfway houses, or probation agencies. Surveys such as the Survey of Adults on Probation (SAP), the Survey of Inmates in State Correctional Facilities (SISCF), the Survey of Inmates in Federal Correctional Facilities (SIFCF), and the Survey of Inmates in Local Jails (SILJ) generally achieve high response rates (with the exception of the SAP). Although most of the content is focused on criminal justice issues, survey items also include basic demographics, parental characteristics, questions about alcohol and drug use, and similar topics. More than ninety percent of inmates are male, and the great majority of these men are fathers. Questions about father involvement ask about the children's living situation before incarceration and currently, contact with children, and sources of economic support.

Methodological Issues

This section provides a review of several methodological issues related to gathering information on fathers and fatherhood. These issues have differential impact

on studies of varying design, and so they are not insurmountable or uniformly challenging in all the studies that may be recommended for examining fathering. The methodological issues are loosely clustered into three groups: population identification, data collection procedures, and study designs. The impact of these issues for different types of studies is explored in more detail in the following section.

Population Identification:

Undercount. Fathers who are not located or are not included in the survey process at all are undercounted in large scale sample surveys. This includes the traditional undercount by the Decennial Census that affects the coverage of the sampling frame. Undercount rates are higher for men than for women, and for minorities than for whites and Asians. The undercount varies by age and race combined, ranging from 7 to 17 percent for black men. It is also related to household structure and relationships. Undercount rates are higher for unrelated persons, such as roomers, roommates, and men who are not married to the household respondent. It also appears to be greater for never-married fathers than for previously -married fathers. In addition, men in the military, prisons, jails, or other institutions are typically excluded from household surveys.

One promising technique for reducing the undercount in household surveys is to use expanded rosters with multiple probes. For example, the Census Bureau undertook an experimental “Living Situation Survey” in 1993 (Sweet, 1994) in which it oversampled minorities and renters, two sources of the undercount of fathers. The household roster section included a battery of roster probes. The first question was, “Who stayed here last night?” Another 3 percent of usual residents were elicited by the question, “Who lives here but didn’t stay here last night?” For occasional rather than usual residents, a useful probe was, “Since [reference date], who lived or stayed here for one or more nights?” The survey identified an average of 1 additional person per household, and the gains were particularly large for black and Hispanic males age 18 to 29. Cantor and Edwards (1992) also used a similar list in experimental rosters trying to reduce within-household undercoverage in SIPP. (see Appendix L)

Other studies are planning dual rosters. As noted, the NLSY97 will include a household roster and a second roster of relevant individuals who live elsewhere, such as non-custodial parents, non-resident children, and so forth.

In future studies, it might be useful to develop a typology of living arrangements. Not only would this help with the creation of a list of terms and probes, but it also would move survey researchers beyond thinking in terms of traditional families. Work by anthropologists, such as Ruth McKay (McKay, 1993), would be useful here (Martin and de la Puente, 1993). Particularly important would be estimating the proportion of households falling into each category. This information would help in designing samples. Not requiring full names on rosters might improve coverage (Kearny, Tourangeau, Shapiro, and Ernst, 1993). Another technique which could be used in a

limited way is network analysis. It is a useful way to explore extended families and/or complicated living or economic dependency arrangements (Knoke and Kuklinski, 1982). Unobtrusive observations of living patterns also might be useful.

The use of administrative records will help reduce not only undercoverage but also undercounting. Household members not identified by respondents can be found through these records. Absent family members, especially those institutionalized or homeless, also could be identified. Matches to Census records, already being done by Census and BLS, may be another way of estimating the number and types of people missed in our surveys. This will provide some estimate of the magnitude of the problem relative to the population as a whole (Couper and Singer, 1996). Different administrative lists can be used in conjunction with area frames in constructing multiple frame designs (Groves, 1989).

Unit nonresponse, especially in cross-sectional surveys, can result in both undercoverage and undercounting. The number and characteristics of household members, including absent parents and children, will not be known. To the extent these households are not missing at random, estimates of counts will suffer.

The interviewer's role in undercoverage and undercounting should be addressed. Vacancy checks could be conducted not only to find missing households, but also to evaluate interviewer reports (Clark, Kennedy, and Wysocki, 1993). The eligibility rates (both in terms of households and persons) obtained by individual interviewers could be compared to one another or to historical estimates. Techniques for persuading reluctant households should be explored, including ways for interviewers to introduce themselves and the survey to respondents (Groves, 1989). If the interviewer is effective at representing himself or herself and the survey, it will go a long way toward reducing the suspicions or concerns of reluctant respondents. In addition, the effects of type of nonresponse, noncontact versus refusal, need more study (Groves, Cialdini, and Cooper, 1992).

One way to reduce the effects of undercoverage and undercounting is weighting adjustment; however, this assumes a model which is not sensitive to nonignorable nonresponse (Raghunathan, Groves, and Couper, 1996). Not only do these models incorporate demographic information based on geography, but they also take into account the type of nonresponse. This work and other work being done jointly by Census and BLS also consider another area for research-- the effects of different patterns of longitudinal nonresponse.

Underreporting. Absent male parents tend to underreport their parental status to a large extent even though they are included in the survey interviews. In one survey, the National Survey of Families and Households, this accounts for more than half of the missing fathers (McLanahan and Garfinkel, 1996). Disparities between the number of women with previously-disrupted marriages who have children from those marriages at

home and the number of men with previously-disrupted marriages with children living elsewhere are often great (Cherlin, Griffith, and McCarthy, 1980). Some studies have found the shortage of non-resident fathers to be largely confined to African Americans, though the factors contributing to this shortage include institutionalization (27 percent), undercount (53 percent), and underreporting (20 percent) (Sorensen, 1996). Beyond underreporting of fatherhood itself, there is also an issue of misreporting child support payments. In unmatched samples, it appears that fathers are much more likely to report giving child support than mothers are to report receiving it (Seltzer and Brandreth, 1994). But in matched samples, when both parents knew the sample was matched, reports were sometimes similar, but not always so (Braver, Fitzpatrick and Bay, 1991; Braver, Wolchik, Sandler, Fogas, and Zvertina, 1991; Smock and Manning, 1996; Sonenstein and Calhoun, 1990). In most surveys, the percentage of non-resident fathers who report providing support is substantially greater than the percentage of resident parents who report receiving it. The extent to which the undercount of adult males interacts with this problem is not known; some researchers presume that fathers who are included in studies are more likely to be paying support, leading to an overstatement of the frequency of providing support. (see Appendix K)

Underreporting of children and of other sensitive behavior may be reduced through technological advances in survey research. For example, the ACASI technology mentioned earlier has boosted reports of abortion in tests of women conducted by the National Center for Health Statistics; and so did paying a modest incentive (Mosher, Pratt, and Duffer, 1994). The ACASI interview involves giving the respondent the interviewer's laptop and a set of earphones. The respondent hears questions on the earphones which also appear on the screen. She or he then answers the questions by pressing a key on the laptop, so that the interviewer cannot hear or see what she is doing. In a pretest in 1993, 14 percent of women who received neither a payment nor the ACASI interview reported an abortion. Twenty-two percent of those who received a \$20 payment but no ACASI reported an abortion. Twenty percent of those who received the 10 minute ACASI interview but no payment reported an abortion. And 30 percent of those who received both the \$20 payment and the ACASI interview reported an abortion. Technology such as this should be tested and developed further for men.

Changing Family Structures. To date, most large scale sample surveys have reflected more traditional family models with parents living in marital situations within the same households or parents living singly. It has been less common for surveys to take into account multiple family forms, including cohabiting, unmarried couples; single parent families with nonresident, never-married fathers; families with other relatives playing important parenting roles in children's lives; and families with extended networks beyond households. During the life cycle of a family, the family type may well change with important consequences for the children. Current means of collecting information on family structure and relationships between family members, fathers outside households, and family networks are inadequate to help researchers and policymakers understand the complexity of fathering roles as they have evolved.

In multi-family households, CAPI methodology allows for creating spinoff cases with new family rosters, and this is now used in CPS. The same technique is available in CATI (Tucker, Casady, and Lepowski, 1991), although it can be more cumbersome. Spinoff cases could be created for parents or children not living in the household. These people would be linked to the household by special relationship codes in the original roster. Spinoff cases might also be used in longitudinal surveys to follow movers, similar to what is being done in SIPP.

Research to develop or improve any of these procedures will require large and/or targeted samples. Either census block or tract data might be used, but a more efficient method would be administrative records. The use of administrative records, however, raises issues of confidentiality and privacy.

Sampling Strategies. Although research on fathers and fatherhood should focus on all fathers, researchers and policy makers are interested as well in subsets of fathers. Frequently interest is focused on men who are relatively rare in the population, even though they are of increasing interest and may even be increasingly common. This would include, as examples, absent fathers in different subpopulations (e.g., by race or by age of children), fathers in different employment statuses, or stepfathers. They may be “rare” because they are a small percentage of fathers, or because fathers may exist in a particular status for only a relatively short time in their own or in the lifetime of their family. Problems of adequate sample size are exacerbated in analyses that need to cross-classify by race/ethnicity, socioeconomic status, age and gender of the child, or various configurations of families. Sampling strategies that sample children or sample parents, and that include institutionalized populations have different strengths and weaknesses. If children are sampled directly, coverage of children should be improved with concomitant reductions in coverage bias. Since most children live in households, there is nearly always an adult who can report on the child’s contact with present and absent parents. Even proxy reports would provide at least minimal information. However, sampling parents may lead to higher rates of successfully locating and interviewing absent fathers directly, without relying on obtaining locating information in the child’s household. Direct interviews with absent fathers could reduce bias in reports of certain types of information, although it is not yet fully established what types of information are most subject to such biases. Combined sampling approaches may hold the most promise for in-depth studies of parenting, although the ramifications of these for study design have not yet been fully explored.

One of the basic problems is the large sample size needed to arrive at an eligible sample which can provide enough statistical power. Either this will require money or the ability to piggyback on other research or find other cost effective approaches. In the case of a large, dedicated sample, mode of administration will be an issue, and it is unlikely that a personal visit will be practical. A telephone survey will not include those without telephones, unless a dual-frame design is used (Groves and Lepkowski, 1985). A mail survey would be difficult to administer, and the response rate would be low. Research

which investigates the cost and error implications of the choice of mode would be useful (Groves, 1989). More efficient telephone sample designs have been developed in recent years which take advantage of list-assisted methods and matching to census public use files and administrative records, and these should be explored (Mohadjer, 1988). These new designs would be particularly useful for the targeting of specific subpopulations to reduce the cost of screening for eligibility.

The alternative of using ongoing surveys also may be attractive. Since these surveys vary according to mode and sample design, they could be used for different purposes. The new NLSY design will screen households for children and identify not only present but also absent parents. The National Immunization Survey has hundreds of thousands of screened numbers with some information about the households found. Many of these households have not been burdened with long surveys (Abt Associates, Inc., 1994). It is possible that a CPS supplement could be used for gathering information on fathers and linked to the other CPS data for the households. If the American Community Survey goes into production, it might serve as a data collection vehicle on a periodic basis.

Another problem which must be faced is the following of movers in longitudinal surveys, and such an operation will be important for measuring long-term outcomes. Much can probably be learned from the NLSY, SIPP, and other surveys which attempt to track respondents across significant periods of time. For example, SIPP has issued a memorandum detailing the most effective tracking techniques (Allen, 1994). However, they have not exclusively focused on fathers, a group which might present a particularly difficult challenge. Again, administrative records might be explored as a way of following families that separate. Finally, there are a number of weighting issues to consider. How are families which split apart weighted, and attrition in the longitudinal surveys will require using methods for censored data (Little and Rubin, 1987; Wiley and Sons; and Amemiya, 1985).

Within household sampling is of some concern if more than one child is involved or there are children with more than one father. The actual selection may not be difficult, but issues might arise if the person selected does not actually live in the household or is uncooperative compared to others in the household. Furthermore, a parent actually could have children from different generations, and the relationships may be very different.

Institutional Populations. Typically, large scale national surveys of the population are of the civilian, noninstitutionalized population only. Because of the particular issues being addressed in the search for improved information on fathers, it is clear that a large share of men excluded by these approaches are fathers (Harlowe, 1996). To fully understand the roles that men play in their children's lives -- and the types of influence they may have intentionally or otherwise -- it is important to examine better ways to obtain information from men in institutions and in the military population.

Data Collection Procedures:

Response Burden. Collecting information on or from fathers clearly increases interview time. There is a strategic issue as to which surveys should be affected and how, since response burden is a substantial issue in many large scale surveys that affects both their feasibility (from a financial and operational perspective) and the quality of the information provided when respondents tire. This problem very quickly reverts to what information is required and what are the best ways to obtain it, but it is also a fundamentally methodological issue regarding how to balance subject matter among the most appropriate, effective, and efficient surveys of differing designs and content.

There are two types of respondent burdens to face, but it is unclear how these will play out in terms of surveys of fathers. Furthermore, both types are affected by mode. The first is the burden associated with the difficulty of the task. This would include the length of the questionnaire, how many respondents are interviewed, and how difficult the questions are to answer (Groves, 1989; Tucker, Casady, and Lepowski, 1991; Schuman and Presser, 1981; Heberlein and Baumgartner, 1978; Herzog and Bachman, 1981; Sudman and Ferber, 1974; Silberstein, 1993; Dillman, Brown, Carlson, Mason, Saltiel, and Sangster, 1995; Herriot, 1977, Hermann, 1993). What effects these factors have on data quality will depend on the mode of administration (deLeeuw and van der Zouwen, 1988; Groves, et. al.; Tucker, Casdy, Lepowski, 1991; Groves, 1989; Wiley and Hochstim, 1967; Rogers, 1976; Warriner, 1991; Sudman and Bradburn, 1973; Morgenstern and Barrett, 1974; Krosnick and Alwin, 1987; Miller and Downes-Le Guin, 1989; Conrad, Brown, and Cashman, 1993; Silberstein, 1989; Mullin, Cashman, and Straub, 1996; Hermann, McEvoy, Hertzog, Hertel, and Johnson). For instance, surveys done in person have the potential to be more burdensome because they can be longer and involve more complicated tasks.

In this case, burden may be tied closely to the extent of recall required, and recall has been a subject of intensive study. The saliency of experiences will be related to the ability to recall them, but the way the questions or memory probes are ordered and formatted also can matter (Schuman and Presser, 1981). The difficulty of the task also is affected by whether data collection will recur (Kasprzyk, Duncan, Kalton, and Singh, 1989). Recurrent data collection can be quite burdensome. If the collection is done too often, the respondent is likely to become annoyed. Infrequent collection might avoid this problem, but it can make the recall task more difficult and recontact will be more problematic. The more infrequent the contact, the longer the survey might become.

A considerable amount of research is needed to develop less burdensome data collection instruments for fathers and children. This would include the level of difficulty associated with different questionnaire formats under various modes. Research should be done on the problems associated with recall of family history and the usefulness of available records in the household. The feasibility of inserting and removing modules of

questions in both cross-sectional and longitudinal surveys should be examined. The optimal frequency of data collection for recurring surveys should be determined.

The other concern is the burden accompanying sensitive items (Colombotos, 1965). Questions about income, sexual practices, drug use, and some health conditions can be very sensitive to some respondents. In addition, information about family relationships, critical in this case, is often difficult to obtain from respondents. Mode of administration is important here also in that distance from the interviewer can affect the respondent's feelings of privacy and confidentiality. Methods of reducing the burden associated with sensitive items have been investigated. These include randomized response techniques, (Groves, 1989) self-administered survey instruments, (Turner, Forsyth, Reilly, and Miller, 1996) and question order (Groves, 1989).

Reporting. For understanding different aspects of fatherhood and fathering, it may be more desirable to use proxy- or self-reporting. The trade-offs between the two fundamental ways of obtaining information are related to cost, accuracy, reliability, and accessibility to the respondent. While in some cases proxy responses provide entirely adequate information, in others information can only be obtained directly from the father who is being studied. Further research is needed on which areas previous partners or children are able to serve as proxy respondents and which ones require the additional expense of locating and interviewing the fathers to achieve the needed accuracy and reliability. When fathers must be contacted directly, there may be serious problems with accessibility of the respondent, so that targeted studies may be designed to gather information on a more limited sample.

The central question to ask about proxy response is whether it is less accurate than self response. It seems that it should be in most cases (Jones, Nisbett, 1972, Lord, 1980). However, empirical work, which is difficult to do, has shown this to not always be true. Some have speculated the relationships among family members will have an effect (Groves, 1989; Mathiowetz and Groves, 1989; Moore, 1988). The other reason results on this question might vary is that the accuracy of proxy reports could depend on the subject of the inquiry, the questionnaire strategies used to obtain the reports, or whether the proxy has first-hand experience concerning the information being sought (Miller and Tucker, 1993; Tucker and Miller, 1993; Kojetin and Miller, 1993; Cash and Moss, 1972; Kojetin and Mullin, 1995; Mullin and Tonn, 1993; Bickart, Blair, and Menon, 1994; Schwarz and Sudman; Menon, Bickart, Sudman, and Blair, 1995; Kojetin, Burnbauer, and Mullin, 1995; Kojetin and Jerstad, 1997). Nevertheless, in the case of men's reports of their children living elsewhere, it seems clear that there is indeed underreporting.

Administrative Records. For targeted topics, it may be feasible to obtain some information from administrative records. These can be linked to sample survey data to yield some more specific estimates. However, the usefulness of administrative records is highly dependent on the topics being studied and the availability of information in

different records systems. In any given application, researchers must investigate whether access to records can be obtained under the auspices of the study, what information is available, the quality of the information in the system (primarily in terms of accuracy and completeness), and how such information might be linked to other data being obtained in the study.

Mode of Data Collection. The consequences of gathering data using different modes (mail, telephone, or personal interviews; degree of computer-assistance; observational studies; diaries; or other modes) are closely related to the type of study being undertaken. However, there is still considerable latitude in the designs of some research. Most studies of the effects of interviewing mode have been made with the more typical respondent--the mother or the child. Consequently, further research is needed into how these modes may influence data quality and response rates.

Study Design:

Questionnaire Design and Measurement Issues. There are a variety of issues related to the quality of information obtained from mothers and fathers about the role of fathers in children's lives. If either or both parents are interviewed, most surveys currently ask them both the same questions. Researchers are not yet certain what to ask fathers, because studies have not yet pointed to any distinctive understanding of fathers' roles. However, since researchers do acknowledge that fathers may have unique ways of interacting with their children, it is clear that such relationships cannot be discerned using traditional questions. Further research is needed on what aspects of fathering are important to men, what aspects of fathering are important to children, and ways to improve the quality of information collected. Specifically, the stability, reliability, and validity of survey responses are likely to be increased by improving the questions asked. Another measurement of critical importance is the time reference used in sample surveys. This also has important implications for the quality of data obtained from respondents.

New questions will be needed to assess what fathers contribute to their children, both emotionally and physically. Other questions will focus on the ways fathers and children view their relationships with one another. Some questions will be subjective, but many should be behavioral measures. Types of questions which could be used are attitude scales, behavioral frequency measures, behavioral checklists, and open-ended items (Poister, 1978).

Whatever the types of questions used, they must be thoroughly tested. This research is important to ensuring ultimately data quality. The identification of question wording and order effects is becoming commonplace, and the methods used in this area are growing (Groves, 1989; Schwarz and Sudman, 1993; Conrad and Brown, 1995; Esposito, Campanelli, Rothgeb, and Polivka, 1991; Forsyth, Lessler, and Hubbard, 1992; Turner, Lessler, and Gfroerer,; Martin and Polivka, 1995; Menon, 1994, Schwarz and

Sudman; Willis, Royston, and Bercini, 1991; Tanur, 1992; Sudman, Bradburn, and Schwarz, 1996).

This work also examines problems of respondent understanding, memory, and recall, which will be of central importance in the development of data collection instruments concerning fatherhood. Small field and laboratory tests will be necessary, as well as the field observation of large-scale tests. Testing will involve think-aloud interviews, respondent and interviewer debriefings, and interview monitoring with behavior coding. Administrative data can also be used to measure data quality (Moore and Marquis, 1989).

Research should be undertaken to develop methods which overcome problems of memory and recall. Some research has already been done in this area (Anderson and Conway, 1993; Schwarz and Sudman, 1993; Burt, Mitchell, Raggatt, Jones, and Cowna, 1995), but more is needed as it relates to the experiences of fathers and children. One method which could have some merit is time-use diaries (Juster and Stafford, 1985). Respondents also might be asked to do narrative histories of family relationships which could be content analyzed (Dillman, 1978; Groves, 1989; Groves and Kahn, 1979). Other qualitative methods will be discussed under recommendations number 7, below.

Questionnaire design is dependent on the mode of data collection. For instance, long lists requiring flashcards cannot be used in telephone surveys, and lengthy narratives cannot be collected over the telephone. Question order effects will differ by mode, and the ability to obtain answers from multiple household members will be limited with both telephone and mail surveys. Literacy is a problem in mail surveys, but privacy and confidentiality is better preserved, unless computerized self-administered surveys are used. Thus, the effects of mode on surveys of fathers will need to be considered, and the information to be collected should be fitted to the mode.

Finally, multiple measures from multiple sources will be needed to ensure the quality and/or accuracy of the data. This is true for two reasons. As with most social research, the measures used can have a considerable amount of nonsampling error, so it is better to use multiple measures of the same concept and arrive at a combined indicator by “triangulation,” also known as the multi-trait/multi-method approach (Alwin, 1974; Campbell and Fiske, 1959; Jick, 1979; Tucker, 1992). The other reason it is important, especially in this case, is that different respondents may give conflicting answers or, at least, express different points of view. A more accurate picture is likely to be obtained by asking the same questions to several family members and/or gathering data from outside sources such as education or health providers and administrative records.

Linking Quantitative and Qualitative Designs. Enhancing quantitative survey designs with qualitative research methods has the potential to enhance knowledge in at least two ways. First, researchers can address many of the methodological and substantive issues that are not yet completely or even well understood using qualitative

techniques. Such smaller scale studies frequently provide approaches to address issues in large scale quantitative studies. These studies can help to develop topics to study, question wording, or survey design, as a few examples. Secondly, linking methods can greatly enrich what can be learned by either approach taken alone. Combined approaches provide a much more rounded view of social phenomena by calling on the strengths of each (U.S. Department of Education, National Center for Education Statistics).

The fact is that quantitative data, especially when presented only at the aggregate level, often masks or even misstates important relationships (Copeland and White, 1991). Thus, qualitative methods are needed to inform and guide quantitative research. Fortunately, the last decade has seen one example of the effective use of both methodologies--the use of cognitive methods in survey research (Fienberg and Tanur, 1989; Forsyth, Lessler, and Hubbard, 1992; Nargundkar and Gower, 1991; Turner, Lessler, Gfoerer; and Tanur, 1992; Sudman, Bradburn, and Schwarz, 1996). This combination was used very effectively in both designing and analyzing the Supplement on Race and Ethnicity to the Current Population Survey (Cannell, Oksenberg, Fowler, Kalton, and Bischooping, 1989; McKay and de la Puente, 1995; McKay, Stinson, de la Puente, and Kojetin, 1996; Tucker, 1996; Esposito, Campanelli, Rothgeb, and Polivka, 1991; Willis, Royston, and Bercini, 1991; Conrad, and Brown, 1995; Peterson and Schechter, 1995) Qualitative methodologies from other fields, such as anthropology, also have been used (McKay, 1993), and work is ongoing to include other disciplines like linguistics. ²

Many lessons have been learned from these experiences. One of them is that qualitative methods are useful for designing questionnaires that interviewers can administer more easily and that respondents can understand. These techniques also can help explain seemingly conflicting or confusing findings from quantitative research. Several limitations, however, have already been encountered, and research is beginning to deal with these. One problem with qualitative research is that the methodology is less codified. This problem has been examined (Tucker, 1996), and more rigorous methods are being developed (Conrad and Blair, 1996; Tucker, 1996; King, Keohane, and Verba, 1994; Yin, 1989). Basically, qualitative research still must be judged against the same scientific standards as quantitative research. At the same time, qualitative research should not be dismissed out of hand if its standards are high. Therefore, in studies of fathers, the two should be used together, and the results should be judged with the same ruler. Given, the complexity of the problem, both will be useful.

Longitudinal or Cross-sectional Designs. Whether a longitudinal or cross-sectional design is selected is dependent on the kinds of information that are being sought. While longitudinal designs tend to be thought of as more expensive, they may be

²Second Conference on Cognitive Aspects of Survey Methodology, June 1997.

more cost-effective through providing richer information with a smaller sample than may be achieved with repeated cross-sectional studies.

Population Diversity. Just as it may be inadequate to study parenting by asking the same questions of both mothers and fathers, it also may lead to inadequate understanding of important issues if studies do not account for the diversity in the population. The rich cultural, ethnic, racial, and linguistic diversity in the population of the United States means that studies have to be carefully designed to elicit information from different groups. In studies that are characterized by uniformity of administration to all respondents (such as large scale sample survey research), this means that conscious compromises will need to be made to develop items that are understandable to a wide variety of respondents. In other types of research, special, more targeted, approaches may be taken when dealing with different populations; or specific studies may be developed for different groups. The challenges of population diversity relate to the content of the study (different aspects of fathering may carry different levels of importance), conceptualization of the content (different groups may have varying perspectives on the same issues), and structure and wording of questionnaires or interview templates.

Measuring Time Use. Assessment of parent-child interaction often rests largely on reports of children's time use. There are several ways of assessing how much time and in what activities parents and children engage. The most accurate way to collect such data would be through observation. However, such methods are costly, intrusive, and limited in the amount of a day that can be covered. Another accurate way to collect information is by time sampling, in which respondents write down the activity they are engaged in whenever a beeper sounds. This methodology is also costly, intrusive and limited. The most common method in survey research is to ask parents directly how much time they spend in certain activities, such as reading to their child. While simple and widely used, this method is known to be biased. First, it is subject to social desirability bias. Parents will report more time spent on desirable activities (such as reading) than on less desirable ones. Second, there is no baseline against which to check consistency, validity, or reliability. Thus times have been shown to be quite inaccurately reported (Juster and Stafford, 1985).

In contrast, substantial methodological work has established the validity and reliability of data collected in time-diary form (Juster and Stafford, 1985). The instrument for assessing time use is a "time diary," which is a chronological report by the child and/or the child's primary caretaker about the child's activities over a specified recent 24-hour period, beginning at midnight (who the reporter is depends on the age of the child). The time diary is interviewer-administered and asks several questions about the child's flow of activities, such as what they were doing at that time, when the activity began and ended, and what else they were doing (if they were engaged in multiple activities). The Child Development Supplement to the Panel Study of Income Dynamics also added two questions: "Who was (child) doing that with?" And "Who else was

there?" These added questions, when linked to activity codes such as "playing" or "being read to" provide unbiased details on the extent of parent/child one-on-one interactions and availability of the parents. The advantage of such questions is that total time in one day has to add to 24 hours. Consequently, while individual times may be slightly inaccurate, the times are consistent with one another. The disadvantage of the time diary is that it represents only a sample of children's days. Thus while it accurately represents the activities of a sample of children on a given day, it is only a very small sample of a given child's days and, as such has limited reliability. To improve reliability, most time-use studies obtain at least one weekend and one weekday assessment, and many also obtain multiple samples over a period of time, such as a year.

Since the data collection format is open-ended--an advantage for avoiding biases toward "good" activities and away from "bad" activities but a potential pitfall for proper interpretation of the data--precise, clear, and well-focused definitions of activities are vital. Fortunately, the 1975-1981 Time Use Study has paved the way in terms of guidelines for coding children's time-diary reports (Juster and Stafford, 1985). Working with several child development experts and time-use experts in a number of disciplines and representing a wide range of countries and cultures, Hill, Stafford, Juster, and colleagues in the 1981 follow-up in the 1975-1981 Time Use Study spent considerable time and effort designing a time-use methodology appropriate to children (Hill, Stafford, Juster, and colleagues, 1975-1981). The methodology is not onerous. Researchers have found that parents of young children enjoy working with their youngsters to provide the children's time diaries, which take about 15 minutes per child per day, and can adequately represent the child's day.

How Should New Data Collection Be Undertaken?

There are two issues that are fundamental for the research community to consider in designing studies to obtain information on fathers: (1) Should a new study be initiated or would an add-on to an existing study be more appropriate? (2) Should the study be conducted by Federal statistical agencies or as a privately sponsored effort? While it is clear that the right directions depend in part on the nature of the study, some guidance about factors to consider when addressing these questions may be useful.

New vs. Supplemental Studies. In the past, new ideas may have readily generated entirely new studies. However, concerns about financial support for social science research now more often lead to consideration of ways to piggyback onto existing studies. There are, however, advantages and disadvantages to either approach. New studies have a distinct advantage in that the designers and sponsors of the study can exercise substantially greater latitude in defining the scope of the study. As a result, they are better able to focus the entire study on the topics of interest rather than having to fit components in around an existing questionnaire or other information collection. Similarly, they have greater control over the research design and study operations, within cost constraints, so that these aspects can be tailored to their needs. They have the

disadvantages of higher costs and longer start-up time that unavoidably occur with a new program.

Supplemental studies address that disadvantage directly, typically being of lower cost and with a faster start-up time. Often, the sponsor will only have to contribute marginal costs, which may be minimal, to obtain additional information. Additional information that is likely to be related to the topic of interest will be obtained at no cost to the sponsor because it is included in the base survey. However, the lack of control over the design of the survey and the sample introduce potentially severe disadvantages. The sponsor may not have control over question wording, although this problem is more likely to affect those items already in the study than those being added. Lack of control over survey operations and data processing can hinder the utility of the results, insofar as they influence the outcomes of the inquiry or the timeliness of reporting. The latter is a problem particularly if the primary data are processed with higher priority. In a related issue, the context of the independent study may introduce response or nonresponse bias if its content or design are not compatible with the goals of the sponsor. Finally, although the cost advantage is attractive, this approach means that the sponsor depends on another organization to carry out the survey, to obtain funding for the core, and to produce the data. It is not entirely unusual for such arrangements to fall through when funding unfortunately becomes unavailable for the sponsor of the core survey.

Federal vs. Privately Sponsored Studies. Studies that are conducted by or for the Federal government under contract have different strengths and weaknesses than those of studies that are fully privately sponsored or that are conducted under a grant from the Federal government. However, in recent years, these distinctions have become increasingly blurred, as funding sources for Federal statistical studies have declined and the quality of large scale research in the private sector has improved. Nevertheless, there remain significant differences between these two types of studies.

While Federal studies historically have been thought to have more secure funding sources once the government committed to the survey, this may no longer be the case in the current budget climate. Federal surveys do have a small advantage in easier access to national sampling frames that may be more difficult to construct in the private sector. Federal researchers are constrained to create public use analysis files for researchers to have equal access to, and this clearly enhances the value of the study for the broad research and policy community. Federal agencies typically provide metadata, describing the characteristics of the data, which is highly important for more informed use of the data. Consistent with these last two aspects, publicity about the availability of the data is typically seen as a part of the survey process, thus enhancing access. Despite concerns about response burden, the Federal government still tends to achieve substantially higher response rates than are achieved in privately-sponsored surveys.

Federal surveys also have disadvantages, many of which stem from a generally long lead time from conceptualization to development to data production and analysis.

Funding is typically difficult to secure initially. The clearance process conducted by the Office of Management and Budget adds considerable time to the survey process, and can place constraints on the response burden and content of surveys that can restrict the topics that can successfully be studied. In certain studies, association of a study with a particular agency may introduce response bias. Finally, whether because of elaborate designs or operational inefficiencies, Federal studies tend to be somewhat costly.

Privately sponsored studies or studies conducted with Federal grants avoid some of these disadvantages. The researcher may have more latitude in defining the topics of study, and so may be able to address more sensitive issues. These studies show a clear advantage in that less time is typically required to move from conceptualization to data production. Researchers can more readily adopt innovative techniques, that may (or may not) prove useful from a wide variety of perspectives. And, as noted above, such studies may be designed to serve more precise needs and they may, as a result, be less costly.

On the other hand, privately sponsored studies are less likely to provide timely public use data files to allow the broader research community access for analysis. The degree of collaboration is more dependent on the individual principal investigators, as there is less motivation to do so from the perspective of the public good. Finally, the care and attention focused on technical issues of all sorts varies considerably in such studies. This disadvantage can have serious and broad consequences for the quality and utility of the data.

Recommendations

Let us now summarize the implications of the research activity we have reviewed for future research on fathers. The state of knowledge about how to study fathers is not adequate to prescribe a single set of optimal procedures for all studies; and we do not wish to create a new methodological orthodoxy. Nevertheless, we believe that the following implications can be drawn.

1. ***Include fathers.*** Fatherhood is a complex aspect of our society that is inadequately understood. The knowledge base is insufficient to inform policy makers about the roles that fathers and mothers play in our families and our communities. Issues extend beyond the most commonly expressed concerns about absent fathers. Thus, national surveys need to provide a more accurate and in-depth profile of fathers to improve this understanding. Two surveys in particular should consider including fathers as interviewees – the Early Childhood Longitudinal Survey and the National Survey of Family Growth.

Studies of what non-resident fathers do should include non-resident fathers. Although this precept might seem self-evident, its adoption would mark a major change in research design. Until recently, an inordinate proportion of studies of fatherhood have attempted to measure the importance of absent fathers solely by examining households in which

fathers are absent. In most of these studies, little or no effort was made to contact absent fathers. This literature on father absence has been useful but it has its limits. Studies that dichotomize all fathers into “present” and “absent” may miss important aspects of a child’s continuing relationship with a non-resident parent. Studies that do not contact the absent parent are inherently limited in the understanding they can provide about why fathers may be relatively uninvolved with their children. Future research on non-resident fathers should move beyond merely studying their absence.

2. ***Improve household survey methodology.*** The standard household survey methodology is critical to our understanding of fathers because it is the only methodology that has the potential for identifying the entire universe of resident fathers and nearly all nonresident fathers. A very small share of fathers are outside of this sampling frame. Part of the underrepresentation of fathers in household surveys is due to an undercount of fathers who are tenuously attached to households and part is due to underreporting by men who are interviewed but who do not disclose that they have children living elsewhere. Both of these issues can and should be addressed.

3. ***Add expanded household and extra-household rosters to existing surveys.*** Standard rosters in household surveys are not adequate to resolve the problems of underrepresentation. Experimental surveys have increased their coverage of underrepresented groups of fathers by using an expanded set of questions and probes. Existing surveys should test these questions and probes along with their standard rostering techniques. Follow-up interviews should be conducted with a subset of these individuals to ascertain who is not being interviewed. Some surveys are also obtaining extra-household rosters of important family members who live elsewhere, such as non-resident parents and non-resident children and attempting to conduct follow-up interviews with these individuals. Further study of these individuals may be desirable.

In-depth studies (particularly long-term longitudinal studies) should carefully consider whether including fathers as interviewees would not improve the utility of the database. The Early Childhood Longitudinal Study of the National Center for Education Statistics, in particular, should make every effort to include a father supplement at some point in the study. This study, currently under development, could provide important information about children’s development in relation to father involvement that could have important policy implications. Some effort is needed to include at least correctional institutions in household surveys to fill out the picture of absent fathers. The typical exclusion of men in institutions leads to a distorted view of how families function in our society.

4. ***Develop questions that are relevant to fathers and result in accurate responses.*** Unlike the well-tested interview protocols for female fertility and family formation, protocols for surveys focused on fathers are not yet well-developed or standardized. It is not wise to merely ask fathers a set of questions about parenting that parallels the set typically asked of mothers. Rather, new questions are needed to assess

fathers' contributions to their children's development. Better measures of time use, such as time diaries, need to be incorporated in studies. Consequently, survey-based studies of fathers should include a substantial amount of development and testing prior to interviews with the sample. Exploratory methods exist that use laboratory and small field-test settings; these methods include think-aloud interviews, respondent and interviewer debriefings, and interview monitoring.

5. ***Improve procedures for asking sensitive questions.*** There is strong evidence that even when fathers are interviewed, they underreport the existence of their children living elsewhere. Mothers may also underreport non-resident fathers of their children. In addition, non-resident parents may be motivated to exaggerate the amount of contact they have with their children. For these reasons, it is important to employ, when feasible, improved measures for obtaining this information. We will note below that this is an important topic for further methodological research. Some promising techniques for survey research have been developed, such as audio computer self-administered segments of interviews. This is also a topic for which ethnographic studies are useful, both for identifying and studying fathers whose existence may not be revealed by a survey and for suggesting better ways to ask sensitive questions in surveys.

6. ***Reduce response burden.*** Other Working Groups recommend placing a high priority on obtaining detailed sexual, reproductive, and union histories for men. Yet the complexities of some men's sexual histories and reproductive careers means that for a subset of fathers, obtaining comprehensive histories could impose a substantial response burden. The very fathers who have the longest, most complex histories are often the group of greatest interest. It is not clear how much information can be collected from them: respondents may tire of remembering their histories at some point, or they may remember dates inconsistently. Therefore, a high priority for methodological research is to undertake studies of ways to reduce the response burden imposed by extensive histories. The life-history calendar is one way to reduce the burden; it seems to be clearly preferred by respondents to interviewer questions; and it seems to result in better quality data (Peterson and Schechter, 1995). But little methodological research has been conducted specifically on men. New studies that propose the collection of extensive sexual, reproductive, and union history from men should include development and pretesting of ways to reduce the response burden of histories; and methodological research on the topic should be supported.

7. ***Conduct intensive observational studies.*** The gaps in our knowledge of what fathers (both resident and non-resident) do suggest the importance of smaller, intensive observational studies. For example, developmental psychologists conduct studies of children and their caregivers that involve direct observation, batteries of tests and assessments, and sometimes videotaping and subsequent rating of family interaction. Ethnographers conduct studies that use anthropological field work methods to describe and understand family interaction. These kinds of studies can provide valuable insights about fathering. They also can serve as hypothesis-generating studies that yield

propositions about fathers that can be tested by subsequent close-ended questions in larger, more representative sample surveys.

8. ***Use supplementary and alternative sampling strategies.*** The standard household sample-survey methodology appears not to find many unmarried fathers. Other sampling strategies may sometimes be advantageous, either as supplements to household samples or as alternatives to them. The underrepresentation is particularly large for young men from minority groups, so other sampling strategies are particularly important for studies which focus on them. Part of the underrepresentation is due to an undercount of fathers who are tenuously attached to households and part is due to underreporting by men who are interviewed but who do not disclose that they have children living elsewhere. The other sampling strategies include the use of administrative records to locate fathers who may no longer be involved with their children or whose names are not supplied by respondents in a household survey. They also include the addition of the incarcerated population and the military population when possible. In addition, they may include the development of alternative designs such as sampling on births at hospitals and interviewing both parents for the first time as soon after the birth as possible.

9. ***Recognize population diversity.*** The roles of fathers are embedded in larger family processes that can differ by class, race, and ethnic groups. Even within these groups there can be substantial diversity. Studies need to take this diversity into account. For example, studies of low-income groups where single-parent families and broad kinship networks are more common should consider the roles in children's lives of stepfathers, male kin, mothers' boyfriends, and other men. In addition, the roles of biological fathers may differ in family settings where extended kinship ties (such as to grandparents, aunts, or uncles) are present; consequently, studies of fathers should consider variations in family patterns.

10. ***Be careful of unobserved sources of bias.*** Despite the best efforts of researchers, studies of fathers can suffer from bias due to incomplete observation or to patterns of responses to questions. Fathers who are underrepresented are likely to have some characteristics that differ from fathers who are represented. Data collected from mother-father pairs are, in principle, superior to data collected from only one parent; but, in practice, the difficulty of collecting matched mother-father reports can result in an underrepresentation of certain kinds of couples. Difficulties in attributing cause and effect can arise, particularly in cross-sectional studies. Studies of fathers should at the very least demonstrate that such problems, and their likely effects on analyses, have been considered. Research designs that can reduce bias should be used where possible. These include so-called panel data (longitudinal studies that can be used to control for unchanging unobserved sources of bias), studies of families that are affected by external assignments of fathers' roles such as military transfers or court orders, and statistical models that attempt to correct for incomplete and self-selected samples.

11. *Carefully consider additions to existing data programs.* It is not clear that completely new, large-scale studies should be undertaken to investigate issues related to fatherhood and fathering at this time. There is a great deal to be learned from working with existing survey mechanisms to expand the content and scope of studies in targeted, appropriate ways to address specific questions. Very little is understood on this topic to inform an emerging policy debate that encompasses far more than just the economic role of fathers. Consequently, important contributions can be made with small scale work and through expansions to existing studies of family conditions and processes. In this time of scarce resources for social science research, funds should be directed where they will provide the greatest insights. Thus, careful trade-offs need to be made in investing in new studies, major expansions of existing studies, and continuing some existing data collections as is in the interests of economy.

12. *Conduct more methodological research.* Lastly, we call for a program of methodological research on studying fathers. Because of the focus of past studies on mothers and on families that do not extend beyond the boundaries of one household, not enough is known about how to study fathers. We have briefly summarized the major developments in methodological research at this time. But many important facets of research on fathers need to be improved before we can be satisfied with the quality of current and future studies. These include the basic problems of finding non-resident fathers, of the underreporting of fatherhood among the men that are found, and of obtaining full and accurate answers about contact with children living elsewhere. Solutions involve sampling strategies, interviewing techniques, and questionnaire design. We need to know more about how to combine and analyze responses from mother and fathers (coresident or non-coresident) in data in which couples are the unit.

Furthermore, in order to construct informative surveys, we need to know more about what aspects of fathering are important and valuable. Questions of and about fathers should include more than just their economic circumstances and contributions to families. An expanded concept of fatherhood is essential. We doubt that this information can be obtained without detailed, observational studies of fathers and children of the type carried out by developmental psychologists and ethnographers. Technically speaking this is substantive, rather than methodological research; but it is a necessary precursor to the construction of adequate structured survey instruments. For example, other Working Groups note the importance of determining men's attitudes toward fatherhood and their motivations for having children. Although there is a psychometric literature on the reliability and validity of survey-based measures of attitudes and motivations, little research has been conducted on the population of interest. Qualitative studies would be particularly useful in order to determine the kinds of questions that close-ended surveys ought to ask.

Conclusion

There is much methodological work to be undertaken to help improve the quality and scope of information available on fathers and fathering. This paper has attempted to present some of the methodological issues, while at the same time suggesting some types of activities that could be undertaken immediately to improve the information base. Although it is always difficult to discuss methodology absent a clear concept of what content is needed, the dearth of information on these topics is so severe that some actions must be taken immediately. It is the sincere hope of this Working Group that the Fatherhood Conference will provide a strong foundation from both the substantive and methodological perspectives to support moving expeditiously to fill the data gaps.

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CHAPTER SIX

OPPORTUNITIES TO IMPROVE DATA AND RESEARCH ON FATHERHOOD

**Chapter 6: Summary of the Targets of Opportunities Presented to the Interagency
Forum on Child and Family Statistics by the Working Group on Targets of
Opportunity and Trade-Offs**

Linda Mellgren (co-chair)

Wendy Taylor (co-chair)

Report to the Federal Interagency Forum

On October 1, 1997 the Data Collection Committee presented to the Federal Forum on Child and Family Statistics a report on ten key Federal activities that could improve data collection on fertility, family formation, and fathering. Identified as targets of opportunities, some of these activities required that the Forum initiate action. Others asked the Forum to promote certain opportunities that would benefit from multi-agency support. The Forum endorsed the report and all of the ten identified opportunities are now in some stage of implementation. This chapter presents the ten targets of opportunity, the rationale for their choice, and the implementation activities that are underway.

The goal of this multi-year review of the state of data collection and research on male fertility and fathering has been to fill gaps and build on existing efforts. The ten targets of opportunity identified in this section reflect the general agreement by a wide range of participants on the most important issues that need to be addressed, but do not exhaust the set of recommendations and ideas that have been identified as a part of this review. The report to the Forum focused on those activities that seemed most consistent with the missions of the Forum member agencies and that would benefit substantially from ongoing interagency collaboration. The selection of particular surveys or mechanisms for exploring change resulted from discussions among work group and data collection committee members, conference participants, academic experts and Federal agency staff. New efforts were considered only when no other options were available.

Target of Opportunity One: State of Data Collection and Research on Fathering

C Publish a report on the state of data collection and research on male fertility, family formation, and fathering.

Rationale: The papers and plenary sessions from the March conference provide the most extensive overview of the substantive and methodological issues surrounding data collection and research on male fertility and fatherhood ever assembled at one time. Because of the excellent scholarship and multi-disciplinary partnerships that went into writing the papers, these published proceedings could contribute to the development of more precise measurement and understanding of male fertility and fathering for the next decade.

Implementation Status: This report, *Nurturing Fatherhood: Improving Data and Research on Male Fertility, Family Formation and Fatherhood*, in this report; it has been published and distributed widely and is available on the Internet has been published.

Target of Opportunity Two: Indicators of Male Fertility and Fatherhood

C Publish a Report on Fatherhood Indicators. This report would include indicators on male fertility, family formation, and fathering.

Rationale: A systematic assessment of the information available on male fertility, union formation and fatherhood needs to be conducted to identify desirable indicators, to identify survey mechanisms, to obtain data, to evaluate the quality and usefulness of what is available, and to tabulate and publish the best available information for the public and policy making communities. In the Forum's report, *America's Children: Key National Indicators of Well-Being*, some of the important missing indicators were identified: family structure, time use (for both parents), children's interaction with nonresident parents, particularly fathers, and the establishment of paternity; but more work needs to be done. Although this report would not be a trends report, it would establish the baseline for new trend lines and identify trend information that may exist on a limited number of indicators. Focusing on the indicator identification and selection process would clarify what data on fatherhood are most critical for routine collection by federal statistical agencies. Progress on the development of indicators would also improve the quality and standardization of questions asked on national surveys. We anticipate that a by-product of this effort would be the inclusion of more fatherhood indicators in trends reports produced by the Federal Government and elsewhere.

Implementation Status: The Reporting Committee of the Forum has agreed to develop this baseline report with assistance from the NICHD Family and Child Well-Being Research Network and the Office of the Assistant Secretary for Planning and Evaluation/DHHS. Basic conceptual work is already underway. Potential indicators for male fertility and union formation were developed by the and Work Group Male Fertility and Family Formation as part of their conference paper. Kristin Moore and Anne Driscoll of Child Trends coordinated work on indicators of male fertility and family formation. The NICHD Family and Child Well-being Research Network has asked Randal Day, Kristin Moore and Brett Brown to take the lead on developing fatherhood/fathering indicators. Although the first stage of the process has begun, additional work will be needed to actually identify what information is available and to assess its quality. Some additional data analysis may be needed as well before a product could be published. Funding is being sought from several agencies and from the private sector. The target date for release of the report is on or near Fathers Day 1999.

Target of Opportunity Three: Collection of Data on Male Fertility

C Use the National Survey of Family Growth to increase our understanding of fertility and family formation by interviewing men directly.

Rationale: In order to identify trends and differences in how men become fathers and what they do as fathers, basic descriptive information needs to be collected

periodically about (a) their sexual activity, contraceptive use, the pregnancies to which they contribute, and the outcomes of these pregnancies; (b) males' perceptions of their own and their partners' views of the intendedness of these pregnancies and births and their views of fatherhood and marriage; and (c) what they do as fathers. To accomplish this objective the collection of data about male fertility must be institutionalized. Expansion of the NSFG is the most promising avenue for this effort. What is learned from the NSFG work should also be used to inform the collection of male fertility information in other surveys.

Implementation Status: NCHS has funded seven small contracts to examine what has been learned in other large national surveys that have collected information directly from men on their sexual behavior and family formation. The results of these reviews will be submitted in early in 1998. By April or May of 1998, there should be an outline of the questionnaire for males. A contract will be let in the spring of 1998 to draft a questionnaire for men. In addition to NCHS, NICHD and the Office of Population Affairs (DHHS) are contributing to this developmental work.

Target of Opportunity Four: Better Measurement of Father Absence and Presence

C Include measures of whether fathers live with and have contact with their children in surveys and routine administrative data collection. Additional measures of father-child interaction should be developed and incorporated as feasible.

Rationale: Data on marital status and cohabitation cannot be used to measure father involvement, because unrelated males living in a household may be the children's father, some fathers see their children often and regularly even though they may not be living in the same household with them, and custody and visitation arrangements increase the difficulty of identifying the nature of father-child interactions. Children's living arrangements with their parents have been shown to have strong relationship to child outcomes, but questions on living arrangements and contact in most surveys do not measure father absence or presence accurately. This change would be a first step toward correctly measuring father-child living arrangements and involvement.

Implementation Status: The Data Collection Committee of the Forum will review how questions of cohabitation, contact and interaction are addressed in major federally sponsored surveys and in other routine data collection, such as vital statistics reporting. The Committee is to develop and report back to the Forum with a plan for identifying the best prototype questions and developing new questions, if necessary. The Committee should include recommendations on how to make this information available to sponsoring agencies in a timely fashion. A number of related activities are already underway:

- C As a result of the President's initiative and the Forum's interest in the issue of fatherhood, ASPE and NICHD have provided the Panel Study of Income Dynamics (PSID) with additional resources to expand the information available about and from nonresident fathers. Analysis of the expanded data collection should be available soon.
- C The Data Collection Committee has a project underway to examine how living arrangements are addressed in major national surveys.
- C ASPE has transferred funds to the Census Bureau to investigate the possibility of expanding male fertility and nonresident contact questions on the Survey of Income and Program Participation (SIPP).
- C NCHS is in the process of working with states on the FY 2002 revision of the birth registration forms.
- C NCES has funded Child Trends to identify constructs and review existing father-child contact and involvement questions in major national surveys.

Target of Opportunity Five: Understanding the Role of Father Involvement in Child Development and School Readiness

- C Use the Early Childhood Longitudinal Study Birth Cohort Study (ECLS-B) to expand our understanding of fathers' relationship to child development and school readiness by including a module on the involvement of both resident and nonresident fathers.**

Rationale: The ECLS-B is a new study that will provide information on young children's health and nutrition; physical, cognitive and social development; and child care, child development program and school experience. The ECLS-B will have a nationally representative sample of approximately 15,000 children. This study provides a significant opportunity to identify those aspects of father-child and father-mother interactions that affect young children's development over time. Including fathers is crucial because studies of school-age children and youth have shown that father absence is adversely associated with school performance and that resident and nonresident fathers can have positive effects on school performance, independent of mothers. Yet, at the same time, many previous studies have not found that father involvement influences the cognitive ability of young children. This study would allow us to begun understanding how and when fathers' influence on children's cognitive development and school performance develops.

Implementation Status: The contract for the ECLS-B design has been awarded to Westat. The scope of work includes provision of a module for fathers who live in the home, but no decision has been made on whether to try to interview fathers who do not

live with the child. Developmental work has begun to determine the difficulty in finding nonresident fathers and to identify the most important questions that fathers should be asked. Funding options are being developed to ensure that sufficient resources are included in the survey to obtain information from non-resident fathers who continue to have an influence on their child's development and well-being.

Target of Opportunity Six: The Transition from Adolescence to Adulthood: Understanding the Relationship of Sexual Activity, Fertility, Marriage, and Parenthood to Educational Attainment and Labor Force Participation.

- C Use the new National Longitudinal Survey of Youth (NLSY-97) to increase our understanding of how sexual activity, fertility, marriage, and parenthood (including child support and child care responsibilities) affect educational attainment and labor force participation for men.**

Rationale: The NLSY-97 provides a unique opportunity for examining how male sexual behavior, fertility, cohabitation, marriage and fatherhood affect the education, training, employment and income of young men and women. Longitudinal data obtained directly from young men will provide descriptive information on male behavior. Moreover, analytic data will support studies of how fertility, family formation and fatherhood affect labor force success and how labor force activities affect families and children. The previous youth survey (the NLSY-79) has been one of the most important survey instruments for increasing our understanding of the impact of fathering and family formation on the lives of young men because it interviewed young men directly and asked them questions about their fertility and fathering behaviors rather than gathering information from a secondary source. However, its analytic use would have been enhanced, if comparable data had been collected across all waves.

Implementation Status: An initial wave of data collection has been completed for the NLSY-97 that includes rich data on sexual and contraceptive behavior, cohabitation, marriage and fatherhood. Discussions are underway to determine how many of these questions can be included in the subsequent waves. NICHD has made a funding commitment to help in this effort and to include child support and child care questions as part of future efforts.

Target of Opportunity Seven: Developing a Better Understanding of the Meaning of Father Involvement

- C Use the Early Head Start Research and Evaluation Project as a laboratory for conducting basic theoretical research on the meaning and nature of fathering for low-income men and their children.**

Rationale: Additional basic research is needed to expand the concept of father involvement, constructs should be included, and how those constructs should be

measured. Conference participants identified the need to explore how the meaning of parenthood may differ for men and women and how the meaning and actions of fathering may differ by race, ethnicity, culture and income. Such research usually has to be done outside general survey work because participants need to be interviewed in-depth. Without an expansion of work in this area we will remain unsure that we are asking the right questions about fathering or are asking questions in the right way.

The Early Head Start (EHS) Research and Evaluation Project allows us to examine issues of fathering for low-income and minority parents who are married, cohabitating, dating, or no longer in a relationship, and who have relatively young children (less than two years of age). This is precisely the population that has been ignored in most of the studies of parenting behavior. Because these interviews would take place within the context of the much larger Early Head Start research project, it would also be possible to determine whether the study fathers were generally representative of a much larger group of fathers.

Implementation Status: Members of the Data Collection Committee are working with the EHS project to ensure that a direct connection between research needs and project design is maintained and that the results of the EHS project are shared and utilized to refine measures of father involvement. The Early Head Start Research and Evaluation Project was identified as a potential laboratory in which marginalized fathers could be identified and studied. The project has a group of well-qualified, university-based, researchers at 15 EHS research sites who are interested in conducting research on the issues of fathering and on the relationship of fathering to child development. An EHS research consortium has been formed and has received planning money from the Head Start Bureau and ASPE to develop a collaborative research agenda on low-income fathers that addresses some of the theoretical issues that have been identified in the Forum sponsored research review. NICHD is providing core support and the Ford Foundation is considering funding for an in-depth sub study of fathers and infants.

Target of Opportunity Eight: Finding the Missing Men--Living Arrangements

C Test, as part of a national survey, the experimental method for identifying individuals who are tenuously attached to households developed by the Bureau of the Census and piloted in the Living Situation Survey(LSS).

Rationale: The Living Situation Survey(LSS) was developed as part of the Bureau of the Census' ongoing efforts to decrease undercoverage in the decennial census. About one-third of the coverage error in surveys occur because of errors made in compiling household rosters, and error rates are higher for minorities, males, young adults, nonrelatives, and persons with tenuous attachment to households. Fathers, especially young adult, minority, never-married fathers, who are not located or are not included in the survey process at all are undercounted in large scale sample surveys, including the decennial census. This undercount varies by age and race and also appears

to be greater for never-married fathers than for previously-married fathers. One of the reasons for this undercount is that many young-adult minority men do not permanently reside in any one household. They may live for a few weeks with their parents, move in with a girlfriend or other friends for a while and then stay with a sibling. Frequently no one considers the young man a member of their household. Because the undercount is heavily concentrated in populations of high policy interest, improvements in coverage have the potential of improving our data on a wide range of areas including fertility and family structure, income and child support, victimization, health and risk behaviors. The LSS has been pretested on a national probability sample of one thousand households. The results of that test were quite promising.

Implementation Status: Census Bureau researchers are proposing a field experiment in July of 1999 to evaluate the efficacy of modified and expanded roster probes for possible implementation in Census Bureau household surveys. The field experimentation would be followed by ethnographic follow-up interviews to further explore causes of omissions. NICHD has made a commitment of \$100,000 to the Census for further development work and testing of the methods employed in the Living Situation Survey. This work will provide important information, but a full scale test of the LSS as a part of a national survey would provide higher quality and more definitive information.

Target of Opportunity Nine: Finding the Missing Men: Special Populations

C Explore, with the Department of Justice and the Department of Defense, the possibility of including military and prison populations in some surveys.

Rationale: Fathers in the military and in prison are part of the undercount problem. Like the lack of permanent living arrangement, the absence of these populations from national surveys distorts the identification of who and where fathers are and how they affect their children's development. Moreover, the household sampling frame for most of our national surveys would continue to exclude these populations even if we expanded the definition of living arrangement in those surveys. Prison surveys indicate that over two-thirds of the men in prison are fathers; given the relatively young age of men in prison, many have children who are still minors. Some urban areas are heavily affected by the criminal justice system, with 25% or more of young men in jail or prison. Similarly, men in military barracks are missing from household sampling frames as well. Methods should be identified that permit these populations to be included in our surveys, or special surveys of these populations should be developed so that they can be combined with, or be used in conjunction with, other national data collection efforts.

Implementation Status: A subcommittee of the Data Collection Committee has been formed to explore improving data collection and comparability of data collection of institutionalized populations. The subcommittee is chaired by the National Institute of Justice with participating members from the Bureau of Justice Statistics, The

Administration for Children and Families/ Department of Health and Human Services, Department of Education, and National Center for Health Statistics. We are exploring with the Department of Defense whether they would like to co-chair this effort which would be expanded to cover military personnel or lead a parallel effort.

Target of Opportunity Ten: Expanding Data Collection Sources

C Explore the possibility of using state administrative data to augment national survey data about fathers.

Rationale: One of the most complex data problems involving fathers is that it is difficult to collect any information about nonresident fathers. Direct interviews of resident and nonresident parents double the cost of collecting information and information asked of the resident parent, about the parent who lives elsewhere, is often unreliable. There is currently an expansion of information being collected at the state level on nonresident parents as part of new mandates on the child support enforcement system. These mandates may make it possible to add some income, employment and location information to survey data without conducting two interviews.

Implementation Status: The State and Local Data Committee will explore the feasibility of testing the use of state administrative data to augment national survey data about families. The Committee will review current efforts, and identify issues and constraints, e.g., privacy, informed consent, and survey integrity.

Continuing the Public-Private Partnership

The general approach taken in the selection of these targets of opportunity was to identify a mix of activities that would produce significant improvements in how data on fertility, family formation and fathering is collected and that could provide a broad research community with more accurate and complete information on factors that affect family and child well-being. The opportunities selected are not the only options for accomplishing these objectives, but, in the considered judgement of federal staff and researchers, appeared to be the opportunities with high potential for success and ones that would benefit from the Forum's Federal leadership. Critical to the selection of activities were issues of timing, staff resources, and agency commitment.

Costs associated with each of the ten targets of opportunity have been discussed, but those discussions are not included in this volume. Some projects will be done as part of competitively-awarded government contracts, other activities will be negotiated as part of ongoing agency administrative or intramural research expenditures. Some projects are soliciting support from private foundations. These investments are likely to have a high payoff, not just to our understanding of the dynamics of fatherhood, but is our understanding of how children are affected by the family and community context in which they live.

An organized, well-thought out, interdisciplinary plan for improving information on male fertility, family formation and fatherhood has the potential to cost less than ad hoc project development, or to cost no more, but with a substantial increase in the quality and quantity of available information. By building on agencies' existing plans and by coordinating question development across agency surveys, inefficiencies and redundancies can be reduced. Since the preponderance of evidence indicates that father involvement may play a crucial role in promoting child well-being and in helping children make the difficult transition from childhood to productive adulthood, the cost of inaction was thought to be much higher than the cost of concerted action on the part of the Forum and its member agencies.

The success of these opportunities also will depend on the continued participation of foundation and academic and nonprofit research partners. It is hoped that the development of an overall plan and the publication of these conference papers will mobilize resources and focus the attention of foundations and research experts on activities likely to produce substantial payoffs. Foundation support for this effort has already been strong and likely to continue. This review has also facilitated additional federal agency collaboration in terms of both resource commitments and joint staff efforts. To help in this collaborative effort we have included at Appendix M the names and addresses of prime contacts for each of the Chapters in this report and for the ten targets of opportunities.

There are many other national surveys and data collection activities, other than the ones we mention in this report, that will continue to be very important in increasing our understanding of male fertility, family formation and fathering. The importance of many of these has been recognized, discussed, and incorporated into the activities of this review. It is anticipated that, in addition to the publication of this volume (opportunity one), the work on other recommendations will also move forward. For example, development of the indicators report (opportunity two) and the Data Collection Committee paper on improving information on cohabitation, contact and father-child interaction (opportunity four), will specifically address the current, potential, and unique contributions of these efforts. By working together to push the analytic limits of our current data collection efforts and to thoughtfully expand new data collection efforts we can contribute to the well-being of the children of the twenty-first century.

APPENDICES

APPENDIX A

CONFERENCE AGENDA AND WORKING GROUP MEMBERS

CONFERENCE ON FATHERING AND MALE FERTILITY: IMPROVING DATA AND RESEARCH

Sponsored by the National Institute of Child Health and Human Development (NICHD), the Federal Interagency Forum on Child and Family Statistics, the NICHD Family and Child Well-being Research Network, and The Ford, Kaiser Family and Annie E. Casey Foundations

Natcher Conference Center, National Institutes of Health
Bethesda, Maryland
March 13-14, 1997

Agenda

Thursday, March 13

8:30 Coffee and Registration

9:00 -10:00 Session 1: Introduction and Greetings

V. Jeffery Evans, Health Scientist Administrator, NICHD
Lisa Mallory, Agency Liaison, Fatherhood Initiative, National Performance Review
Duane Alexander, Director, NICHD - History of the Fatherhood Initiative, Involvement

of the

Interagency Forum for Child and Family Statistics, and Charge to the Conference

Participants.

REPORTS FROM WORKING GROUPS

10:00 - 12:00 Session II: Conceptualizing Fathering

Moderator: Marilyn Manser, Assistant Commissioner, Employment, Research and Program Development, Bureau of Labor Statistics

Presenters: William Marsiglio, University of Florida
Randal Day, Washington State University

12:00 Lunch

1:00 - 3:00 Session III: Male Fertility and Family Formation

Moderator: Jennifer Madans, Acting Associate Director for Vital and Health Statistics, National Center for Health Statistics

Presenters: Christine Bachrach, NICHD
Arland Thornton, ISR, University of Michigan
Freya Sonenstein, The Urban Institute
Kristin Moore, Child Trends, Inc.

3:00 - 3:15 Break

3:15 - 5:15 Session IV - Methodology

Moderator: Nancy M. Gordon, Associate Director for Demographic Programs, U.S. Bureau of the Census

Presenters: Jeanne Griffith, National Science Foundation
Andrew Cherlin, Johns Hopkins University
Elizabeth Martin, U.S. Bureau of the Census
Clyde Tucker, Bureau of Labor Statistics
Elaine Sorensen, The Urban Institute

5:15 Adjourn

5:30 Cash Bar - Bethesda Ramada

6:15 No Host Dinner - Bethesda Ramada

Friday, March 14

8:30 Coffee

9:00 -12:00 Session V: Breakout Groups

Participants will be assigned to one of five breakout groups that will meet in E1/E2 and the four Breakout rooms. They will ponder the implications of the three reports presented the previous day and develop a sense of priority regarding them.

Facilitators: David Johnson, Bureau of Labor Statistics
Jerry West, National Center for Education Statistics
Kelleen Kaye, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services
Ken Bryson, US Bureau of the Census
William Mosher, National Center for Health Statistics

12:00 Lunch

1:00 - 3:00 Plenary

Moderators: Linda Mellgren, Policy Analyst, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services
Wendy Taylor, Policy Analyst, Office of Management and Budget

Breakout groups will give reports of their recommendations. Facilitators of breakout groups will be the reporters. A general discussion will try to focus on the most important steps in an action plan for future federal action.

3:00 Adjourn

Working Group Members

Family Formation and Male Fertility:

Chairs: Christine Bachrach (NICHD), Freya Sonenstein (The Urban Institute).

Government Members: David Arnaudo (Office of Child Support Enforcement, DHHS), Barbara Cleveland (Office of Child Support Enforcement, DHHS), Eugenia Eckard (Office of Population Affairs, DHHS), Howie Goldberg (Centers for Disease Control and Prevention, DHHS), Kelleen Kaye (Office of the Assistant Secretary for Planning and Evaluation, DHHS), Gontran Lamberty (Maternal Child Health, DHHS), William Mosher (NCHS), Susan Newcomer (NICHD), Martin O'Connell (Bureau of the Census), Stephanie Ventura (NCHS).

Non-Government Members: Robert Blum (University of Minnesota), Laura Duberstein Lindberg (The Urban Institute), Irv Garfinkel (Columbia University), Ron Henry (Men's Health Network), Waldo Johnson (University of Chicago), David Landry (The Alan Guttmacher Institute), William Marsiglio (University of Florida), Warren Miller (Transnational Family Research Institute), Ronald Mincy (Ford Foundation), Kristin Moore (Child Trends, Inc.), Frank Mott (Ohio State University), Constance Nathanson (John Hopkins School of Hygiene and Public Health), Joseph Pleck (University of Illinois at Champaign - Urbana), Barbara Sugland (Child Trends, Inc.), Koray Tanfer (Battelle), Elizabeth Thomson (University of Wisconsin), Arland Thornton (University of Michigan), Linda Waite (University of Chicago), Ken Wolpin (University of Pennsylvania)

Conceptualizing Male Parenting:

Chairs: Randal Day (Washington State University), Michael Lamb (NICHD) and Jeff Evans (NICHD).

Government Members: Marie Bristol, (NICHD), David Arnaudo (Office of Child Support Enforcement, DHHS), Marie Bristol (NICHD), Natasha Cabrera (NICHD), Gontran Lamberty (Maternal Child Health, DHHS), Ken Maniha (Administration of Children and Families, DHHS).

Non-Government Members: Sanford Braver (Arizona State University), Vaughn Call (Brigham Young University), Vivian Gadsden (National Center on Fathers and Families/University of Pennsylvania), Angela Greene (Child Trends, Inc.), Wade Horn (National Fatherhood Initiative), William Marsiglio (University of Florida), Elizabeth Peters (Cornell University), Mercer Sullivan (Rutgers University), Sharon Landesman Ramey (University of Alabama at Birmingham), Malcolm Williams (National Fatherhood Initiative).

Methodology:

Chairs: Andrew Cherlin (Johns Hopkins University) and Jeanne Griffith (National Science Foundation).

Government Members: Caroline Harlow (Bureau of Justice Statistics), Betsy Martin (Bureau of the Census), Linda Peterson (NCHS), Clyde Tucker (Bureau of Labor Statistics), Jerry West (NCES).

Non-government Members: Sandy Hofferth (University of Michigan), Sara McLanahan (Princeton University), Elaine Sorensen (Urban Institute), Jim Sweet (University of Wisconsin)

Targets of Opportunity and Tradeoffs:

Chairs: Linda Mellgren (ASPE) and Wendy Taylor (OMB).

Members: The Data Collection Committee of the Forum, (Jeff Evans (NICHD), Don Hernandez (Bureau of the Census/National Academy of Sciences), David Johnson (Bureau of Labor Statistics), Robert Kominski (Census), Bill Mosher (NCHS), Deborah Phillips (National Academy of Sciences), Jerry West (NCES); Kenneth Bryson (Census), Lynne Casper (Census), Gordon Lester (Census), Richard Jakopic (Administration on Children and Families, DHHS).

APPENDIX B

**INTEGRATING THEORETICAL PERSPECTIVES ON GENDER,
UNION FORMATION AND FERTILITY**

Laura Duberstein Lindberg
The Urban Institute

Constance Nathanson
Johns Hopkins University

Joseph Pleck
University of Illinois at Urbana-Champaign

Kenneth Wolpin
University of Pennsylvania

Prepared for NICHD Workshop “Improving Data on Male Fertility and Family Formation” at the Urban Institute, Washington, D.C., January 16-17, 1997.

Introduction

The social sciences offer no unified and accepted theory of union formation and fertility. This paper delineates salient theoretical approaches area in three traditions--- economics, social demography, and social psychology. Our particular focus is on what existing theories of union formation and fertility say about gender and the relative roles of men and women, whether explicitly or implicitly. Specifically, these reviews share common concerns with two factors---how gender-specific characteristics are theorized to influence behavior, and the relative roles of men and women in decision-making. Our purpose is not to be perform an exhaustive review of existing theories, but to reflect on key perspectives in light of their approach to gender.

Economic Perspectives on Marriage, Fertility and Gender

It is a commonly held, but not universal, view among economists working in the demographic area that fertility can be analyzed within the choice-theoretic framework of neoclassical economics. The assumptions of that framework are (I) that the actors have a well-defined set of preferences, (ii) that they face limited resources or, more generally, face a well-defined opportunity set, and (iii) that they make optimal decisions in the sense that there are no other decisions given their current state of knowledge that would make them better off (from their own perspective). My very brief review of the economics literature of theories of fertility is restricted to this framework (for a comprehensive review see Hotz, Klerman, and Willis, 1996). I will be simplifying to make the essential points relevant to our task.

At the most fundamental level, economic models of fertility can be viewed as a standard application of the theory of the consumer. However, the treatment of fertility behavior as a consumer choice problem has been mindful of the unique features of that behavior (children are not potatoes), which has led to important synergies with theories of time allocation, household production and human capital investment. The economic modeling of fertility has been an active area of research, incorporating advances in economic theory more generally. Thus, static lifetime formulations have given way to life cycle dynamic models. More recently, there has been increasing concern about applying individualistic models of behavior to the household as if the household was the elementary decision-making unit. This concern has given rise to new approaches to modeling household decision-making that recognize the saliency of the individual decision-makers who comprise the household (Chiappori, 1992). These new developments are just now being incorporated into the modeling of fertility. It is best to view economic modeling of fertility behavior as work in progress.

The Standard Static Lifetime Model:

Treating children as if they were no different than potatoes leads to few useful insights and has the unappealing requirement that to be consistent with observation, children must be inferior goods, i.e., like potatoes, one consumes less of them as income rises. In addition, unlike potatoes, for which there is an unambiguous market-determined price, the “price” of a child is less clearly interpreted (it is literally only the birth and maintenance cost). For these reasons, the first serious attempts at modeling fertility behavior incorporated two important extensions: (i) allowing for parental choice about the “quality” (which can be purchased at some fixed cost per unit) as well as the quantity of children (Becker and Lewis, 1973) and (ii) modeling child quality as a commodity that is “produced” by purchased market goods (e.g., schools) and parental time (Willis, 1973). With some additional assumptions, both of these extensions to the model provide an explanation for the observed negative income-fertility correlation that does not rely on children being inferior goods.

Life Cycle Dynamic Models:

The static lifetime model provided the foundation for studying features of the fertility process that go beyond the choice of the lifetime quantity (and quality) of children. In itself, the static formulation is silent about the timing and spacing of children and the relationship of childbearing to other life cycle household decisions. Life cycle dynamic models pose the decision problem in a sequential framework in which the household responds to the evolution of events that are unknown *ex ante*, allowing for sequential decisions to be made about: (I) contraception; (ii) time allocation (to work and childrearing); and (iii) consumption (see e.g., Hotz and Miller, 1988).

Almost all extant economic models of fertility, static or dynamic, treat the household as having a single set of preferences. To the extent that an alternative interpretation has been provided, it has been to consider the woman as the unit of analysis and ignore or treat only superficially marriage and divorce. However, the fact that non-marital fertility now accounts for about 30 percent of all births in the U.S. implies that the standard models are inapplicable to the study of the childbearing decisions of a sizeable part of the population as well as to the study of public policies, such as welfare reform, that attempt to influence those decisions. On the other hand, economic models of marriage, while identifying children as an important aspect of the gains from marriage, have not rigorously incorporated fertility decisions.

Recent work in consumer theory models household members as having distinct preferences and the allocation of resources within the household as the outcome of their interactions. In this setting a household with a single member is simply a special case of a household with many members. To date, there has been only one attempt to apply this type of model to the specific case of non-marital childbearing (Willis, 1995). I will first outline the basic formulation and its implications, and then discuss possible extensions.

The Willis Model:

Willis assumes a static model in which men and women each have preferences over the number and quality of their children. For generality, their preferences may differ, but there is no need that they do nor that one sex systematically cares more about the quality of their children. What distinguishes men and women is that women can bear only a limited number of children while men can bear an indefinitely large number and that men do not always know the identity of their children. Child quality is a collective good, i.e., one parent's enjoyment does not diminish that of the other parent.

First, consider a woman who is deciding on whether or not to bear and rear a child as a single mother (for exactness Willis considers the case of a woman having artificial insemination from a sperm bank). As in the static lifetime model, there is a fixed cost of a unit of child quality. Given some simplifying assumptions, the woman will have a child if and only if her income exceeds some minimum value. If she decides to have a child the quality of the child will depend positively on her income and negatively on the price of purchasing child quality.

Next, imagine that paternity is established and ask whether the father is better off if he is not forced to provide support. The answer obviously depends on his preferences. Clearly, he is more likely to be better off the higher is the quality of the child, i.e., the more the mother spent on the child from her own resources. Suppose that the father is better off. Then, the man and woman can both be made better off by pooling their resources, i.e., by getting married. The result is due to the assumption that child quality is a collective good; loosely speaking each of them gets to “consume” the entire child quality but doesn’t have to pay the full amount. Moreover, the level of child quality is higher if resources are pooled.

But, there is nothing in the model that requires that the gain from the collective good be obtained within a marriage or even a cohabitation. Willis appeals to an extra-model assumption that marriage facilitates the coordination necessary to ensure the efficient allocation of child expenditures. He also develops a non-cooperative solution in which the father makes an optimal voluntary transfer, where the father takes into account that some of the transfer will not be spent on the child. Because of this, expenditures on the child will be less than in the cooperative marriage solution.

But, note that in Willis's model, the father (and mother) are better off as well if they are married. So why would a man choose out-of-wedlock fatherhood? Willis's argument, rigorously demonstrated, is that what the father loses in child quality can be made up in quantity, i.e., the father may be better off having many "low quality" children by different women, where he contributes little if any resources.

Willis then combines this analysis with a model of the marriage market in which there is income variation within the sexes. He derives the following interesting case. If females have high incomes relative to males and there are more females than males, then (1) males and females from the upper portion of the income distribution marry and bear children and (2) those males from the lower portion of the income distribution will remain single and father children from multiple women who also come from the lower portion of the income distribution. This is referred to as the "underclass" equilibrium.

Scope for further theoretical research:

The Willis model is a creative first step at modeling fertility that takes into account the separate, but intertwined, roles of men and women. There are clearly numerous potentially insightful extensions of the framework. For example, the model ignores such aspects of interactions as sexual pleasure and love, gains from co-habitation other than raising children, and the importance of proximity to children to the value of having children. Further, the model ignores other behaviors that are related to childbearing such as work, schooling, and welfare participation and the environment within which decisions are made is static and there is no uncertainty (e.g., from imperfect contraception). The framework admits to these extensions.

Data requirements:

We should not construct data sets that are specific to any single theoretical framework or that are designed to “test” specific hypotheses. As a corollary, the first dollars should be spent on obtaining good data of an objective kind on both sexes: longitudinal data on early sexual contacts, contraceptive use, characteristics of partners, pregnancies, birth outcomes, time and money resource transfers between unmarried parents, etc. Descriptive data of this kind will importantly influence future theorizing. We are a long way from thinking about rejecting theories that are anything but naive.

Social-Demographic Perspectives on Marriage and Gender

Most explanations of the current decline in the centrality of marriage depend on the benefits of marriage deriving from role specialization. This specialization into different areas is theorized to be the major benefit of marriage. Strong differences in sex-roles between men and women supported this division of labor, with men responsible for roles outside the home (employment, social status), and women responsible for roles within the home. As individuals' experience reductions in either the ability or desire to achieve this role specialization, their participation in marriage is theorized to decline. Sociology and demography often focus on two central factors theorized to reduce individuals' ability or desire for role specialization within marriage. Simply viewed, one of these explanations is female-oriented, while the other is male-oriented (Oppenheimer, Kalmijn, and Lim, 1997). This "orientation" refers to which gender's characteristics are believed to be driving the declines in the centrality of marriage. While the explanations differ in whether it is men's or women's characteristics that influence marriage patterns, they also vary in which gender is the decision-maker--that is, which gender responds to the characteristic of interest. Table 1 summarizes these theorized relationships, and they are discussed more thoroughly below.

The female-oriented approach posits women’s rising economic independence as an explanation for the declines in marriage (Cherlin, 1992; Farley, 1988). Although this economic independence is theorized to influence marriage through a variety of pathways, in most explanations women are the primary actors and their personal characteristics influence their own decision-making. Women’s economic independence reduces their economic need for marriage, diminishing the benefits they would gain from a marriage with traditional division of labor. Moreover, role theory points out that increasing normative acceptance and opportunities for employment also reduces the social incentives for marriage, by providing women an alternate social role to wife and mother (Scanzoni, 1975). Thus, employment opportunities are theorized to reduce women’s desire for marriage by giving them other means of obtaining economic and social status.

Table 1. Hypothesized Factors Influencing Marriage

Change in Economic Opportunity		Hypothesized Effect on Marriage	Actor / Decision-Maker	Mechanism for Influencing Marriage
<i>Men</i> Less	<i>Women</i> More			
	T	!	W	reduce economic need
	T	!	W	provide alternate social roles
	T	!	W	smaller pool of acceptable partners

	T	+	W	expanded pool of acceptable partners
	T	+	M	more attractive to potential partners
T		!	M	inadequate income for marriage
T		!	W	reduced supply of acceptable partners

The male-oriented approach emphasizes declines in men’s economic position as the central cause of the decline in marriage (Oppenheimer, 1994). There is a long theoretical tradition in research on marriage in Western society that focuses on men’s ability to establish an independent household as a key factor determining marriage timing (Hajnal, 1965). This theoretical perspective continues today, with the belief that men’s labor market position has a strong effect on marital timing.³ Specifically, researchers have looked to declines in the young men’s labor market position during the 1970’s and 1980’s as an explanation for the contemporaneous retreat from marriage. Since men have the role of economic provider in a marriage with specialization, reductions in their ability to enact this role also reduce the attractiveness of marriage.

Although this explanation relies on men’s characteristics, its proponents disagree on whether these characteristics influence the actions of men or women. Thus, this explanation ends up taking on two distinct forms. In the first, men self-evaluate themselves as having inadequate economic resources for marriage, and thus delay or do not marry. This theoretical orientation allows for variation over time or between individuals in men’s perceptions of what constitutes an “adequate” income for marriage.⁴ Regardless, in this model, men are the primary actors, who evaluate their own economic resources and then make decisions about the attractiveness of marriage. In the second form of this explanation, although the interest is in male characteristics, women are the primary actors. Wilson’s (1987) widely discussed explanation of delayed marriage and non-marital childbearing among African-American women is a prime example of this perspective. He argues that the deteriorating labor market status of African-American males impede their ability to provide stable economic support---and thus assume their traditional role in marriage. In turn, this reduces black women’s motivation to marry because of a local shortage in the supply of economically attractive men. Thus, men’s characteristics are theorized to influence marriage by altering women’s decision-making.

Wilson’s work is one example of theories about the functioning of the “marriage market.” Traditionally, the marriage market has been theorized to function to maximize role specialization. In traditional models of the marriage market, men and women choose

³Easterlin (1978, 1987), with his theory of the effects of relative cohort size, has been an influential proponent of the thesis that young men’s labor market position has a strong influence on marital timing, as well as fertility. Although Easterlin’s specific views have fallen out of vogue, there remains strong theoretical interest in the influence of men’s economic well-being on marriage formation.

⁴One perspective is that men have increased the amount of income they think is necessary for a family to compensate for their increased taste for personal consumption and self-fulfillment.

partners based on different criteria. Since women's gain from marriage as theorized to be economic and status-oriented, a woman is expected to want a partner with the best opportunities for income and social status. Men, on the other hand, get benefits from marriage in home production and choose partners accordingly, placing greater emphasis on physical attractiveness. Changes in women's and men's economic opportunities influence their role in the marriage market. For example, if the marriage market functions to maximize role specialization (through comparative advantage), then women need to find men with greater economic opportunities than their own. Therefore, women's increased income or education would result in a smaller pool of potentially eligible partners, thus creating a barrier to their marrying, or necessitating an increase in their search time and thus delaying age at marriage (Mare, 1991; Lichter, 1990).

What if the marriage market is not operating to achieve the best matches for role-specialized marriages? Two sets of research findings suggest that the marriage market is undergoing changes. First, recent research finds that men increasingly prefer to marry economically attractive women (Goldscheider and Waite, 1986). Thus, women's expanding economic opportunities may serve to *increase* their opportunities in the marriage market by making them attractive to a larger pool of men (Lichter et al., 1992). Second, an iconoclastic view suggests that women's increased economic independence may expand, not limit, their pool of potential mates by allowing them to "afford" to marry less compensated males---presumably with personal characteristics other than economic achievement that they value.⁵

To summarize, much attention has been given to two alternate factors that may be driving the declines in marriage ---women's economic opportunities, and men's economic opportunities. Both of these factors are theorized to influence marriage by altering the benefits of role specialization. There are strong advocates on both sides, and the question of which factor has been the dominant force is still unanswered. In part this debate reflects the problem that although marriage involves two actors, research often explains only one actor's decision to marry. This is both an empirical and a theoretical difficulty. Marriage requires consent and participation from both sexes. Non-marriage can result from either, or both, sexes reluctance to marry. Yet many of the factors considered in analyses of the marriage market can be interpreted as indicating a preference for marriage, as well as the individual's "marriageability." For example, do men's declining economic resources indicate their reduced attractiveness as potential mates, or a decline in their preference for marriage? As Goldscheider and Waite (1986) point out, these interpretations are mutually reinforcing and thus difficult to sort out. Our empirical observations of marriage incidence may not be very helpful in sorting out which gender is more responsible for changes in marriage (or differences between groups).

⁵This view is supported by the findings that the proportion of married couples in which woman earns more than man has increased from 10 percent in 1980 to 15 percent in 1990 (Biddlecom and Kramerow, 1995).

There is a need for new theoretical and analytical models of the marriage market that incorporate issues of both men and women more directly. To date, most analyses that model the marriage market do so from the perspective of women, i.e. they examine the demographic and/or qualitative aspects of the pool of eligible men that are associated with differences in the timing of marriage for women. It would be worthwhile to add to this perspective by modeling the characteristics of women that may be associated with men's behaviors in the marriage market (Lichter et al., 1992). Analytically, this becomes easier to do if men are increasingly valuing the same types of characteristics, such as employability and income, as women, instead of physical attractiveness or other "traditional" criteria. The former are far easier to measure in survey, or even aggregate level data, and lend themselves more to the types of analyses that social scientists are most familiar with. Empirical model that include the motivations and behaviors of both sexes are needed to be able to fully test the competing hypotheses discussed here. Focussing on marriage and union formation will assist in connecting the growing study of "fatherhood" to underlying demographic processes (Goldscheider and Kauffman, 1996).

As a concluding note, there is a need to reconsider our traditional adherence to a specialization-trading model of marriage which emphasizes gains from an underlying sexual division of labor between spouses (for arguments against this model, see Oppenheimer, 1994). The central challenge to our understanding of current and future trends in marriage and family formation may be the declining significance of sex-role specialization for marriage (Goldscheider and Waite, 1991). This decline not only alters the potential benefits of marriage, but it also alters the functioning of the marriage market. Cohabitation may be providing different types of unions in which choices of partners may not be well-explained by sex-role specialization. Changes in gender-role attitudes may alter individuals' behaviors within market, and their search for a marital partner. Our adherence, whether explicit or in our underlying assumptions, that marriage can be understood from a specialization model, may limit our ability to explain and understand contemporary patterns in family formation. The specialization model may continue to provide important insights, but it can not be allowed to constrain our understanding of the dramatic changes occurring in American family life.

Social-Demographic Perspectives on Fertility and Gender

The following very preliminary thoughts on this topic build on two earlier papers: first, a paper by Nathanson and Schoen, "A bargaining theory of sexual behavior in women's adolescence," published in the proceedings of the 1993 IUSSP International Population Conference in Montreal and, second, a recently completed manuscript by Schoen et al., titled "Why do Americans want children?" Underlying these papers is the notion that sexuality (Nathanson and Schoen, 1993) and children (Schoen et al., ?) constitute resources which individuals use purposefully in pursuit of goals (economic and/or social security, status, and the like) subject to structural and cultural constraints.

The more recent paper questions why Americans (or members of industrialized societies generally) continue to have children given their direct and indirect (opportunity) costs. To account for this phenomenon, the resource value of children is conceptualized

(following Coleman, 1988, 1990) as a form of social capital: "Individuals and couples have powerful non-instrumental interests in social integration with family and friends and in the social and emotional help and support that social integration brings." Gender differences in the resource value of children as social capital were not addressed theoretically in this paper. The earlier paper is focused primarily on the sexual behavior of adolescent women, but does suggest a number of variables relevant to gender differences in the value of fertility-relevant resources: men's and women's economic opportunities; sexual and family ideologies affecting the relative value ascribed to women's sexual and domestic resources (by both women and men); social class and race.

Among the only detailed pieces of empirical research (of which I am aware) that lends itself to analysis of gender differences in the forgoing terms is the chapter in Elijah Anderson's book, Streetwise, titled "Sex codes and family life among Northton's youth" (1990:112-137). Streetwise is an ethnographic study of two adjacent inner-city communities, one ethnically and racially mixed and the other--Northton--black and poor. I propose, first, to examine whether the conceptual frameworks our research group has proposed make sense in light of Anderson's data and, second, to suggest, more speculatively, the changes in gender differentials our frameworks would predict, given systematic changes in the empirical circumstances described by Anderson.

The premise that sexuality and children are resources purposefully employed in pursuit of individuals' particular goals receives strong support in Anderson's account. The goals themselves are structurally highly constrained and differ profoundly between young men and women. The fundamental constraint, according to Anderson, is absence of economic opportunities for men: "The lack of family-sustaining jobs denies many young men the possibility of forming an economically self-reliant family" (112). Without viable alternatives in the job market, young men seek status in the recognition and support of their male peer group. "To many inner-city black youths, the most important people in life are members of their peer groups. They set the standards for conduct, and it is important to live up to those standards" (114). Peer group standards emphasize "sexual prowess as proof of manhood, with babies as evidence" (112). While sexual conquests are a status symbol, emotional commitment to the young woman may, on the other hand, be taken by peers as a sign of weakness. Anderson argues that young women's goals are quite different: they "dream of being the comfortable middle-class housewife portrayed on television," and offer sex as a gift in the hope--often fostered by the young man--of parlaying the gift into some semblance of the dream.

While sexuality is employed as a resource by both sexes, pregnancy and the resulting child are more clearly positive resources for the young women than the young men Anderson describes. From the young woman's perspective, pregnancy may, at the very least, increase her partner's ties of obligation. A child brings adult status, the admiration of peers, and (in the old days) a welfare check. From the young man's perspective, pregnancy and a child are potential traps, increasing his economic burdens, decreasing his freedom to come and go as he pleases, and incurring the disesteem of his

peers for being "fooled."⁶ As a consequence, the fact of fatherhood is frequently contested. It is an important point that pregnancy and motherhood are self-evident, fatherhood is not. Under circumstances where rights of inheritance are important and children bring major social and economic rewards, men go to considerable lengths to insure their paternity. Indeed, it has been argued that demand for this insurance was a major factor in the development of patriarchal institutions. Anderson describes circumstances at the opposite extreme: when paternity brings no rewards, men will be moved to deny it.

Indeed, perhaps Anderson has portrayed one end of a spectrum, in which sexuality is men's only social resource deployed to gain status in the eyes of peers rather than partners or kin, and children are "social capital" only for women. An obvious prediction from Anderson's data--he makes this prediction himself--is that as men acquire "a job, the work ethic, and perhaps most of all, a persistent sense of hope for an economic future...the most wretched elements of the portrait presented here begin to lose their force, slowly becoming neutralized" (137). In other words, a conventional family life depends on the availability of economic resources to men. It is not clear where this leaves women. Anderson states that the young women he studied may see themselves as "having little to lose and something to gain by becoming pregnant" (127). This suggests that insofar as women perceive themselves as having "something to lose" by becoming pregnant, they are more likely to take precautions against it, hardly a new idea.

Goldscheider and Kaufman in their recent paper, "Fertility and commitment: bringing men back in" (1996) make two interesting and relevant points. They suggest, first, that declining commitment to parenthood is characteristic of men in general, not just black men in the ghetto: "most of the retreat from children has been on the part of men. There is evidence that men increasingly view children and fatherhood primarily as responsibility and obligation rather than as a source of meaning, happiness, or stability" (90).⁷ Second, they observe that "trends that increase male involvement (in children's lives) may decrease female autonomy in decisions about whether to bear children and how to raise them" (96). In other words, women's empowerment and male involvement in childbearing and childrearing represent a trade-off.

Both Anderson's and Goldscheider and Kaufman's analyses are striking in their implications of conflict between the interests and goals of men and women. Increases in men's and women's economic opportunities may have opposite consequences for their commitment to children; increases in women's empowerment may be at the cost of male absence. Despite this emphasis on conflict and on costs, both men and women continue to intend and to have children. We have advanced the notion of children as social capital to account for this phenomenon. Perhaps one of the things that happens at higher levels

⁶Clearly, not all young men correspond to the grim picture painted here--Anderson does not give percentages. His point is that the worse young men's economic prospects, the more likely is this picture to correspond to reality.

⁷Given this analysis, it is striking that data from the NSFH presented in the Schoen et al. paper show very little gender variation in fertility intentions.

of economic opportunity is that the social ties generated by children become a more important resource for men without losing their value on this dimension for women.

Social-Psychological Perspectives on Fertility and Gender

The major theoretical perspective on fertility in social psychology conceptualizes fertility motivation as a function of the costs and benefits that individuals perceive in having a child (Seccombe, 1991). In various theoretical frameworks, these perceived costs and benefits are alternatively formulated as the value of children (Arnold et al., 1975; Hoffman and Manis, 1979), or as childbearing values and disvalues (Beckman, 1987), utilities (Townes et al., 1980), or attitudes (Davison and Jaccard, 1976). These models, of course, also posit a role for other constructs influencing the extent to which the childbearing cost-benefits will be reflected in intentions and/or behavior, such as alternative sources of benefits, barriers, and facilitators (Hoffman and Hoffman, 1973).

This cost-benefit model of fertility motivation provided the underlying conceptual framework for Arnold et al.'s (1975) milestone cross-national study of fertility and fertility intentions. Responses to the question "what would you say are some of the advantages or good things about having children compared with not having children at all?" were coded in 65 categories, organized around nine broader values derived from Rokeach (1960). In Hoffman and Manis's (1979) report on the U.S. data in the cross-national study, there was support for the cost-benefit model in that the specific satisfactions most strongly associated with fertility intentions were reported less frequently in the U.S. than in developing countries, but within the U.S. these satisfactions were cited more frequently in the demographic subgroups with higher fertility desires. In other cross-sectional analyses, a relatively small number of specific responses were associated with variations in desired family size. Higher desired family size was related to perceiving children as providing "something useful to do," making you feel like "a better person," and having economic utility.

At the same time, many other specific satisfactions were unrelated to number of children desired, e.g., affection, stimulation and fun, giving purpose to life, and immortality. And other work has found no relationship between the perceived values of children and actual fertility (Heltsley, Warren, and Lu, 1981). Hoffman and Manis (1979) noted many potential complexities in conceptualizing the association between childbearing's perceived cost-benefits and fertility. For example, some perceived benefits may be obtained by having only one child, with little marginal benefit accruing for additional children, while other benefits do vary with the number of children. The value of a later child (for example, as a companion to the first) may be different than the value of a first child. Some values might relate to desire for a child at a particular point in the adult's life rather than to simply the total number of children. Overall, these authors note that "it was not expected that the relationship between any particular value and fertility would necessarily be monotonic." (p. 592)

Use of the cost-benefit perspective on fertility motivation to understand heterosexual couple behavior presents several issues and challenges. An initial issue concerns gender differences in the perceived value of children. Research generally finds

that females report greater perceived benefits and lower perceived costs to having children than do males (Hoffman and Manis, 1979; Miller, ?). This finding is assumed to make sense, since bearing and rearing children are so emphasized in female gender socialization. There is indeed evidence that in both genders, perceiving greater benefits to having children is associated with traditional gender attitudes (Heltsley, Warren, and Lu, 1981). However, an alternate reading of gender socialization might lead us to expect that men, not women, would perceive lower costs to childbearing. And, Hoffman and Manis's (1979) finding that among African-Americans, men rather than women more often perceived stimulation and fun, and expansion of the self, to be advantages of having children, is also noteworthy--and unexplained--in the conventional gender interpretation.

A second issue concerns the relative influence of males and females in fertility decision-making. Small group research indicates that in mixed-sex dyads, men tend to be more influential than females (Aries, 1996). Some studies indicate that this holds true specifically for attitudes about contraception. For example, when members of college dating couples are asked individually to express their opinion about contraception, and then asked to write a joint opinion, the latter is more similar to the male's than the female's individual view (Gerrard, Breda, and Gibbons, 1990). However, the same study also showed that the couple's contraceptive behavior was actually more similar to the female's individual opinion. Beckman (1984) and earlier studies have also found that when members of married couples disagree about whether to have an additional child, the wife's preference is far more often the one actualized in later behavior, although the inclusion of husbands' preference and other husband variables does increase the predictive power of explanatory models for fertility. It should be emphasized that these findings may not be generalizable to other populations. While females may have greater control of contraception in college dating couples, this may not be the case in noncollege couples. The greater female control of fertility apparent in married couples may not be evident in nonmarried couples.

There appears to have been little recent investigation of why women generally have more decision-making influence over fertility, and factors associated with variation in each gender's relative influence. In older work, Rainwater (1965) found that wives' preference for smaller number of children is associated with "joint" as opposed to "segregated" conjugal relationships. There has been little consistency in research findings about the relationship between couples' patterns of decision-making influence and fertility preferences or behavior (Back and Haas, 1973). For example, in a Puerto Rican study, Hill, Stycos, and Back (1959) found no linear association between an attitudinal complex in males they labeled "machismo" (favoring early sex, high fertility, not using male contraception, domination of women) and couple's use of birth control. The highest scoring men on the overall attitude measure tended to be very young or very old, leading the investigators to conclude that their actual influence on fertility was minimal.

We can suggest several guidelines for future theory and research on social-psychological factors in fertility. First, motivation for childbearing and motivation for contraception have tended to be studied in separate literatures and in different

populations (married adults vs. unmarried adolescents). It is easy to uncritically assume that one is the obverse of the other, i.e., that low motivation for childbearing corresponds to high motivation for contraception, and vice versa. A more comprehensive theoretical approach is needed in which both constructs play a role, and in which it is recognized that individuals' motivations are not necessarily consistent. Such models need to take into account that the perceived costs and benefits of contraception are relatively immediate or short-term, while the perceived costs and benefits of childbearing are more distal and long-term. Conceptualizing how these costs and benefits vary as a function of individuals' contexts is also essential. The utility of social-psychological models will be increased, for example, if individuals report on the costs and benefits they perceive to childbearing for persons of different ages, for persons who are married vs unmarried, for persons who have completed vs not completed education, and the like.

Second, the conceptualization of fertility decision-making itself, and the role of gender in it, needs much further development. In the field of family studies, in recent years there has been a general retreat from the concept of marital (or relationship) decision-making influence (or power) because of the inability to find congruence between behavioral and self-report measures of this concept, and the inability to find congruence even between behavioral measures in different domains (Cromwell and Olson, 1975). Although these issues are problematic for the assessment and conceptualization of power as a general construct in close relationships, they do not need to be resolved in order to study decision-making influence over actual fertility behavior in its own right.

Summary

Although these essays represent the uncoordinated efforts of a multi-disciplinary group of social scientists, there is a strong commonality and complementarity in their central themes. At the more general level, there is consensus that marriage and fertility outcomes should be viewed in decision-theoretic terms at an individualistic level. Social science theories of union formation and fertility have not been sufficiently cognizant of the fact that there are multiple decision-makers. Within a theoretical perspective in which individual decision-makers are at the foundation, it is important to understand the distinct motivations and constraints faced by men and women (both within and outside of unions). However, because voluntary union formation and childbearing usually involve cooperation in an essential way, behavioral theories must also model the process by which men and women interact. In formulating such theories, these essays noted the importance of incorporating the following ingredients: (i) gender differences in the value of children and marriage that may be motivated by conflicting interests and goals of men and women in childbearing, (ii) differential and changing economic and marriage market opportunities of men and women, (iii) gender roles within marriage, (iv) investments in child "quality". It is encouraging to observe that recent theoretical work has begun to be produced in all of the social sciences represented by these essays to address these issues.

Recommendations

Theory both guides and is guided by data. It is therefore necessary that both theoretical and empirical research find support. As these essays suggest, disciplines do operate within different paradigms and data requirements while overlapping are not identical. There is common agreement, however, that high quality objective data should be collected on both men and women in parallel.

Recommendations

Theory and Research Needs

1. Any theoretical advances need to incorporate declines in gender-role specialization and increases in the direct and indirect costs of children---all of which traditional theories argue would diminish the benefits of marriage and childbearing.
2. Theoretical models of the union formation and fertility need to more explicitly address the separate, but intertwined, roles of men and women.
3. We need to expand the scope of our theories to assist in explaining less traditional family formation behaviors, such as non-marital childbearing and cohabitation.
4. More research is needed on gender differences in the value of children and marriage. This includes improved understanding of different, and potentially conflicting, motivations and constraints faced by men and women.
5. More work is needed to tease out the relative importance of differential and changing economic and marriage market opportunities for men and women.
6. Greater attention should be paid to changes in gender roles within and outside of unions. This needs to include greater attention to subgroup variations in gender role attitudes and norms.
7. More explicit attention needs to be given to each gender's motivation to invest in child quality, and their personal assessment of this concept.
8. We need to give greater research attention to the relative influence of men and women in fertility decision-making, and factors associated with variation in each gender's relative influence.

Data Needs

1. At this point, data sets should be collected to test the broadest range of hypotheses, without adherence to any single theoretical framework. Descriptive data will importantly influence future theorizing.

2. Data must be collected from men and women about key demographic behaviors, such as union formation and fertility. Samples need to be developed that include both dyads and individual respondents.
3. Self-reported attitudinal measures are important for developing an understanding of motivations and values.
4. Greater information about gender-role attitudes need to be collected. In particular, greater information about men and women's attitudes toward *male* gender roles need to be added to the more traditional measures of attitudes towards women's gender roles.
5. We cannot assume that survey measures developed for women have equal validity or reliability for men. Qualitative and exploratory studies will be important for identifying and testing appropriate measures of men's fertility and union formation attitudes and behaviors.

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APPENDIX C

THE MEANING OF FATHERHOOD FOR MEN

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Introduction

Family patterns are changing rapidly in the United States. The decline in marriage has been accompanied by a rise in divorce and a decline in the likelihood of marriage following a divorce, which has only been partially countered by the rise in cohabitation. Moreover, the traditionally very close link between marriage and childbearing has weakened, with corresponding increases in the proportion of children born out-of-wedlock, either in nonmarital cohabitation or outside of a union altogether. Such changes, inevitably, shift the roles of men and women, not only in relation to each other, but also in relation to their children. These changes in family patterns signal a weaker commitment of women to men and of men to women; a weaker commitment by the partners to their relationship; and very possibly a weaker commitment to their children.

It is evident from these documented trends that women, and disproportionately men, are increasingly rejecting the conventional roles and obligations of a traditional family. The rise in divorce and out-of-wedlock childbearing has been paralleled by low levels of financial and social support provided by absent fathers to their children. Conflicting evidence shows that, on the one hand, there are men who increasingly view children and fatherhood primarily as nothing but responsibility and obligation, and, on the other hand, there are men who emphasize the role of children as a source of meaning, happiness, and stability.

Research has also shown that children are increasingly seen as interfering with the spousal relationship (Veroff, Douvan, and Kulka, 1981). While young men and women in the U.S. claim to value marriage and children, their attitudes toward family formation, and the rising cost of child rearing appear to be in conflict with their increasing materialism and increasing aspirations for expensive consumer goods (Crimmins, Easterlin, and Saito, 1991). Importantly, adolescent males are significantly more likely than females to value such goods and rate owning such goods as very important, suggesting a higher priority of spending for themselves rather than providing for the expenses of a family (Crimmins, Easterlin, and Saito, 1991).

Before we proceed further, a few clarifications are in order. A man becomes a *father* when he has his first child; this status is fixed, such that, once a man becomes a father he is always a father. He may subsequently have more children, or his responsibilities and activities may change due to divorce, or children leaving home, or for other reasons, but he is always a father. *Fatherhood*, then, is a status attained by having a child and is irrevocable (unless an only child dies). In the contemporary research literature, the term fatherhood is used interchangeably with the term *fathering* which includes, beyond the procreative act itself, all the childrearing roles, activities, duties, and responsibilities that fathers are expected to perform and fulfill. Furthermore, while these definitions once implied *biological* fathers only, with the rapid changes in the family structure they came to include non-biological fathers as well. We follow the

common practice in the research literature and use “fatherhood” to include childrearing responsibilities and fathering activities as well, regardless of whether they are carried out by biological or nonbiological fathers.

The next point to explore is, whose concept of fatherhood we are interested. While there are several perspectives that are equally relevant e.g., the mother’s, the child’s the society’s, for the purposes of this document we, almost exclusively, focus on “the meaning of fatherhood for men,” as defined by men.

A final point is how to operationalize “meaning.” One approach is to examine attitude-driven dimensions of what men think and believe fatherhood means to them. Another approach is to focus on the behavior-driven aspects and to examine what men think they should be doing (e.g., parenting roles, responsibilities, duties), and what they actually are doing. Which approach is taken depends on which definition of fatherhood we adopt. If we stay with fatherhood as the status of being a father, then the meaning of fatherhood derives from the attitudinal perspective. If we adopt the definition of fatherhood that includes fathering activities, then the meaning of fatherhood includes the behavioral perspective as well. The common practice in the research field seems to be to tie the meaning of fatherhood to the roles men should play, often as defined by men, women, and children. We base much of what we say on this supposition.

The Knowledge We Have

Research and evidence on fatherhood is far more abundant now than it has ever been; thousands of research papers and articles on related topics have been published over the last quarter of a century. Several excellent reviews and compilations have summarized the literature rather comprehensively. We draw heavily from these reviews and a few seminal works to present a summary of what is known about the “the meaning of fatherhood for men.” In doing so, we emphasize two emerging themes: the changing role of fathers over time, and the arising of two seemingly conflicting trends -- the nurturing, caring, emotionally attuned father who enters fatherhood consciously and performs his duties conscientiously versus those who may not have wanted to become fathers, who deny paternity, who are absent from the home, and shirk their parental responsibility and obligations.

The Historical Account

It is clear from an essay by Demos (1986) outlining the changing role of fathers in western societies over the past several centuries that the pattern of change is not linear but much of it has occurred in the twentieth century. Further, the changing role of fathers is only a part of the larger changes in the American family, succinctly summarized by Cherlin (1981) and others (e.g., Thornton and Freedman, 1983).

In the traditional model of fatherhood, fathers played a dominant role in the lives of their children, assuming a broad range of responsibilities defining and supervising the children's development. Domestic control was largely in the hands of men; wives were expected to defer to husbands on matters of childrearing. A father's moral role persisted through childhood into adult life. His influence was pervasive and usually exceeded the mother's responsibilities over the child (Rotundo, 1985). In the beginning of the nineteenth century, with the shift away from an agrarian to an industrial mode of production, the paternal control over children began to erode. As men's economic roles increasingly drew them outside the home and into the market place, women extended their sphere of domestic influence (Filene, 1986; Lasch, 1977). An increase of affective ties within the family reshaped the nature of parenthood and parent-child relations (Shorter 1975; Stone, 1979). The change in the family and parental division of labor was the beginning of a shift in the balance of power within the family.

The spatial separation of work and home helped revise marital and parental roles. For fathers, this was the beginning of an almost exclusive emphasis on economic responsibilities, which naturally, curtailed the men's day-to-day contact with their children. Demos (1986) writes that the separation of work and family life led to the disappearance of certain key elements of traditional fatherhood (e.g., father as moral overseer), and to the transformation of others (e.g., father as role model). Men still continued to act as disciplinarians in the family, but their removal from the home weakened their tie to the emotional bonds that form between generations in a family (Rotundo, 1985). The father now derived his status from the outside world, from his place in the market place. His occupational standing, his economic power established not only his authority in the home, but his worthiness as a husband and father as well. With this movement from ascribed value to achieved value throughout the nineteenth century, an erosion in the role of the fathers began. Convincing evidence of this shift is the change in custody practices. Until about the mid-nineteenth century, custody following marital disruption was typically awarded to fathers; by the end of the century children increasingly remained with their mothers when marriages dissolved. Early in the twentieth century, the practice of granting custody to mothers was sanctified in the doctrine of "the tender years" which held that the children's interests were best served when they were raised by their mothers, whose parenting skills were ordinarily superior to those of their husbands.

This is not to say that fathers completely relinquished their authority. On the contrary some fathers were probably unwilling to cede so much of their children's supervision to the mothers and became more involved in the day-to-day upbringing of the children. It seems likely, however, that the number of these actively involved fathers declined throughout the nineteenth century (Filene, 1986), and a more distant and detached style of fatherhood role, restricted largely to the role of fathers as "good providers," emerged.

With the possible exception of the Depression and war years, when many men were unable to live-up to this image, the image of the father as good provider remained intact through the second World War years, until the men returned from the war (Benson, 1968). During the Depression years, the strict division of labor that existed heretofore was abandoned by necessity as women were forced to take up a more active economic role, and men were obliged to share domestic chores. But it seems this was a temporary setback, as the post-World War II period appeared to strengthen the traditional family by strengthening the gender-based division of labor in the family, despite expanding economic roles of women during the war years.

This domestic order remained basically unchallenged until the late 1960s and early 1970s when the confluence of a number of trends fundamentally transformed the family. Economists, sociologists, and demographers continue to debate the exact determinants of this change and argue on how much weight to assign to cultural versus structural factors. Feminist scholars contend that the domestic accord regulating the division of labor within the family was already problematic, long before the so-called feminist revolution. Barbara Ehrenreich (1983) argued that concurrent with, if not prior to, the reawakening of feminist consciousness men were experiencing their own resentments about the burdens of the good provider role. She contends that as early as in the 1950s men were gradually retreating from this role because they felt socially and emotionally imprisoned by the narrowly defined masculine role and were interested in shedding the exclusive responsibilities of providing for their families, independent of the feminist discontent. What followed, Ehrenreich argues, was a male revolt that occurred in tandem with the feminist revolution of the 1970s, both of which helped reorder domestic life and produced a family form singularly different from the traditional model that had emerged in the late nineteenth century.

In contrast to this weighty account of cultural discontent, economists argue that it was the economic expansion of service jobs and growth of wage rates for female employment that drew women into the labor force, and forced a change in the domestic order. Sociologists and demographers provide differing accounts based on declining fertility rates and increasing divorce rates as well as rising educational levels of women which made work outside the home more attractive than full-time mothering. Regardless of which explanation is more credible, it is clear that the changes in the family and the decline of the good-provider role came about when social structural changes converged with ideological shifts in gender roles. Furstenberg (1988) states that these changes were in effect sociologically “over-determined,” meaning that changes in the family and in the meaning of fatherhood would have happened even if some of the social structural or ideological changes had not occurred when they did.

The Contemporary Perspective

As we've stated above, the contemporary picture of fatherhood as reflected by the current research is one of Dr. Jekyll and Mr. Hyde. On the one hand we have the nurturant, caring, emotionally attuned parents who are changing diapers, reading bedtime stories, or shooting hoops with the kids, all the while bringing home the bacon. On the other hand we have men who deny their paternity, and we have absent fathers, fathers who are not absent but have no involvement with their kids, and men who shirk their obligations and refuse to support their children. What accounts for this discordant picture?

The contradiction emerges directly from the historical account we've just presented. As men escaped from the excessive burdens of the good provider role, they were also freed to participate more fully in the family. Yet, they had also been freed to flee from commitment and from family responsibilities altogether. To the extent that married men have internalized the "full participation" paradigm, when they divorce and typically are expected or able to fulfill only the "good provider" role, resentment sets in. This, then, can lead to total rejection of all roles (i.e., "If I can't have the fun part of the father role, then I don't want any"). Evidence for the flight from commitment and responsibility is provided by the decline in the marriage rate and the rise in the divorce rate. The parallel rise in cohabitation also reflects men's and women's unwillingness to commit to and support a traditional family. Let us briefly review what is known about the retreat from paternal obligations; then we shall review the evidence on the increasing involvement of fathers with their children and the consequences for children and spouses.

Eggebeen and Uhlenberg (1985) have documented the declining involvement of men in families between the 1960-1980 period using data from the 1960, and 1970 decennial censuses and the 1980 Current Population Survey. They estimated a 43 percent decline in the average number of years that men between the ages 20 to 49 spend in families with young children falling from 12.3 years on average in 1960 to just 7.0 years in 1980. Later marriage, reduced fertility, and increasing rates of marital dissolution have all contributed to this sharp decline. Eggebeen and Uhlenberg interpret these results to mean that the opportunity cost of fatherhood is rising as the social pressure for men to become fathers declines. In essence, fatherhood is becoming a more voluntary role that requires a greater degree of personal and economic sacrifice. Now, if this were the case, as more sacrifice is required, fewer men would assume this role, and those who choose to make this sacrifice will be a highly self-selected group among the most committed and dedicated. Yet, this view is not consistent with much of the available evidence. For example, we know that a growing proportion of couples who conceive out of wedlock elect not to marry (O'Connell and Rogers, 1984). There is a widespread reluctance among unmarried fathers to assume economic responsibility for the children they have sired. The proportion of unmarried men who contribute to the support of their children has declined over the past few decades. We also have evidence that many males simply do not even acknowledge the existence of children they do not

see or support. A majority of all men who are required to pay child support do not fully comply, and a significant proportion of men leave their wife or partner without any child support agreement or arrangement. Furthermore, often the amount of payment is so low that it only rarely pulls children out of poverty. More disturbingly, studies of men's ability to pay child support have found that most fathers could comply with court orders and still live quite well after doing so (Weitzman, 1985).

While there is a fairly common belief that men do not pay child support because of insufficient enforcement, the more realistic and intractable problem may well be that there is a very loose psychological attachment between noncustodial fathers and their children. Statistics on the amount of contact between noncustodial fathers and their children is alarmingly low, particularly after a lengthy separation (Mott, 1983; Furstenberg, 1991; Marsiglio, 1998). The provision of child support is also closely related to the amount of contact with the children, which in turn is strongly associated with men's socioeconomic position (Seltzer, Schaeffer, and Charng, 1989). Significantly, and surprisingly, support and contact figures for never married fathers appear to be as high as the figures for men who were once wed to the mothers. If these figures continue to hold, then there is not much advantage gained by the children of noncustodial fathers for having been born in wedlock.

Research on the more caring, nurturing, emotionally and physically involved fatherhood is no less abundant. The growing child-developmental literature on fatherhood has focused largely on the consequences of such involvement especially during infancy and early childhood for their cognitive and emotional gains. While it would be a seemingly obvious proposition to most of us, that fathers' consistent and substantial involvement in child care would benefit the child, this appears to have not been well established. The relationship between paternal involvement and children's well-being seems to be mediated by a number of other conditions that involve the father, the mother, and the child. In other words, increased paternal involvement does not automatically result in improved child outcomes. Nor is it clear whether the father's involvement provides unique nurturance that can not be as readily provided by substitute caregivers.

A more unresolved question is the extent to which fathers actually involve themselves in child care. It appears, from a variety of data sources, that most fathers still do very little child care, especially when the children are very young. To be sure, there has been a change in the meaning of fatherhood, as reflected in both the attitude and the behavior of fathers, largely as a result of a general shift in less gender-specific family roles (Thornton and Freedman, 1983; Stein, 1984). But, Pleck (1985) and others, who have done extensive research on this question, has concluded that most of these changes have been relatively modest. It appears that, especially among younger people, men have reduced the hours they spend at work in favor of home activities while women have followed the opposite course. There is a corresponding increase in the amount of time spent by men on activities that have traditionally been performed by women (Juster and

Stafford, 1985). Pleck's analysis of time diaries also show that fathers spend substantially more time in domestic and child care activities in households when mothers are employed, but that men still fall far short of assuming an equal load. More interestingly, men in families with young children do less than those in households with no children or with older children. Baydar and Brooks-Gunn (1991) argue that even when men do spend a substantial amount of time with their children, the quality of involvement is not high, and therefore fathers' involvement is not an important or necessary element of children's development. A number of others (e.g., Lamb, 1976, 1877; Gunsberg, 1982) argue that resident fathers do play a significant role in their children's growth and development. Evidence from studies of fatherhood after divorce or separation shows much the same pattern, except generally noncustodial fathers are found to be even more marginal. Typically, fathers, if they remain at the scene at all, play a recreational rather than an instrumental role in their children's lives. Clearly, the effects of a number of confounding factors need to be disentangled before we can get a clear picture of the magnitude of change in the fathering patterns and its effects on children. In sum, there seems to be compelling evidence of a change in the contemporary meaning of fatherhood for men, but not so much that men have become equal partners in parenthood

The Future of Fatherhood

The only thing we can say with some confidence on the current status of fatherhood research is that there is very little consensus and much of the work is heavily value laden. Having said that, we hasten to add, that the lack of consensus on the "meaning of fatherhood" among researchers is not surprising because there is no consensus among the fathers, the mothers, or the children, either. In fact, these discrepant views of fatherhood by the interested parties lie at the root of the political squabbles in the family arena. Furthermore, such differences are an important predictor of marital and relationship dissolution, as well as how successfully children are raised following such relationship transitions.

One thing is for sure, a change has occurred in the way fatherhood is viewed and practiced. It is hard to imagine a scenario that would restore the form of family that was common a generation or two ago. It is not only unlikely that the traditional roles could be restored, but also further changes will undoubtedly occur in the roles of women and men. For example, if the proportion of working mothers with young children continue to increase, there will be more pressure on fathers (or others) to share more of the child care. The real question is whether men's attitudes and behavior will fall in line (willingly or grudgingly) as they are increasingly pressured by their partners and the society at large to help out more, or whether will they simply flee. Convincing fathers to assume a greater share of child rearing responsibilities might prove to be a more formidable task when the children are not born and raised in traditional two-parent intact families.

There is a fair amount of agreement on the "flight from commitment," the male version of liberation (Ehrenreich, 1983), and the end of the "good provider" role, but not

on its “legitimate successor” primarily because it “has not yet appeared on the scene” (Bernard, 1981). Demos (1986) and Rotundo (1985) in separate assessments of the future of fatherhood express similar apprehensions about the growing trends toward absence of fathers from families and their apparent unwillingness to support their children when they live apart. Rotundo sees this as a dramatic defiance of the notions of “modern fatherhood” that is “consistent with “an extreme strain of male individualism that reacts to family responsibility as a quiet form of tyranny.”

The optimistic view in the research literature is one of a rising interest in fatherhood, and the emergence of a “new” father. This new father is androgynous and a full partner in parenthood. Not everyone seems to share this view. Rotundo and others question whether the androgynous fatherhood will emerge as the predominant model, even in the middle class where it seems to have been championed the most. For example, Lamb et al. (1987) distinguish three different aspects of paternal involvement in child rearing: *availability*, representing the lowest level of involvement; *interaction*, an intermediate level of involvement, and *responsibility*, the highest level of involvement. National level data indicate that while there has been a slight increase in the level of involvement, as late as at the end of the 1980s, paternal involvement in childrearing has remained dismally low (Lye, 1991). Fathers are *available* only a few hours a day, and certainly much less (roughly one-third to one-half as long) than are mothers; fathers rarely assume *responsibility*; and, fathers spend very little time *interacting* with their children, especially if they are girls.

We are inclined to agree with Furstenberg that two discrete male populations may emerge as we drift to a more voluntaristic notion of parenthood: those who embrace fatherhood and those who flee from it. It is also very likely that men will migrate from one category to the other throughout their lifetime. In doing so many men who may have abandoned their biological children may end up assuming paternal responsibilities for a new set of children, if not their own then someone else’s. Yet, this is not to say that they will assume equal responsibility in parenting.

A corollary concept that has emerged is that of “social fathering,” which is being commonly used in the literature to help explain why contact between noncustodial parents (usually fathers) and children typically decreases over time. This perspective suggests that biological ties to children become less important when the biological children live elsewhere; and further any children who do reside with the father (e.g., those from a remarriage) receive more attention. Seltzer and Brandreth (1994) show that the attitudes of nonresident fathers toward paternity varies by resident child characteristics rather than biological linkages. Furstenberg and colleagues suggest that biological parenthood may be giving way to social parenthood.

Theoretical Approaches

Much of the research on fatherhood is characterized by a conspicuous absence of a unifying theoretical framework. Researchers have borrowed liberally from psychology, sociology, social-psychology, child and adult developmental perspectives, and from economic theories to guide their work. Some of these approaches overlap to a great degree; yet, no one theory or conceptual framework stands out. Below we review a few of these approaches that are used more commonly and seem to be relatively fruitful.

Structural Functionalism

The “dual spheres” ideology is imbedded in one sociological perspective, structural functionalism, that assigns particular importance to the nuclear family form and its gender-based division of labor. Accordingly, in the homemaker-breadwinner ideology, the core element of the ideal family is the distinction of labor and authority between husbands and wives, and between parents and children. Further, the nuclear family is best suited to functions of childbearing and rearing, in which men are responsible to provide financial support for the family (the good provider role), and women are responsible for socialization and emotional stability of the children (Malinowski, 1913; Murdock, 1949; Parsons, 1955; Bernard, 1983). That is one important reason why early studies of the family tended to focus almost exclusively on the experiences of women, and continue to do so albeit to a lesser extent. Using this reasoning, the functionalist view would not predict that men would reject the expectations of the good-provider role. Yet we have seen the weakening if not the complete collapse of the good-provider role (Ehrenreich, 1983; Bernard, 1983).

Conflict Theory

A common thread that runs through many versions of the conflict theory is the acknowledgment of the struggle for power, including that between genders. Accordingly, men, in general, having an advantage over women in attaining socially- and economically-valued resources, manipulate the power gained with this access to perpetuate their dominance which is reflected in the gender-based division of domestic labor, including child care. In other words, men maintain their power over women by refusing to engage in the “woman’s job of parenting,” because in our society (and elsewhere) “childrearing” places one in a powerless position, while avoiding child-rearing results in power and prestige (Franklin, 1988). Conflict theory also specifies a class-effect and thus recognizes a gender-class interaction in the defining of the parenting roles and the meaning of fatherhood for men.

Gender Display and Hegemonic Masculinity

According to West and Zimmerman (1987), gender is a performed activity which is characteristic of situations and interactions. Based on cues and stereotypes, actors display certain genders within interactions, and perceivers interact on the basis of these expressions of gender. Actors are held accountable for displaying and reconfirming the “appropriate” gender in their interactions. Gender display typically involves highlighting the differences between masculinity and femininity. For example, doing housework has been a symbolic affirmation of women as good wives and mothers, while doing market work has been a symbolic affirmation of men as good husbands and fathers. Physical and symbolic segregation both emphasizes and perpetuates these social constructions of masculinity and femininity as different and unequal. Paid work for men outside the home, and housework and child care for women are symbolic markers for gender (Fenstermaker et al., 1991; Brines, 1994). Therefore, child care facilitates a display of femininity for women, while not performing child care activities facilitate a display of masculinity for men (West and Zimmerman, 1987, Pleck, 1977) Any deviation from the institutionalized norms of male provider role and female caretaker role invites the risk of negative social judgments; men and women are held socially accountable for displaying their gender appropriately (Brines, 1994). Further, the concept of hegemonic masculinity predicts a harsher judgment for men than women when they display a gender which does not correspond with the culturally-resonant stereotypes. Because masculinity occupies a more privileged position in relation to femininity, men are held more accountable for displaying the appropriate gender, and a man who violates the cultural expectations of masculinity during a display of gender may be sanctioned more harshly than a woman who violates the expectations of femininity (Connel, 1987). Hence, the resistance of men to child-rearing activities.

Identity Theory

Identity theory posits that a person’s behavior is a function of his conception of identity which derives from the positions he occupies in society (Kuhn, 1960). As applied in fatherhood research, the theory proposes that the key element in father involvement is the extent to which a father identifies with the status and roles associated with being a parent. In much of the research we have reviewed father’s parenting role identity is defined as the meanings attached to the status and associated roles of parenthood (usually self-described, but meanings ascribed by mothers or children have also been used). Further, the theory posits that these self-perceptions are organized in a hierarchical fashion such that, at any given point in time, some father roles are more important than others (Ihinger-Tallman, et al. 1993). The two key concepts of the theory, namely “identity saliency” and “commitment,” specify how individuals’ identity perceptions are formed and shaped. The greater the saliency the more likely are the fathers to engage in specific fathering behaviors and emphasize their fatherhood roles when other demands compete for their attention (e.g., time, energy, resources). “Commitment,” as used in the fatherhood research is harder to nail down, because its use

is confounded by multiple meanings which are not always clear (Stryker, 1980; Stryker and Serpe, 1982; Burke and Reitzes, 1991). The most promising of these appear to be one that links “commitment” to the number of persons, and the extent to which these persons expect or require him to hold the status of father and enact father roles; and the importance of these relationships to him. Other definitions include: the willingness to give one’s energy and resources to a particular course of action (Gecas, 1982); the obligation and promise to stay in and maintain a relationship over time (Tallman, Gray and Leik, 1991); and, a consistent line of behavior resulting from one’s evaluation of the balance of benefits over costs (Becker, 1981).

Social Learning Theory

Social learning theory emphasizes the way individuals develop gender-appropriate behaviors through the observation and imitation of models. Although there is very little research on how men learn to be fathers, there is a long research tradition that looks at the implications of differential reinforcement of boys’ and girls’ behavior. However, it appears from the research findings that children do not appear to imitate people of their own gender any more than the opposite gender, nor do they typically end up resembling the same-sex parent more than the other. It seems, therefore, that men are unlikely to construct their fatherhood identity on the basis of male role models, only.

Generativity

A more recent addition to the arena is the adult developmental perspective, a process which Erikson (1982a, 1982b) labeled as “generativity” -- caring for and contributing to the life of the next generation. There are three distinct types of generativity: biological generativity (procreation), parental generativity (parenthood), and societal generativity (productivity and creativity). The applicable equivalents in fatherhood research then would be biological or birth fathers, child-rearing fathers, and cultural fathers or social fathering. Parental generativity is the link between biological and societal generativity and involves carrying out the child-rearing activities that promote children’s ability to develop to their full potential (Snarey, 1997). This is also a reciprocal relationship in that generative parents receive opportunities to satisfy their own developmental need to be generative, in return for the support they provide for their children’s development.

Scripting Theory

Another late entry is the “scripting theory” developed and used by Gagnon and Simon (1973; and Simon and Gagnon, 1987) in their research on human sexual behavior. Recently, Marsiglio (1995b) discussed its use to conceptualize the relationship between different aspects of fatherhood. He proposes, after Simon and Gagnon, that there are three distinct but interrelated levels of fatherhood activity: cultural and subcultural scripting, interpersonal scripting, and intrapsychic scripting. At the first level, fathering

scenarios are provided at the societal level and include the basic normative guidelines for the fatherhood roles (LaRossa, 1988). At the second level, individuals interpret the expectations provided in the cultural scenarios and use these as guidelines to construct and manage specific situations when they interact with others (e.g., partners, children). At the third level, it is posited, fathers privately construct images about how they want to present themselves as fathers.

It is neither feasible nor desirable to confine the conceptualization of fatherhood to a single theory or framework. However, it is appealing to think that a unifying approach can lead to better research designs and help close the gaps in our understanding of many of the issues involved in human parenting in general, and fatherhood in particular. As of this date, there is little evidence of this actually occurring.

The Knowledge We Need: An Overview

It was relatively easy to summarize what we know about the meaning of fatherhood and the change in the father's role over the last several decades or more. The account of what we do not know is primarily a chronicle of the visible gaps in the research literature we reviewed. In this section we present an overview of some general considerations. In the next section we discuss some of the more specific research questions that require attention.

The recent research on fatherhood issues is clustered around three areas of focus: the symbolic representations, ideologies and cultural images of fatherhood; men's perceptions about their fatherhood identity and roles; and the ways in which resident and nonresident fathers interact with their children, and the extent of their involvement (Marsiglio, 1995a).

There are excellent discussions of symbolic representations, ideologies, and cultural images of fatherhood, but there seems to be no systematic work that separates the *ideal* from the *stereotypical* image of fatherhood, and either from the *actual* representation of fatherhood among the general public, and among relevant subgroups of the population. We also have very little information on how these images are shaped, and how they vary among subgroups of the population. For example, why does the public perception of black fathers tend to be more negative than those of white fathers? What are the public's perceptions and expectations of stepfathers, and why are they different than those for biological fathers? How do these standards of behavior get established, disseminated and processed? To what extent is class, independent of race, related to the fatherhood images and perceptions, and evaluation of fathers' actual behaviors?

Most of our information on men's beliefs about parental roles come from after-the-fact inquiries about their roles and responsibilities as fathers. We know much less about men's perceptions of their parental responsibilities, and the possible effects of

fulfilling or not fulfilling these obligations on the spouse, children, and themselves, before they have become a father (either when planning or expecting to become a father). Moreover, significantly fewer studies have compared the attitudes toward and perceptions of parental roles among stepfathers, unwed fathers, and noncustodial fathers. We also know little to nothing about the reciprocal effects of fertility intentions (e.g., unintended vs. planned) on these perceptions, and on the actual participation of fathers in parenting.

Also scarce is information on the effects of a father's own socialization, and the model portrayed by his own parents, as influencing factors on his conception and practice of fatherhood. This problem is confounded by massive intergenerational changes suggesting that societal values, independent of the micro family transitions, may be driving the changes in the meaning of fatherhood. The best that can be said from the scant evidence is that the effects are ambiguous. For example, those who adopt a nontraditional model of fatherhood are equally likely to have had fathers who were relatively unavailable, unloving, and powerless or have modeled themselves after fathers who were also highly participant in their own upbringing (Radin, 1981; Sagi, 1982).

The practical aspects of fatherhood are reflected by individuals' daily experiences. Although numerous studies in the last two decades have focused on various aspects of paternal behavior, relatively little seems to have been done to advance the conceptualization of the diverse social and psychological aspects of fathers' lives (Marsiglio, 1991, 1995a). Subjective aspects of fatherhood appear to be more poorly understood than the more objective behavioral aspects. Also neglected is research on the kind of paternal involvement which Pleck, Lamb and Levine (1986) refer to as the "responsibility" types of activities, including organizing and managing their children's lives (e.g., scheduling medical appointments, buying clothes, etc.).

Research on fatherhood has primarily considered the interaction of resident fathers with their children, and nonresident fathers' level of involvement, on the basis of frequency of contact, closeness, and financial support, and the effects of the level and type of involvement on the well-being of the children. We know more about these behaviors and their effects on children than we do about the factors that determine or account for the variation in the levels and types of fatherhood behavior beyond some associations with limited characteristics of the father, mother, and the child(ren). Also, while these types of analyses reveal aggregate patterns among children categorized in one way or another (e.g., biological father present, involved nonresident father, resident nonbiological father, etc.), they do little to clarify the social psychological mechanisms by which children differentially respond to diverse circumstances. In other words, we have little understanding of the process which translates father attitudes or behaviors into child outcomes, which fatherhood behaviors have the most positive "payoff," or what these most positive payoffs actually are.

As researchers and policy makers continue to concentrate on the effects family changes have on children, relatively less is known, and insufficient consideration has been given to possible consequences for mothers, and even less to consequences for fathers. Yet it seems, these changes in the family, and therefore changes in the role of fatherhood, are likely to have both direct effects on mothers and fathers, and also indirect effects on the children as a consequence of the effects on the parents. Also, if the emergent model of fatherhood is indeed androgynous, blending the traditionally masculine parenting activities with those which were traditionally feminine, then research needs to focus more on the effects of increased paternal participation on the father, and on the costs and benefits of increased participation for fathers (e.g., relationship with their children and wives, own personal development, commitment to their jobs and careers, etc). Further, we seem to have a relatively better understanding of the effect of paternal nonparticipation on children, but not what the costs and benefits may be for fathers who do not participate. In part, fathers are absent, or not participating, because, obviously, in some situations, there may be certain returns—economic and social psychological--to not participating in parenting. It might neither be politically correct, nor socially productive to document the benefits that may accrue from such nonparticipation to absent fathers and even to resident fathers who are not involved to any significant degree. But, it is productive to clarify why fathers may find noninvolvement to be positive. We need to reduce the ambiguity about the relevant effects for dads, moms, and kids, and accept the fact that not all effects have to be positive, and that there are tradeoffs.

Fatherhood research should take into account the diverging perspectives men and women hold on relationship, marriage, family life and so on, and how these divergent perspectives may define the symbolic meaning and presentation of paternal activities. That is, to the extent men and women develop separate gender-specific perspectives on parenthood, they would discount and distort each other's values, ideologies, and models regarding parenthood, not to mention the actual parenting behaviors each may have adopted (Marsiglio, 1995a).

Finally, it is important to consider paternal involvement and fathers' commitment to various identities as being both socially patterned and individualistic at the same time (Furstenberg, as cited in Marsiglio, 1995a). The opportunities and constraints fathers face in their fatherhood roles are often shaped by large-scale social processes. Therefore, patterns of paternal parenting behavior should be examined within the larger social context that is in part responsible for the specific role they end up playing. Particularly important are the gender and class dimensions in this sorting process (Marsiglio, 1995a). Some of the gaps in our understanding of the meaning of parenthood for men are described below more specifically, in the form of research questions.

Implications for Research

On the basis of a limited review of the existing research literature we have identified a number of research questions that need to be answered to better understand the meaning of fatherhood, its effects on the father's behavior, and the short- and long-term consequences for men, women, and children in a variety of family forms. Such family forms include not only the traditional intact families, but reconstructed families and nonmarital unions. Within the various family forms, research should further consider the roles and effects of non-biological parents, custodial and non-custodial, as well as resident and nonresident parents. The list of research questions we offer below is by no means exhaustive; it is only restricted by our limited synthesis of the many pieces of the puzzle. Further, the order in which they are presented does not necessarily imply an order of salience, priority, or urgency.

Life Cycle Stage Considerations

What is the effect of life cycle stage at marriage or at the birth of the first child on how men (and women) view and practice parenthood? It appears that men and women view parenthood differently at different life cycle stages. Consequently we would expect parenting behaviors to vary accordingly. In the little research available, the results are often contradictory. In younger marriages, the women's ideology appears to be more relevant, while in older marriages the man's ideology may take precedence. Yet other research shows that older male partners tend to have more liberal views regarding women's roles. All of this contradicts the notion that older men are more likely to be immersed in careers and therefore might be less involved in fathering. Clearly, life cycle stage issues need to be disentangled from employment and social class considerations.

What is the effect of the child's life cycle stage on the extent of father involvement? It has been noted by many that there is very little useful information about the extent to which a father *can* and *should* be involved in the child nurturance process during the early years of life. Research suggests that, historically, the infant - early childhood phase was essentially viewed as totally the mother's domain. More recently, with the emergence of "nurturant father" models, and with fathers being increasingly involved in their children's life at all stages, there is greater ambiguity on this issue. This has further implications for having legitimized paternal involvement with absent children when marriages (or the relationships) dissolve (as often they do) while the children are still quite young.

How does entry into parenting alter individual ideas about parenting? A research sub-theme, which is neglected in the literature, relates to the question of the extent to which the "meaning" of parenthood is sensitive to the parent status of individuals. In the limited literature on this issue, much of the research has essentially compared cross-sections of parents and non-parents. What is needed is more research which follows individuals from non-parenthood into parenthood and later. The question of the extent to

which notions about the meaning of parenthood are altered abruptly with entry into that status is inherently important because it can tell us a lot about attitude incongruence within the society -- between non-parents, parents with children, and those of us who have to some extent "forgotten" some of its joys(?). This understanding becomes of even greater importance during periods of rapid social change, where the recollections which one generation may have do not mesh closely with the actual experiences of their children's generation.

Gender, Racial/Ethnic, and Age-Linked Issues

To what extent are gender differences in parenting attitudes, beliefs, and behaviors socially appropriate? While fathers, on average, appear to be more involved with their children at all ages, this does not imply equal sharing in all child-related activities. To the extent that we operationally define the "meaning of fatherhood" in terms of actual father involvement, fathers (both present and absent) and mothers are not equal parents. The question, then is, how large is the discrepancy between what fathers and mothers in American society feel they should both do, and actually do? Furthermore, there appears to be a view that these possibly immutable gender differences should not be extinguished. Therefore, is it advisable for government programs or policies to encourage a completely egalitarian or identical notion of parenthood?

Can we usefully explain racial, ethnic, and class differences in the meaning of fatherhood? There appears to be a great amount of heterogeneity in the meaning of fatherhood that is not fully understood. Such differences appear to exist between as well as within racial, ethnic, and socioeconomic groups. Black-white-Hispanic distinctions reflect differing cultures, histories, and socioeconomic statuses. There is also considerable variation, for example, between generations of immigrants, between different Hispanics of different origins (e.g., Mexican vs. Puerto Rican vs. Cuban vs. other Central and South American), and between upwardly mobile blacks compared to second or third generation middle-class blacks.

Generally, public perceptions of black fathers tend to be more negative than those of whites fathers. It seems that black fathers are mostly perceived as inner-city, hyper-masculine, irresponsible men who do not get involved in their children's lives. Such perceptions are even more negative for black men who have fathered children out-of-wedlock. And there are many of them.

There is some evidence that the traditional notions about discrete family transitions do not reflect the experiences of black fathers and their children and that traditional definitions of residential status may underestimate the role of black fathers (biological or otherwise) in the lives of their children (Mott, 1990). Put differently, the prevailing definitions and conceptualizations of fatherhood may not adequately capture the cultural nuances in the presentation of fatherhood roles.

A number of explanations have been offered to account for the distinctive features of family formation and parenthood among black men, ranging from the experience of slavery and exploitation, traditional practices root in Africa, to racial discrimination, segregation, and persistent poverty. Undoubtedly, black men feel the rising expectations for fathers in our society and carry the burden of their personal histories and the weight of their culture as they become fathers. But we do not know how exactly these expectations impact the process of establishing and maintaining the many roles of fatherhood.

Are adolescent parenting issues unique? Adolescent fathers deserve special attention largely because, at a crucial time of identity formation, they are much less prepared or qualified for a paternal role. While this is true for adolescent mothers as well, fathers may have an especially difficult time. Consequently, many adolescent males seem rather ambivalent about fatherhood. Teti and Lamb (1986) suggest that this ambivalence is in part due to the sex-role learning that predispose adolescent males to avoid situations that require stereotypically feminine behaviors, like child care. Such tendencies to avoid feminine behavior and to embrace the masculine role may become exaggerated during adolescence as a result of identity struggles and peer pressure (Teti and Lamb, 1986). The ambivalence toward fatherhood among adolescent males may also be influenced by the drive to establish autonomy, which is typical of the teen years. At a time when partially breaking away from parents and achieving a sense of independence are developmental milestones, the restrictive demands of the paternal roles constitute a serious threat to this autonomy. Also, the ability to provide for the family is still one of the most important indices of masculinity in our society. Therefore, the limited ability of adolescents to provide adequately for their partner and the baby may be another cause of the response to fatherhood among adolescent males.

Although, teenage pregnancy and childbearing has been popular area of research for nearly three decades, our knowledge of adolescent parenting, particularly adolescent fatherhood, is surprisingly limited. The research that has been conducted on teen fatherhood is, not all too infrequently, confounded by methodological inadequacies, theoretical research designs, measurement instruments of unknown validity and/or reliability, and findings that can neither be replicated nor generalized. Few generalizations are possible regarding appropriate interventions which may be most suitable for the shorter and longer-term well-being of both parents and children.

The Effect Of Changes In Marriage Age and Parenthood Probabilities

How does the changing age at childbearing affect the meaning of parenthood? For a wide range of reasons, many of which have been detailed in demographic literature, women and men are beginning childbearing at later ages than those in the immediately preceding generations. To what extent, do these changes in childbearing directly reflect changes in how men (and women) view parenthood? Conversely, to what extent may changes in how individuals view parenthood reflect changes in the childbearing patterns?

Further, to what extent does the narrowing age gap between fatherhood and motherhood reflect an increasing similarity in the reasons for and the meaning of parenting for men and women?

How have any possible increases in childlessness among contemporary adult cohorts altered the meaning of parenthood? There is evidence of a recent decline in the proportion of adults (men and women) who will ever become parents. Has this presumed selection process altered in any important way the characteristics of those who do become parents? Put differently, are the parenting attitudes of otherwise comparable parents and non-parents perhaps more different from each other than was true a few years ago? What are the implications of this for the well-being of children? Are we now "selecting out" a better or worse quality person into the parenting subset?

The Effect Of Parents On Children

How does congruence between parental role expectations and role behavior affect child well-being? From the onset, we have speculated that the "meaning of fatherhood" is probably closely linked with the roles that fathers are willing to play in the parenting sphere, both inside and outside of relationships. Harmony between living-together and living-apart parents is at least partly contingent on the congruence that each feel exists between their role expectations and their role behavior. And this harmony has major implications for the well-being of their children. This is one way of saying that the satisfactory cognitive and emotional development of children both in traditional and disrupted families is probably closely linked with the extent to which the two parents have similar views about the role expectation for each present or absent parent. This does not mean that they should both expect to be doing the same thing; just that they should have agreement about what each parent should be doing. This suggests some testable propositions using available data sets. For example, in triads (mother-father-child) where there is relative congruence between what a mother would prefer the father do and what the father does are likely to have less acrimony and the children are probably less likely to have behavior problems (whether or not the parents are living together).

At the level of individual and family behavior, there are now available several large national data sets which permit one to try to tease out for population subgroups which specific paternal roles/behaviors may be more likely to translate into preferable child cognitive and emotional outcomes. These paternal-child interaction patterns, which can be used as proxies for more general notions of the "meaning" of fatherhood, can be incorporated into multivariate statistical models and perhaps suggest preferable and less preferable paternal behaviors for a variety of family forms. This leads into the next two points.

What does the formal structure of parental relationships imply for the parents' commitment and child well-being? The distinction between the meanings of marriage and cohabitation is not only central to the discussion of relationship dissolution, but is

central to interpreting child development issues. Within the context of this discussion, the key question is: Does the "meaning" of parenthood differ in important ways between married and unmarried couples? That is, is there a difference in the level of commitment to the partner and child while the relationship is ongoing and in the level of commitment to the child when the relationship falters. Because of the high probability of marriage dissolution and, in particular, dissolution of cohabiting unions, we need to have a better understanding of the differences between these relationship forms in terms of what the participants view as their parental commitments and obligations.

What do parental relationship transitions imply for the socioemotional and intellectual development of children? There is a large and growing body of literature which examines the consequences of relationship transitions for the development of children. Depending on a host of circumstances, results have tended to be ambiguous. In part, this ambiguity reflects to a considerable extent the extraordinary variety of situations these children find themselves in. Much of this variability is intimately linked with the "meaning of parenthood" notions. The expectations of and the meaning of fatherhood to the biological parents both before and after the transition are in all likelihood important explanatory inputs. Typically, available research finds little statistical interpretive value in visitation patterns as predictors of better or poorer child outcomes. It is worth speculating that if research could differentiate paternal role expectations (as anticipated by both parents) interactively with visitation patterns, the results might be more successful in finding the posited associations. Similarly, the presence/arrival of step-parents are non-neutral events. These are often found to have negative consequences, contingent on a number of characteristics, such as the child's gender or the parent's race. More research is needed on the role expectations of step-parents, and the meaning of step-fatherhood or more generally step-parenthood. In the broadest context, this draws somewhat on Cherlin's (1978) notion of there not being a useful normative structure which allows individuals coming into non-traditional family forms to have a firm grasp of what their role should most appropriately be.

What are the implications of linkages between custody status, child support payments and the meaning of fatherhood for the development of children? While the probability of making payments is heavily linked with economic viability, possibly it is also contingent on what the man views as the fatherhood role. First, his willingness to contribute may be related to whether or not he feels he had been allowed to play the father role which he had felt to be appropriate (e.g., how much contact or "instrumental contact" has he had or been allowed to have with his children). Additionally, and more directly, child support is likely to be linked with what he feels is the universal role of fatherhood, regardless of whether he is in residence with the child. Yet another question is, whether in joint custody situations, it is logistically and psychologically *possible* for both parents to maintain relationships with the child which are consistent with what they view as their parental roles. It appears that this may not even be feasible for the noncustodial parent, when only one parent has custody. In this case, the question is how this affects the likelihood of maintaining child support payments?

Historical Perspectives

How has the meaning of fatherhood changed over time? We provided a brief descriptive account of fatherhood in the 19th and early 20th Centuries. However, there is a dearth of information on the social-structural and ideological circumstances surrounding the fatherhood models of the past. We know little about how those circumstances sustained the prevailing fatherhood roles of the time. We also know very little about the “components” of the historical fatherhood model, including the subjective meaning, objective indicators, and how they are different from those currently observed. Documenting the elements of fathering in the past, and the social-structural context within which the predominant fatherhood model flourished may help better understand the ensuing changes in the social-structural context that eventually may have led to changing patterns of family formation and parenting. In other words, to be able to project the future of fatherhood, we need to understand the past and present patterns of family life, and the linkages between different styles of fatherhood and the various social, economic, and demographic conditions. This is particularly important within the context of race, ethnicity, and class differences in parenting, the antecedents of such differences, and the diverse consequences on all parties involved.

Data and Measurement Issues

Much of the research on fatherhood is based on data from nonrepresentative small cross-sectional samples, often of women. Major exceptions to this are the National Survey of Families and Households (NSFH), the National Longitudinal Survey Youth (NLSY), and the rather outdated National Survey of Children (NSC). There is an urgent need for new data collection efforts that focus specifically and systematically on fatherhood issues with extensive reports from fathers, mothers, and children. Preferably, such data collection efforts should be based on probability samples and a longitudinal design. It is also important that future surveys should attempt to properly cover, and when possible over-sample, certain ethnic groups as well as nonwhite and non-middle class low income families. It is essential that such surveys include the collection of attitudinal information on a continuous basis, given the sensitivity of attitudes to life cycle events.

Small nonprobability samples or convenience samples are also important. Even though such samples do not allow generalization to the population at large, they are extremely useful for hypothesis testing, measurement development, and exploratory work. Hence, such efforts should also be continued and encouraged. Particularly important are qualitative ethnographic studies that would enhance our understanding of the diverse meanings of fatherhood among ethnic and cultural subgroups, and allow us to formulate sound conceptualization and more accurate measurement of the many dimensions of fatherhood.

A basic methodological issue is the widespread reliance of fatherhood research on data collected from the mothers, on mothers' reporting of fathers' attitudes and behavior, and mother's reports of the quality of the relationship fathers have with their children. One would correctly assume that the validity of the reporting would be highly dependent on whether or not the father is resident, on the quality of the relationship between the mother and the father, and whether the fathering behavior of the men is congruent with the mother's ideology and expectations. The validity of such reports is also highly reliant on whether the mothers are reporting subjective or objective phenomena. And even the so called "objective" data may be colored by rationalization after the fact or indeed by transparent dishonesty. In this regard, when data are directly obtained from the fathers, as was done in the NSFH, the quality of the data can also be affected by the tendency to provide socially desirable responses, especially by nonresident and noninvolved fathers. Furthermore, a different type of measurement issue arises (Smith and Morgan, 1994) when discrepant reports of subjective phenomena (e.g., father-child relationship quality) are provided by different respondents (i.e., by father, mother, child, or another household member).

In general, fathers are less likely to participate in surveys than mothers, and nonresident fathers are less likely to participate than resident fathers. Therefore, self-selection bias can also affect the representativeness of specific subsamples of fathers, such as nonresident fathers in particular. The data and measurement issues we have mentioned here are not by any means limited to fatherhood research, but are indeed pervasive in social sciences.

Conclusion

A lot has been written about various dimensions of fatherhood, and there is still a lot more to be learned. As social, economic, and political conditions shift, the dynamics of family formation and parenthood also change, and the complex issues involved in these processes re-emerge to the forefront of many agendas. Consequently, the topic needs to be and is revisited, periodically. If the current focus, as evidenced by the extensive public debate and social inquiry it has generated, is any indication, then fatherhood is once again a "burning" issue in the United States.

Above, we tried to summarize, succinctly, what is known and what needs to be learned, on the basis of an extensive research literature. We also attempted to delineate some broad research areas, as well as some very specific research questions. As the debate on the past, present and the future of fatherhood continues, social scientists will continue to play a vital role in the this debate, for the foreseeable future. While their contributions to this debate may be varied, the sum of their work will continue to provide the foundation for a scholarly discourse and for a learned social policy.

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APPENDIX D

**FERTILITY MOTIVATION, DECISION MAKING,
AND INTENTION TO ENGAGE IN SEX, CONTRACEPTION,
PREGNANCY, ABORTION AND BIRTH**

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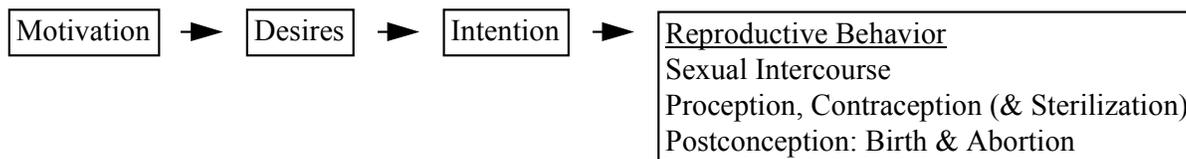
[This paper is under revision]

Fertility motivation, decision making, and intention to engage in sex, contraception, pregnancy, abortion and birth

Introduction

This review briefly covers the status of knowledge about males' motivation regarding reproductive behaviors. To provide an overall structure for our discussion we use a theoretical framework developed by Warren Miller to describe the psychological sequence that culminates in the reproductive behaviors under discussion--sexual intercourse, contraception, pregnancy, abortion and birth. Miller has used this framework to trace the sequence of how childbearing motivations lead to child timing desires, fertility intentions, proceptive and contraceptive behavior, and post-conception behavior. We think it provides a useful starting point for organizing our discussion of male fertility behavior because it identifies the central concepts that we must consider. We note, however, that another working group is looking at theoretical models in a more explicit way.

In the framework, the first key step in the sequence leading to behavior is the formation of *motivations*, defined as traits that dispose an individual to react in specific ways under certain conditions. Motivations, in turn, are activated as *desires*--what an individual wishes for or wants. Desires are then transformed into *intentions* to act. Intentions must take into account what other individuals desire and what can actually be achieved. Intentions effectively represent decisions made about courses of action. Intentions are subsequently transformed into *behavior* when an individual encounters a social situation that provides opportunities to fulfill them. The figure below provides a



schematic picture of the model.

The sequence shown in the figure helps us to understand reproductive behaviors and their outcomes. Broadly, there are three types of reproductive behaviors which will be the focus of our examination. First engaging in sexual behavior is a necessary precursor to fertility outcomes. Second there are conceptive behaviors which either contravene or promote conception. These behaviors include the use of contraception and actions to limit fertility permanently. They also include behaviors which are intended to result in conception and birth, which we call proception. Third, there are behaviors that occur after conception. A primary step at this time, if the pregnancy was not intended, is participation in the decision to carry to term or to terminate the pregnancy.

In this report we focus particularly on the psychological antecedents to these three broad categories of reproductive behavior. The figure demonstrates the scope of our task. It also demonstrates the importance of gaining better scientific understanding of motivation and the links between motivation, intention and actual behavior.

A nice feature of this model is that it acknowledges that the behaviors under study occur between two people. While motivation and desires describe the psychological states of single individuals, the formation of intention to act by an individual must take account of the motivation and desire of the other person in the dyad. Thus a full picture of fertility behavior requires that we understand the motivation and desires of both males and females: how these come into play in male-female interactions and how the transactions and related behavioral outcomes are modified by the contexts in which they occur. Indeed our working group believes that:

C *an understanding of the fertility behavior of males cannot be achieved if males are considered in isolation from their female partners.*

Therefore we look forward to the recommendations of the subgroup that is working on couple dynamics.

While the framework we have adopted is useful for characterizing and simplifying the psychological antecedents of reproductive behavior, it does not address the precursors of motivation. Motivations are a product of complex interactions between biological forces, ideology and cultural imagery about gender roles, and normative expectation fostered by family, neighbors, peers and other influential people. Indeed the causes of behavior are intricate and extremely difficult to unravel. We acknowledge that the framework is a useful point of departure, but that powerful drivers of behavior such as biology, social structure, proximal and distal context, and random events --alone and in combination-- may be important in exerting influence on male reproductive behavior at specific junctures.

C *an understanding of the fertility behavior of males cannot be achieved if the contexts in which male-female motivations and intentions play out are not considered.*

The structure of this brief review is to cover what is known about the stated attitudes and motives of U.S. males regarding the reproductive behaviors that we have described above. In addition the review will discuss what is now known about the formation of motivation regarding reproductive behaviors and about the links between motivation and these behaviors. Very little research has examined motivation or predispositions towards the reproductive behaviors we are examining: sex, procreation, contraception, and post-conception behavior. Little is known descriptively about the kinds of predispositions that U.S. males have towards reproductive behavior, the

development of motivation in individuals, or the link between motivation and behavior. Throughout we propose recommendations for further work.

Motivation to Engage in Reproductive Behaviors among U.S. Males

In the last decade there have been several scientific sample surveys⁸ that have collected some information about the motivation of males to engage in reproductive behavior. Least studied are motivations to engage in sexual intercourse. Most studied is motivation to contracept, especially to use condoms, primarily as a result of public health concern about the AIDS epidemic. Very little work has been conducted about men's motivation regarding sterilization. There is some information about men's attitudes towards abortion. Surprisingly little is available about males' motivation towards childbearing and childrearing.

Men's motivation to engage in sex. As noted above there has been little research describing the levels and character of men (or women's) motivation to engage in sexual acts. The only recent scientifically representative study of the heterosexual behavior of adult men and women was conducted by Laumann, Gagnon, Michael and Michaels (1994). This survey includes a few items about the level of appeal of a range of sexual practices and a measure of how often the respondent thinks about sex. It also contains measures of sexual satisfaction. The survey results document that males consistently rate sexual practices more appealing than females suggesting that there are gender differences in the level of motivation to engage in sex. Given the level of stereotyping that occurs about males' "readiness to have sex,"⁹ it would be illuminating to know more about actual levels of motivation and how they vary in the population. Therefore we recommend:

C Research about male (and female) reproductive behavior needs to include a focus on motivation to engage in sexual activity.

Moreover, we note that the instrumentation to measure these motivations may not be developed yet, therefore we also recommend that:

C Work to develop and test measures of motivation regarding sexual activity needs to occur.

We note that these recommendations may be politically problematic because there is no widespread public support for the scientific study of sexual behavior. However without this work there will clearly be a missing link in our understanding of male and female reproductive behavior.

⁸The National Health and Social Life Survey (Laumann, Gagnon, Michael and Michaels (1994), The National Survey of Men (Tanfer, Billy and Grady, 1993), The National Survey of Adolescent Males (Sonenstein, Pleck and Ku, 1989) and The AIDS Surveys (Catania et al, 1992)

⁹This is an item that Pleck (1993) included in his traditional male role ideology scale

C Further analyses of the existing data from the National Health and Social Life Survey and any other similar data sets should be conducted and disseminated to further the understanding of the scientific community and the public about the potential importance of these factors in understanding reproductive behavior.

We also note that it is also important to examine psychological precursors of the corollary behavior, abstaining from sex. Although there has been a quite a lot of research about factors that predispose teens to delay the onset of sexual activity, the underlying motives for this behavior have not been fully examined. Potential motives include fear of disease, worry about impregnation, religious and moral consideration, and possibly desire to conform to family and peer expectations.

C Further research is needed about motivation not to engage in sex.

Men's motivations to contracept. The AIDS epidemic has been the impetus for a substantial amount of work about men's attitudes towards condoms and their motivation to use them. Relatively few sexually active males are unaware that condoms are at least somewhat effective at preventing the transmission of HIV and other sexually transmitted diseases. This has been a critical factor in the recent increases in condom use that have been noted both in the U.S. and abroad. There has been little research that has investigated the extent to which condoms have been used to protect the male from infection as opposed to protecting the female from infection. It is generally assumed that when condoms are used for disease prevention, they are most often used by the male to protect himself.

There has been a substantial amount of work about attitudes that lead to increases and decreases in the use of condoms especially among teen males. Factors that are associated with less condom use include embarrassment about purchasing or wearing condoms and concern about the loss of physical sensation. Factors associated with more condom use included worry about AIDS and positive attitudes towards male contraceptive responsibility. (Grady, Klepinger, Billy and Tanfer, 1993; Hingson et al., 1990; Norris and Ford, 1994; Ramos et al, 1995; Sonenstein, Ku and Pleck,1997; Wulfert and Wan, 1993). Beliefs that their partners would appreciate their use of condoms were also associated with more condom use (Sonenstein, Ku and Pleck, 1997).

There is some tantalizing evidence that condom use among males is not totally driven by concern about HIV or other STDs. Research indicates that the main reason men report using condoms is actually for birth control, not the prevention of STDs. In the 1991 National Survey of Men (NSM), among those who reported using a condom in the previous four weeks, 49 percent reported that they used condoms for birth control only, and another 43 percent for birth control and STD prevention; thus, 92 percent say they use condoms for birth control, either by itself or in combination with other reasons (Tanfer, Grady, Klepinger, and Billy, 1993). The NSM data further indicate that use of

condoms only for birth control is particularly likely among white (55 percent) compared to Black (18 percent) men, among men aged 30 or older (60 percent) compared to younger men (41 percent), and among married men (83 percent) compared to single men (24 percent). Similar results are found in the National Survey of Adolescent Males. When males who used a condom at last intercourse were asked why they did so, 83 percent reported only to prevent pregnancy, 12 percent to prevent disease, and only 2 percent for both reasons (Sonenstein, Ku, and Pleck, 1997).

More attention must be paid to men's motivation to contracept and to avoid contraception, and their perceptions of their partner's motivation. Most of the existing research has concentrated on teenage males or slightly older cohorts. There is a need to understand better the contraceptive motivation of adult men, especially adult unmarried men.

C Further research is needed to understand the intersection of concern about STD transmission and about unintended pregnancy in male's motivation to use condoms.

Men's perceptions of contraceptive responsibility. There has been quite a lot of research documenting males' perceptions of the level of responsibility they have to contracept. These studies show that most men profess that contraception is a joint responsibility (Marsiglio and Menaghan, 1987; Sheehan, Ostwald, and Rothenberger, 1986). Studies have also attempted to assess other aspects of perceived contraceptive responsibility such as who should initiate discussion about contraception or who should pay for contraception. These studies find very high proportions of males reporting joint responsibility (Sheehan, Ostwald, and Rothenberger, 1986; Marsiglio, 1985; Marsiglio and Menaghan, 1987). Results from the National Survey of Adolescent Males confirm the results of prior studies using more limited samples suggesting that men believe they bear a high level of responsibility for knowing or asking partner whether she is using contraception, for initiating discussion about contraception if it has not occurred, for using contraception if he does not want a child, and for assuming joint responsibility for any child if he makes someone pregnant. For these four items, males' mean response is close to ceiling of the response scale. The exception is responsibility for helping pay for the partner's pill use, but even here, more than two-thirds of the sample agrees.

Predictors of endorsement of male contraceptive responsibility include egalitarian attitudes about women's roles, non-traditional attitudes specifically about men's gender roles, being older, and expecting to complete more years of education (Marsiglio, 1985; Marsiglio and Menaghan, 1987; Pleck, Sonenstein, and Ku, 1993).

C Studies are needed to measure better attitudes about contraceptive responsibility among males and to understand the relationship between gender role ideology and contraceptive motivation.

Men's motivation regarding sterilization During the last two decades sterilization has become the most widely used contraceptive method used among married couples in the US (Miller Shain and Pasta, 1991). In 1995, the National Survey of Family Growth reported that 41 percent of married women ages 15-44 or their partners had a sterilizing operation. Almost one quarter (24 percent) reported a tubal ligation and one-seventh (15 percent) said their male partners had been sterilized (Chandra, 1997). While the incidence of male sterilization has grown from the early 1970s, its increase has not been nearly as rapid as the increase in female sterilization. Indeed in 1973 rates of male and female sterilization were comparable. There has been some research on motivation of both males and females towards sterilization, most of it focussing on married couples (Chandra, 1997; Forste, Tanfer and Tedrow 1995; Miller, Shain, and Pasta, 1991). Most of this work has also examined couple dynamics. Decisions about who gets sterilized appear to result in the partner who is most motivated to end childbearing having the operation (Miller, Shain, and Pasta, 1991). Thus the fact that more women undergo sterilization may not necessarily reflect male's negative views of vasectomy so much as their female partner's positive motivation to end their childbearing.

C *More research is needed to understand the role of male motivation regarding their own sterilization and that of their partner. In particular it would be useful to have baseline data on men's attitudes towards vasectomy since the popular belief is that these are fairly negative.*

Men's motivation to impregnate. Although unintended pregnancy has been shown to be a major problem in the US, very little research has focused on the male perspective on this problem. Indeed male's motivation to impregnate women is not understood, although Marsiglio has given a name to the phenomenon, calling it "procreative consciousness (1988)." The National Survey of Adolescent Males has examined how men say they would react if they impregnated a partner without intending to do so. About one-third of males think they would have to quit school. Almost all males think they would have to give money to help support the baby. Hardly any males think that the availability of the options of abortion and of marriage means that unintended pregnancy is "not worth worrying about" or "not a big problem." Two-thirds say an unintended pregnancy would make them "very upset."

NSAM investigators also studied the role of attitudes about masculinity in these sexual and contraceptive behaviors in adolescent males'. The questionnaire asked respondents directly "If you got a girl pregnant now, how much would it make you feel like you were a real man?" In common parlance, males' perceptions of masculinity are recognized as central to understanding their sexual behavior. However, this apparently obvious factor has been relatively neglected in research. In our data, only 5 percent say that fathering a child would make them feel like "a lot" like "a real man," and adding in those who say that impregnation would give them this feeling "somewhat" yields only a fifth of the sample. Our later analyses indicate that experiencing pregnancy as validating their masculinity is an important contributor to risky sexual behavior (Pleck, Sonenstein,

and Ku, 1993), but it is nonetheless noteworthy that a relatively small proportion of males view pregnancy in this way and that these males may be more numerous in particular communities or subcultures.

Some analysts have noted the connection between some males' orientation to impregnation, their views of masculinity and their ability to be economic providers, a key male role in US culture. They have hypothesized that lack of access to economic opportunity leads disadvantaged males to perceive sexual prowess and potency as alternative means to establish their masculinity and status (Anderson, 1989, Gagnon and Simon, 1973, Majors; 1986.)

C *Research needs to be conducted about male's motivation to impregnate women.*

C *Measures of male motivation to impregnate women need to be developed.*

Men's motivation regarding childbearing Most men report a desire to have children at sometime during their lives (Mott, 1983, Marsiglio,1991). Psychologists have conducted a substantial amount of research on motivation regarding childbearing typically conceptualizing this motivation in terms of values and disvalues (Beckman, 1987), costs and benefits (Seccombe, 1991), utilities (Townes, Beach, Campbell and Wood, 1980) and attitudes (Davison and Jaccard,1976). Typically the measures focus on the positive or negative values assigned to particular consequences weighted by a cognitive component assessing the likelihood that the consequence occurs (Miller, 1995). In a study of married couples conducted by Miller men rated lower on positive childbearing motivation than women and higher on negative childbearing motivation; those who already have one child are also higher on positive childbearing motivation and lower on negative childbearing motivation. While a little work has looked at male motivation among married couples, there is little work done among other types of couples or among men in general.

C *The work done on men in marital relationships regarding motivation to have children needs to be developed more fully and also extended to include a more widespread understanding of men's orientation to childbearing in cohabiting and more transient relationships.*

Men's motivation regarding abortion There have been very few studies that have looked at male perspectives on abortion and their role in the abortion decision. Two surveys of college students indicated that almost all believe that men did not have the right to force a woman to have an abortion, but a man's opinion should be considered (Rosenwasser, Wright and Barber, 1987). A study of the partners of women obtaining abortions found that the majority agreed with their partner's decision. Almost 60 percent had positive feelings about the abortion, 13 percent had negative feelings and the remainder had mixed feeling (Shostak, 1984). Among married couples, men were found to have more liberal attitudes towards abortion than women and among both genders,

more acceptance of abortion was generally associated with negative childbearing motivation (Miller, 1994).

Given the number of unintended pregnancies that occur and that are either terminated or brought to term, it is important to understand better how males feel about abortion and how potentially these feelings play out when a child is born. The National Survey of Adolescent Males contains measures of attitudes towards abortion, and the most recent data include measures of whether abortion was considered when pregnancies occurred.

C More research is needed about the male partner's perspective on unintended pregnancy and his views of abortion as a potential resolution to such a pregnancy.

The Development of Predispositions

Since there is so little work done on motivation for reproductive behaviors among males, it should not be a surprise that we also know very little about the factors influencing the formation of these traits. Most work that has been done limits the findings to descriptions of the distribution of these traits in the population by race/ethnicity, age, and education levels

C Once we understand motivation better in the descriptive sense, the next priority should be to develop and test theories describing how motivations develop.

Biological Factors. The formation of traits which motivate individual behavior is "a long and complicated process in which life experiences act in conjunction with biological characteristics to form learned dispositions (Miller, 1995)." Let us start with the evidence about physiological factors. Human beings, like other primates, are programmed to engage in sexual activity. Although many investigators tacitly accept that sexual behavior has important biological underpinnings that affect "drive" or motivation, relatively little research has actually examined biological factors for their affect on behavior. Udry and colleagues have conducted the most systematic and extensive exploration of the possible biological determinants of age at first intercourse. In one series of studies (Udry and Billy, 1987; Udry et al, 1985; Udry, Talbot and Morris, 1986) they showed that whereas male sex hormones were related to sexual interest and motivation in both male and female early adolescents, the transition to first sexual intercourse was strongly predicted by these hormones for white males but not in white females. Newcomer and Udry (1984) also studied the relationship between the timing of mother's first sexual intercourse and the timing of their adolescent children's transition to non-virginity. A strong positive relationship was observed. Among female children this relationship was partly mediated by the daughter's level of pubertal development, suggesting a possible genetic basis for the intergenerational transmission. The evidence,

although quite sketchy, suggests that further research on the genetic and physiological underpinnings of sexual behavior are a promising avenue for future research.

C Little research that has examined the contribution of genetic and physiological factors to sexual behavior in either males or females. This is an important topic for future work.

Family Influences. The emergence of male and female orientations to reproduction appear early in development and seem to result from the complex interaction of genetics, physiology, individual history, family experience, and normative and cultural influences. Gender differences in orientation to nurturing children, for example, emerge at ages 4 through 6 (Miller, 1995). The characteristics of family of origin--family structure, religiosity, education levels, social class, and employment status of parents, for example--are known to be associated with age of initiation into sexual activity, contraceptive use, and experience with early pregnancies and births among teenage females and males.

C Given the early emergence of gender differences in motivations for reproductive behavior, it is important to support longitudinal studies that begin when the study participants are children and follow them into early adulthood. New technology makes it possible to potentially include bio-measures like genetic mapping, hormonal assays and the like. Longitudinal studies of both boys and girls are needed.

Peer and Community Influences. The social contexts that individuals live in provide continuous socialization into and reinforcement of the group's expectations regarding behavior. For example, the attitudes and norms of a young man's peers will likely influence his reproductive behavior. A particularly promising line of fertility research has examined the contextual effects of various normative environments on reproductive behaviors of both males and females (Billy, Brewster and Grady, 1994). These studies have been facilitated by two technological advances: (1) the development of linked data sets that are multi-level and provide measures of neighborhood, school, peer group, and polity characteristics and (2) a burgeoning literature on hierarchical statistical approaches.

C Efforts to create multilevel data sets should be supported. The feasibility of adding contextual measures to sample surveys that are currently freestanding should be explored.

Linking Motivation and Behavior

The most extensive work linking motivation to behavior has been conducted about contraceptive use. It has been common in recent years to analyze females' contraceptive choices as rational consequences of their perceptions and beliefs about contraception and pregnancy (Adler, Kegeles, Irwin, and Wibbelsman, 1990; Jaccard, Helbig, Wan, Gutman,

and Kritz-Silverstein, 1990). Research applying the same approach to males, however, has begun only recently. These studies indicate that whether or not males use condoms indeed varies with the attitudes, beliefs, and perceptions males hold about condoms and male responsibility in contraception (Pleck, Sonenstein, and Ku, 1990).

Clearly much work needs to be conducted before all the potential links between motivation and the full range of reproductive behaviors are fully explicated, for either males or females. The theoretical model presented at the outset of this paper provides a simplified picture of the processes that we need to understand better. Given the status of existing knowledge we think that the following priorities are important.

- C** *Measures of many of the key concepts are not yet fully developed for females, and even less so for males. Therefore one important research investment needs to be made in developing and testing measures of the traits that predispose men and women to act in certain ways. Only after the measures are developed are we in a better position to study how these predispositions develop and to also study how they are distributed in scientifically representative samples of the general population, or subpopulations.*

- C** *Some progress can be made understanding reproductive behavior by adding male respondents to ongoing surveys of females like the National Survey of Family Growth. However we note that more work is needed on the measurement of motivation regarding a number of reproductive behaviors. The area in which we are best poised to gain understanding is contraceptive motivation because more preliminary work has been done in this area.*

- C** *The ultimate goal should be to develop a comprehensive understanding of the motivational underpinnings of reproductive behavior for both males and females-- an understanding that incorporates physiological, social and cultural influences and which includes a developmental focus.*

Summary of Principles and Recommendations

Principles

1. It is important to gain scientific understanding of motivation and the links between motivation, intention and behavior.
2. An understanding of fertility behavior cannot be achieved if males are considered in isolation from their female partners and the cultural and social context within which their interaction occurs.

Recommendations.

1. Better Description of Predispositions is Needed.

Sexual Activity Motivation

- o Research about male (and female) reproductive behavior needs to focus on motivation to engage in sexual activity and motivation to be abstinent.
- o Work to develop and test measures of motivation regarding sexual activity should be carried out.
- o Further analyses of existing data from the NHSLS and other data sets should be conducted and disseminated to further the understanding of the scientific community and the public about the potential importance of these predispositions in understanding reproductive behavior.

Contraceptive Motivation

- o More research is needed about men's own motivation to contracept and their perceptions of their partner's motivation. On the flip side, we need to understand better the motivation not to contracept.
- o Further work is needed on men's real motivation to use condoms, especially among adult unmarried men.
- o Further research is needed to understand the intersection of concern about STD transmission and unintended pregnancy in males' motivation to use condoms.

Sterilization Motivation

- o More research is needed to understand the role of male motivation regarding their own sterilization and that of their partners. In particular it would be useful to have baseline data on men's attitudes towards vasectomy.

Motivation to Impregnate

- o Research is needed about males' motivation to impregnate females.
- o Measures of male motivation to impregnate females need to be developed.

Motivation to Have Children

- o The work on men in marital relationships regarding motivation to have children need to be developed more fully and extended to include men in cohabiting and also transient relationships.

Perspectives on Unintended Pregnancy and Abortion

- o More research is needed about the male partner's perspective on unintended pregnancy and his views of abortion as a potential resolution to such a pregnancy.

2. Better understanding of how predispositions develop is needed.

- o There is surprisingly little research that examines the contribution of physiological and biological factors to sexual behavior in either males or females. This is an important topic for future work.
- o Given the early emergence of gender differences in motivations for reproductive behavior, it is important to support longitudinal studies that begin when study participants are children and to follow them into adulthood. New technology makes it possible to include bio-measures like genetic mapping, hormonal assays and the like. Both boys and girls should be studied.

3. Linking motivation and behavior

- o Measures of key concepts are not yet full developed for females, and even less so for males. An important research investment is the development and testing of measures of the predispositions held by males and females regarding reproductive behaviors.

- o Some progress can be made understanding reproductive behavior of males by adding questions and male respondents to the National Survey of Family Growth.
- o The ultimate goals should be developing a comprehensive understanding of the motivational underpinning of reproductive behavior for both males and females. This understanding should incorporate physiological, social and cultural influences and include a developmental focus.

4. Needed data efforts

- o More detailed analyses should be conducted with existing data sets, both domestic and international.
- o Male respondents and paired couples should be included in surveys that currently focus on females.
- o New small scale data collection efforts are needed which focus on measuring and understanding motivation and its role in reproductive behaviors.
- o Eventually large scale population based surveys should include measures of motivation, behavior, and potentially biomarkers.

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APPENDIX E

**DATA AND RESEARCH NEEDS CONCERNING
UNION FORMATION AND DISSOLUTION**

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Introduction

This paper has been written to provide a broad overview of union formation and dissolution in the United States. Our primary goal in writing the paper is to consider the current state of knowledge concerning the formation and dissolution of unions. We discuss a broad range of things that are currently understood about union formation and dissolution, and, more importantly, consider some of the important things that are currently unknown or very dimly understood. An important element of the paper is to provide recommendations concerning steps that can be taken to enhance further our understanding of these important processes. Because of the breadth of the union formation and dissolution topic, we recognize that our review cannot be exhaustive in covering all dimensions of the topic.

We begin our paper with a discussion of the institution of marriage. We focus on the meaning of marriage and the ways in which the cultural and institutional underpinnings of marriage vary from other union forms such as nonmarital cohabitation. This section also briefly considers the role of the legal system and public policy in union formation and dissolution. The paper then turns to a brief discussion of some of the historical changes which have occurred in union formation and dissolution. We consider trends in both behavior and the norms and values underlying the formation and dissolution of unions. Our next broad area concerns the causes and consequences of union formation and dissolution. Here we address such issues as the processes leading to the formation or dissolution of a union. We also consider the factors that might influence the rate of union formation and dissolution. Also discussed are factors that would move people toward different kinds of unions such as marriage, cohabitation, and unions that do not involve coresidence. An important element here is the ways in which childbearing and childrearing are involved in, influence, and are influenced by the processes and decisions of union formation and dissolution.

In the latter part of the paper we turn our attention to future research. We consider some of the important gaps in our knowledge and make recommendations concerning approaches for furthering our understanding. Of particular importance here are the changes which have occurred in union formation and dissolution and the ways these changes influence our data collection system. We discuss ways in which our data system could be enhanced to further our knowledge of union formation and dissolution. While much of our current knowledge is drawn from large-scale quantitative data sets, we explore the potential usefulness of qualitative approaches--both by themselves, and also in combination with quantitative approaches. Again, we acknowledge that the breadth of the topic of union formation and dissolution makes any attempt at a full and comprehensive review beyond the scope of this paper. We end the paper with a brief summary of the main recommendations for additional data and research.

The Meaning of Cohabitation, Marriage and Other Relationships

The Institution of Marriage

The institution of marriage is characterized by a public, legally-binding, long-term commitment by an individual to another individual and to their union. The marriage contract explicitly includes sexual fidelity and mutual support, even during bad times. Marriage as an institution is supported by social norms, by organized religion, and by laws and public policies.

Marriage is by its very nature a public commitment between two adults. Wedding ceremonies mark the passage of the partners from one status and set of expectations to another. The participation of family and friends both alerts them to the occurrence of the transition and mobilizes their support for the new couple. The wedding ceremony revolves around the promises--public and legally binding--of the partners to love, honor, cherish and remain faithful to each other until death. The public commitment brings with it public recognition of the privileged and special relationship between husband and wife. The terms "husband" and "wife" carry with them a recognition of the legal, moral and emotional relationship between the partners.

The language that describes the relationships of married couples to each other and to family tells others how to expect the individual to behave across whole domains of life, from work to going out socially to behavior toward other men and women to the way the individuals handle their finances. The symbols of marriage, including wedding rings and the language used to describe the relationships, provide social recognition for the "coupleness" of husband and wife. These constitute a set of powerful social supports of marriage. This pervasive and implicit social recognition of the special rights and obligations of a husband to his wife and of a wife to her husband encourages the actors to play their roles fully, and in doing so molds men and women into "husbands" and "wives".

Most Americans define themselves as members of a religious denomination and the vast majority say that they believe in God. For these people, religious beliefs and values undergird the marriage contract, at least to some extent. Almost all religions sanctify marriage and promote the establishment and maintenance of family relationships. Organized religions offer institutionalized moral support for love, intimacy, and childbearing within the context of religiously sanctioned marriage (Thornton 1985). They also discourage sexual intimacy and childbearing outside marriage (Aldous 1983).

The social approval that religious communities give to marriage and to the married encourages people to get married in the first place and encourages them to stay married. The disapproval of the members of one's congregation--or the loss of their

approval--can loom large for the two-thirds of Americans who are members of a church or synagogue and constitutes a cost of divorce.

Married men and women are expected to be sexually faithful to their partners. Pledging to "keep only onto each other, as long as you both shall live" is part of marriage vows in many religious ceremonies. Virtually all married men and women say, when asked, that they expect to be monogamous and that they expect their spouse to be faithful to them. In fact, so few of the married say that they don't expect to give and receive fidelity that we can say that expectations of sexual faithfulness are a universally-shared cornerstone of marriage (Tabulations from the National Health and Social Life Survey, 1992).

Marriage is--by definition--a long-term contract. Marriage vows include the promise to stay together, no matter what happens, until the union is broken by the death of one of the parties. Of course, this is not what happens to many marriages; according to the best projections of demographers who study marriage something over half and perhaps as many as two-thirds of all recent marriages will end in divorce rather than death (Martin and Bumpass 1989). But this is not the ending that people expect when they marry, and the vast majority of all married men and women think that their marriage will last. Kara Joyner finds that married and cohabiting couples tend to see the stability of their relationships very differently. Among those in relationships that began no more than six years ago, 12% of the married women and 11% of the married men say that their chances of breaking up are about even or higher. For cohabiting women this figure is 28% and for cohabiting men 26% (see Kara Joyner. 1996. Ph.D. dissertation, Department of Sociology, University of Chicago).

People who expect to be part of a couple for their entire lives--unless something awful happens--organize their lives differently than people who expect to be single. The marriage contract, because it is long term, encourages husbands and wives to make decisions jointly and to function as part of a team. This expectation of a long-term working relationship between husband and wife allows the partners to develop *some* skills and to neglect others because they count on their spouse to fill in where they are weak. Thus married couples benefit from specialization and an exchange of "spousal labor." The institution of marriage helps individuals honor this long-term contract by providing social support for the couple as a couple and by imposing social and economic costs on those who dissolve their union.

Marriage assumes sharing of economic and social resources and what we can think of as co-insurance. Spouses act as a sort of small insurance pool against life's uncertainties, reducing their need to protect themselves *by themselves* from unexpected events.

Married couples benefit--as do cohabiting couples--from economies of scale. Couples living together spend much less per capita on many of the costs of living,

especially housing and food. This means that couples can have the same standard of living for much less money than can an adult living alone.

Marriage connects people to other individuals, to other social groups (such as their in-laws), and to other social institutions which are themselves a source of benefits. It provides individuals with a sense of obligation to others, which gives life meaning beyond oneself. It may change the psychological dynamics of the relationship in ways that bring benefits. Some consensus exists that marriage improves women's material well-being and men's emotional well-being, in comparison with being single.

The (Incompletely Institutionalized) Institution of Cohabitation

Cohabitation has some but not all of the characteristics of marriage. Cohabitation does not generally imply a lifetime commitment to stay together; a substantial minority of cohabiting couples disagree on the future of their relationship (Bumpass et al. 1991). Cohabitants seem to bring different, more individualistic values to the union than do those who marry (Clarkberg, Stolzenberg, and Waite, 1995). Goldscheider and Kaufman (1996:89) believe that the shift to cohabitation from marriage signals "lower commitment of women to men and even more so of men to women and to their relationship as an enduring unit." Perhaps as a result, some scholars view cohabitation as an especially poor bargain for women; Jones concludes:

The increasing trend toward consensual partnering in the West, seen by many as an emancipation from rigid concepts of marriage, may represent a new enslavement rather than freedom for women (1994:900).

Cohabitants are much less likely than married couples to pool financial resources, more likely to assume that each partner is responsible for supporting himself or herself financially, more likely to spend free time separately, and less likely to agree on the future of the relationship (Blumstein and Schwartz 1983). This uncertainty makes both investment in the relationship and specialization with this partner much riskier than in marriage, and so reduces them. Whereas marriage connects individuals to other important social institutions, such as organized religion, cohabitation seems to distance them from these institutions (Stolzenberg et al. 1995; Thornton, Axinn, and Hill 1992).

Cohabiting unions are much less stable than marriages. Research using data from the National Survey of Families and Households has shown that 90 percent of cohabiting couples either marry or separate within five years (Bumpass, Sweet and Cherlin, 1991). Evidence from Canada suggests that about half of cohabiting couples separate and half marry (Wu and Balakrishnan, 1995).

The Legal System and Marriage

Marriage is a legally binding contract between two individuals. The status of marriage as a legal contract means that the legal system enforces the rights and obligations between the spouses and oversees the dissolution of the contract in the event of divorce.

Until quite recently, the marriage contract was based on the notion of "status," the rights and obligations inherent in the particular relationship of the individual to others. "Husband," as a legal status historically carried a different set of rights and obligations than the legal status of "wife." By becoming a "husband" or "wife", a person took on a particular social role, which located him or her within a network of relationships. The status or role of husband or wife prescribed behavior based on expectations or social norms. Some of the behavior expected of husbands and wives was delineated in the marriage contract or by the legal system on the basis of the marriage contract and society's moral vision of marriage. (For an excellent discussion of changes in family law as they affect marriage, see Regan, 1996).

This view of marriage was part of a larger package of supports and restrictions. Legal marriages could generally only be dissolved, if at all only by egregious breach of the marriage contract. In some states, consent of both parties, or a lengthy period of legal separation, was required to obtain a divorce. Currently under no-fault divorce, available in all states, no charge of marital misconduct is required. Either spouse may dissolve the marriage if he or she so desires, even if both spouses have lived up to the terms of the marriage contract and regardless of the wishes of the other spouse.

We have moved toward a view of marriage as a contract that reflects an agreement between the individuals involved, an agreement that they are free to structure in any way they wish. This view accepts as valid prenuptial agreements that absolve spouses from any continuing financial obligation for each other in the event of divorce, even if this means a very unequal division of resources.

The legal view of marriage as an arrangement that lasts only as long as it suits both partners undercuts the supports that allow individuals to invest themselves in their marriage. In a world in which at least half of all marriages end in divorce, a world in which both spouses are expected to be financially self-sufficient within a fairly short period after divorce, it becomes risky to put much time, money or energy into one's marriage and rational to invest in oneself or in portable skills and goods. So the structure of incentives have changed in a way that weakens marriage as an institution. This makes any particular marriage more fragile. Married couples are more likely to dissolve their marriage, all else equal, if they live in a state with relatively liberal divorce laws than if they live in a state with relatively restrictive divorce laws (Lillard, Brien and Waite, 1995).

Public Policy and Marriage

In today's world, married people often receive different treatment by the government than single people do. Married individuals face different tax rates than they would if they were not married. In some states, poor *married* parents are not eligible for programs like Aid to Families with Dependent Children (AFDC) that are available to poor single parents. An active policy debate currently rages on the impact of government policies especially eligibility for government transfers and other program that exclude the married. Do eligibility requirements for AFDC, Medicaid, public housing and other programs discourage marriage? No consensus exists.

Although the debate on the impact of government policies on marriage focuses on AFDC and other welfare programs, any program that differentiates between the married and the single could affect behavior. Social Security is an obvious example. Widows receive Social Security payments based on their husband's earnings record, but only if they were legally married. Social Security follows state law in recognizing common-law marriage. So in Illinois, which does not recognize common-law marriage, a woman who lived with a man for thirty years can collect no Social Security on his account if he retires or dies, even if she was financially dependent on him for that entire period. But if a 75-year old woman marries an 80-year old man who dies a year later, she is eligible for his entire Social Security amount as the widow of a covered worker, even though she was not his wife for any of the time he was working (information gathered in extended interviews with the staff at a local Social Security Administration Office).

The federal tax law and parental consent requirements for marriage by teens provide other examples of public policies that may affect the choice of individuals to marry.

Historical Changes in Union Formation and Dissolution

While marriage has historically been and continues to be a central institution in American society, the processes of union formation and dissolution have changed substantially across the past century (Cherlin, 1992; Thornton, 1994). Historically, marriage was an institution entered into by a young man and woman who had experienced a period of courtship, fallen in love, were willing to make a commitment to each other, and had the financial resources to support an independent household. While some people married at relatively young ages, most people married in their twenties, and significant fractions never married. The normative structure of society called for sexual abstinence before marriage, although in actuality, significant numbers had sexual relations before marriage, some brides were pregnant at marriage, and a small number of children were born outside of marriage. Both the formal and informal rules of society called for marriage to be a lifetime relationship, with divorce being relatively uncommon. However, the high levels of mortality in the past produced substantial amounts of marital dissolution.

The past century has brought substantial changes in many dimensions in this system of union formation and dissolution. Among the earliest and most important of these changes were the twin revolutions in divorce and mortality (Cherlin, 1992; Thornton, 1994). At the same time that the dramatic decreases in mortality were increasing the longevity of marriages, the divorce revolution was increasing marital instability. Whereas only a small fraction of marriages contracted in the latter part of the nineteenth century ended in divorce, today demographers project that well over one-half will be terminated by marital discord (Martin and Bumpass, 1989; Bumpass, 1990).

Union formation has also changed dramatically in recent decades. The United States experienced a substantial marriage boom following World War II, with both age at marriage and the number never marrying declining (Cherlin, 1992; Thornton, 1994). This marriage boom helped to fuel the better-known baby boom occurring after World War II. The marriage boom declined during the 1960s and 1970s, with both the pace and extensiveness of marriage quickly returning to the levels of the early twentieth century. Additional changes were occurring in the union formation process in the 1960s and 1970s as premarital sex became much more common, sexual relations were experienced by younger teenagers, and pregnancy and childbearing outside of marriage increased (Ventura et al., 1995). In fact, the increases in nonmarital childbearing have been so dramatic that in recent years approximately one-third of all children are born to unmarried women (Ventura et al., 1995). While this trend in nonmarital childbearing has been fueled in part by rising rates of nonmarital pregnancy, it has also been strengthened by the declines in marriage among premaritally pregnant couples (Ventura et al., 1995).

In recent years union formation has been further modified by the rapid rise in nonmarital cohabitation. In fact, the rise in nonmarital cohabitation has been so rapid in the United States that substantial fractions of all first coresidential unions involve nonmarital cohabitation rather than marriage (Bumpass and Sweet, 1989). In addition, the recent increase in cohabitation has been almost as great as the decline in marriage--with the result being that the total union formation rate from both marriage and cohabitation has been relatively stable across recent decades (Bumpass and Sweet, 1989). While some cohabiting unions are relatively permanent, substantial fractions are of relatively brief duration--with many cohabiting unions being quickly dissolved or transformed into marital unions (Bumpass and Sweet, 1989). One important result of the growth in nonmarital cohabitation is that significant fractions of children born out of wedlock are actually born to coresiding parents. In addition, significant numbers of children of divorced parents are currently living with one of their parents and a cohabiting partner.

Accompanying these behavioral changes in union formation and dissolution have been dramatic shifts in the normative climate surrounding sex, cohabitation, marriage, divorce, and childbearing (Thornton, 1989, 1995). Most importantly here has been the dramatic weakening of the normative imperative to marry and to stay married. At the same time, normative proscriptions against premarital sex, nonmarital cohabitation, and

out-of-wedlock childbearing have declined dramatically, with large numbers believing that living together before marriage is a good idea. Contraception is widely endorsed among young people today, despite its relatively infrequent or ineffective use among many. These dramatic changes, which have occurred for both men and women, have greatly reduced the control of families and societal institutions over the personal decisions of individual women, men, and couples.

While these dramatic changes in norms and values have permeated almost every corner of society, union formation attitudes vary greatly by age and generation (Bumpass et al., 1991; Michael et al., 1994; Pagnini and Rindfuss, 1993; Thornton, 1989). Compared to older people, the young are much more accepting of premarital sexual relations, unmarried cohabitation, nonmarital childbearing, and the idea of never marrying. These age differences in attitudes and values are also reflected in generational differences within the family--with young people having much more accepting attitudes than their parents. These differences across age and generation are true for both males and females. Furthermore, these generational differences are understood by the actors involved and are undoubtedly the source of significant intergenerational tension and conflict.

Despite the significant changes in union formation and dissolution behavior and values, Americans continue to value marriage and family life (Thornton, 1989). Most young people, including both men and women, expect to marry and believe that having a good marriage and family life is quite or extremely important. Most also view divorce in negative terms.

Among the most important issues facing family scholars and policy makers today is the question of why: what are the factors that have driven these important trends in family behavior and values? Numerous explanations have been advanced, including: the shift from an agricultural to industrial to service economy; the increase in women's employment; the decline in economic opportunities for men; the widespread availability and acceptance of contraception and abortion; the decline in the control of religious institutions; the expansion of education; the rise of the welfare state; and the ethos of individualism. Unfortunately, the empirical evaluation of the various explanations of family change is very difficult. Consequently, we only dimly understand the causal mechanisms underlying these changes, the ways in which these causal forces combine and interact, and the ways in which different dimensions of these union formation and dissolution processes are influenced differently by the various causal forces.

We also do not yet fully understand the implications of many of these trends. As indicated earlier, we have some understanding about how marriage and cohabitation differ, but we do not fully understand the different meanings the two types of unions have for society and those involved. We also do not know to what extent cohabitation is a substitute for marriage or a new form of courtship. Also, important are the factors which lead individual couples today to cohabit, marry, or to live apart. Who is making these

decisions--men or women? And, what meaning do the new forms of union relationships have for children--both to children born to both members of the couple involved and to children of only the woman or only the man involved?

Of course, we also do not know what the future holds for union formation and dissolution. Given the magnitude and recency of the changes in union formation and dissolution, it would be surprising if current patterns have been fully institutionalized. Rather, it is more likely that changes will continue, with the trajectory of those changes uncertain. An important element of any research program on union formation and dissolution is continued monitoring of future trends.

International Comparisons

It is useful to place union formation and dissolution in the United States in international perspective, although a full examination of cross-cultural differences is beyond the scope of this paper. We begin by noting that the rate of childbearing among teenagers in the United States is higher than the rate for most of the countries of Europe (Westoff et al., 1983; Ahlburg and DeVita, 1992). In many cases these differences are substantial, especially when the comparisons are with the countries of Western Europe (Westoff et al., 1983; Ahlburg and DeVita, 1992). In addition, the teenage childbearing rate in the United States has been several times higher than the rate in Japan (Westoff et al., 1983; Ahlburg and DeVita, 1992). Note, however, that the American percentage of children born to unmarried mothers is similar to that of several Western European countries such as France and the United Kingdom, but lower than in Sweden and Denmark and higher than in Germany, the Netherlands, and Italy (Ventura et al., 1995; Ahlburg and DeVita, 1992). The percentage of children born to unmarried mothers is several times lower in Japan than in the United States and Western Europe (Ahlburg and DeVita, 1992; Ventura, 1995).

The United States has historically had and continues to have an anomalous divorce rate. The American divorce rate in recent years has been approximately double the rate for many Western European countries (Ahlburg and DeVita, 1992). Note, however, that changes in divorce rates in Western Europe have generally paralleled those in the United States, although at a lower absolute level (Ahlburg and DeVita, 1992).

Although cross-cultural studies are difficult to operationalize because of differences in concepts, measures, and data, we believe that substantial understanding can be obtained through comparative research. This has proven to be true in the area of adolescent childbearing (Jones et al., 1985, 1986), and we believe similar useful work can be accomplished along other dimensions of union formation and dissolution.

Influences on Union Formation and Dissolution

Given the historical centrality of the institution of marriage, it should not be surprising that decisions about union formation and dissolution are intertwined with, influenced by, and consequential for numerous other dimensions of life, including the economy, employment, schooling, economic and psychological well-being, and religious institutions. Furthermore, marriage is frequently an intergenerational process in that parents are generally influential in decisions about dating, courtship, and union formation. In addition, decisions about union formation and dissolution have important ramifications for the children of the couple involved in the marital transition.

Looking first at parents, we know that many dimensions of the parental family influence the union formation and dissolution experience of their children. Across a range of family issues, including premarital sex, cohabitation, marital timing, and divorce, the values and attitudes of parents influence the attitudes of their children (Thornton, 1992; Axinn and Thornton, 1996). There is also evidence that these attitudes and values of parents influence their children's premarital sexual behavior, experience with cohabitation, and entrance into marriage. The influence of attitudes and values across generations appears to be strongest in families with positive relationships between parents and children (Moore et al., 1986; Weinstein and Thornton, 1989). These intergenerational influences appear to operate for both males and females.

Parental religiosity is also related to the ways in which young people form unions. The religiosity of parents seems to decrease their young adult children having had sexual intercourse and the number of partners (Thornton and Camburn, 1989). Parental religiosity, as measured by both attendance at religious services and the importance of religion in one's life, is also associated with children's higher rates of marriage and lower rates of cohabitation--for both female and male children (Thornton et al., 1992).

We also know that the union formation and dissolution experiences of parents are related to the attitudes and experiences of their children (Axinn and Thornton, 1996; Amato and Booth, 1991; Miller et al., 1987; Lye and Waldron 1993; Moore and Stief, 1991). For example, parental divorce is associated with more positive attitudes toward premarital sex and greater frequency of sexual intercourse among unmarried males and females. Children of divorce also have more accepting attitudes toward divorce, unmarried childbearing, and cohabitation. Parental marital disruption also increases the rate of cohabitation in the second generation. Premarital pregnancy and young age at marriage in the parental generation are also associated with higher rates of union formation, both marriage and cohabitation, among children. Parental divorce is also associated with higher rates of marital instability in the second generation. These intergenerational effects appear to hold for both males and females.

Parental resources also influence children's union formation. Parental economic standing, as measured by education and income, is positively related to parental preferred ages for children to marry and children's actual ages at marriage--for both males and females, although apparently stronger for males than females.

Although we know that the parental generation influences the union formation and dissolution experiences of young people, the causal mechanisms producing these effects are not well understood. While there are reasons to believe that genetic factors are important in these intergenerational effects, the magnitude of these effects are not clear. It is also not clear how these genetic factors interact with social influences. Furthermore, the social mechanisms responsible for the intergenerational correlations have not been specified or demonstrated well. Even less information is available concerning the ways in which mothers, fathers, and children interact in decisions about the children's dating, courtship, cohabitation, marriage, and divorce.

A growing body of research suggests that the attitudes and behavior of young people are related to the behavior of their siblings (Axinn et al., 1994; East and Felice, 1992; Hogan and Kitagawa, 1985; Friede et al., 1986; Haurin and Mott, 1990; East et al., 1993). This association could be the result of many different kinds of causal forces, including siblings influencing each other, siblings being influenced by similar genetic influences, or siblings being influenced by the same family or neighborhood environments. Unfortunately, research on sibling influences is relatively recent, with little known about causal mechanisms or the ways siblings interact to influence each other.

Union formation and dissolution are also intimately interconnected with other dimensions of an individual's life. We know that there is a strong temporal component in that premarital sexual experience--including its occurrence, pace of initiation, frequency, number of partners (as well as attitudes)--is strongly related to age at first dating and age at first going steady--for both males and females (Miller et al., 1986; Thornton, 1990). Young age at first intercourse is also strongly related to frequency and number of partners for both males and females. There are also good reasons to expect that the timing of dating, going steady, and first intercourse would be related to the pace of entry into marriage and cohabitation. Unfortunately, it is not clear whether these strong correlations in the initiation of various steps in the courtship and union formation process are the result of genetic or social forces, and, if social, the ways in which the social forces operate.

A very important element in the union formation process is education. Young people who are performing well in high school and who have ambitious educational aspirations are less involved sexually than are young people with lower school performance and lesser aspirations in high school (Zelnik et al., 1981; Moore and Waite, 1977). School enrollment after high school substantially reduces the rate of entrance into both cohabitation and marriage, although more so for marriage than for cohabitation--for both women and men (Goldscheider and Waite, 1986; Waite and Spitze, 1981; Thornton, et al., 1995). This effect declines over the early part of the life course for women but not for men. School accumulation (years of schooling) increases the rate of entrance into marriage while decreasing the rate of cohabitation for men, but the results are more

ambiguous for women (Goldscheider and Waite, 1986; Teachman et al., 1987; Blossfeld and Huinink, 1991; Hoem, 1986; Thornton et al., 1995). These findings suggest that education is an important sorting device between cohabitation and marriage. While it is possible to hypothesize about the causes for the differential effects of education on marriage and cohabitation, there is little empirical evidence indicating why this effect exists. It is likely that any information explicating this effect would also help us better understand the difference between the meaning and functioning of cohabitation and marriage in the lives of young people today.

In Western societies marriage has historically been viewed as an institution intricately interrelated with economic standing and prospects. The significance of economic considerations in marriage suggests an important effect of earning capacity on the ability to marry. Employment, careers, and earning capacity seem to be particularly important for men, although their importance may be increasing for women as well (Oppenheimer, 1994; Oppenheimer and Lew, 1995; Oppenheimer et al., 1996; Lichter et al., 1991).

There are important interconnections between individual religiosity and family formation attitudes and experience. High levels of personal religious involvement and commitment are associated with lower levels of acceptance of divorce, cohabitation, premarital sex, unmarried childbearing, not marrying, and remaining childless (Thornton and Camburn, 1989; Sweet and Bumpass, 1990; Lye and Waldron, 1993; Klassen et al., 1989). The religiosity of young adults also reduces premarital sexual intercourse experience (Thornton and Camburn, 1989). Children's religiosity--both attendance and importance--also reduces the cohabitation rate and increases the marriage rate (Thornton et al., 1992). These effects are true for both males and females. Religiosity is also negatively correlated with marital instability. While we know that religiosity is generally correlated with family formation and dissolution, there is little information about the factors producing this effect. Is it integration into a religious community, the authority of religious figures, commitment to historical religious values, or some other dimension that leads to the correlation of religiosity and union formation and dissolution. Interestingly enough, certain union experiences such as cohabitation may cause some people to be less involved with their religious institutions.

We also know that personal attitudes and values are important in union formation and dissolution. Premarital sex attitudes and behavior are positively correlated. Children with positive attitudes toward cohabitation marry at a lower rate and cohabit at a higher rate than others--true for both females and males. At the same time, we know that experience with cohabitation leads to more positive attitudes toward cohabitation (controlling for pre-cohabitation attitudes)--for both males and females (Axinn and Thornton, 1993).

There is also an interesting intertwining of union formation and union dissolution behavior (Lillard et al., 1995; Axinn and Thornton, 1992). Cohabitation is strongly and

positively associated with divorce. It is likely that this empirical correlation is the product both of cohabitation being selective of people who have higher risks of divorce and cohabitation itself increasing the risks of divorce. Unfortunately, we still know very little about the precise nature of either the forces selecting people into cohabitation or marriage or the ways in which cohabitation experience might change people's marital stability. Given that the correlation between cohabitation and divorce is substantial, the sorting out of the causal interconnections promises to provide substantial information about the nature and meaning of cohabitation, marriage, and divorce.

Given recent demographic patterns in divorce, remarriage, and out-of-wedlock parenting, an important contemporary issue relevant to union formation among romantic partners is how they negotiate the presence of children. What types of men are more or less likely to make a serious commitment to a woman who has a child(ren) from a previous relationship(s)? What types of processes are associated with the way men and women negotiate their understanding of union formation? How do men's and women's different perceptions of children affect their relative willingness to pursue a relationship with another person who has a child(ren) (either resident or nonresident)? What are the power dynamics of these types of situations? While policymakers have begun to direct their attention to strategies for helping parents make the transition out of marriage to a postdivorce parenting relationship, what, if anything, can be done about couples forming unions where children of one or both partners are brought into a new romantic relationship?

Another area where knowledge is very limited is couple negotiation and decision-making. The vast majority of the research on the formation of marriages and cohabiting unions focuses on the behavior of only one of the partners, usually the woman. Models of marriage and, more recently, of cohabitation, generally follow individuals who have not yet entered a union over a number of years or between certain ages, to see which people form unions and what type they choose. Although these models have given us a detailed view of the characteristics of men and women that increase the chances that they cohabit or marry, they are inherently limited. Union formation always involves two people, who must agree to enter a partnership and what kind to form. One cannot marry without finding an acceptable mate who is also willing to marry--or cohabit. Single sex models--or any research focused on one half of the pair--can tell us little about the ways the couples negotiate the future of the relationship and the terms under which it will continue. Similarly, research on divorce based on the behavior of individuals tells us little about the ways that couples decide to end their marriage. Disruption of either a cohabiting union or a marriage differs from the process of entering a union, however, in that one person acting without the consent of the other cannot begin a union but can end one. So couple negotiations in the process of union formation may be fundamentally different than couple negotiations over the end of a union.

Any understanding of the role of couple decision-making in marriage or cohabitation requires a fundamentally different approach than has been used to date.

This might involve intensive interviewing of both partners in dating couples, as only one of a number of possible approaches. We know very little about appropriate research techniques to shed light on these inherently dyadic processes.

A particularly important issue concerning couple negotiations and decisionmaking concerns the reasons that lead men and women to enter into unions, to choose the kinds of unions they do, and to dissolve unions once they are formed. Why are so many unions today fragile? What are the considerations and motivations that lead people to dissolve the unions they form? What are the different roles and concerns of men and women in these decisions?

Issues for Couples following Union Dissolution

The increasing frequency of marital dissolution and out-of-wedlock childbearing raises particularly important issues concerning the support and rearing of the children involved. Heavy emphasis is currently being made to foster the continued involvement of the father after divorce and in never-married families.

One emphasis has been the maintenance of financial contributions by the absent parent. According to the Office of Child Support Enforcement, currently the level of child support is near \$12 billion per year (Office of Child Support Enforcement, no date). According to a recent Current Population Survey, 54% or 6.2 million women and men with dependent children from an absent spouse had a child support order of which 5.3 million were supposed to receive child support in the survey year (U.S. Bureau of the Census, 1995). Approximately half of those who were supposed to receive child support received full child support, a quarter received partial child support payments, and a quarter received none (U.S. Bureau of the Census, 1995). Poor families that have orders receive child support at almost the same rate (though not amount)--69% vs 75%--as non poor families. Poor families have a lower rate of child support orders than non poor families. Reasons for not establishing awards include: Did not pursue an award (34%), unable to locate the other parent (17.5%), did not want child support (17.5%), other parent unable to pay (16.5%), paternity not established (5.7%), and other financial agreement made (5.5%).

Recently significant strides have been made to establish formal paternity for fathers in unwed families. All states are required and most have programs to establish voluntary paternity at the birth of the child or soon afterward. The paternity establishment rate is near 50%. Due to the welfare reform laws which now time-limit welfare, there will be increased emphasis to push the paternity rate to the 90% level (Office of Child Support Enforcement, no date). Results of a survey by Arkansas of poor pregnant women shows that these women indicate that in 75% of the time they want to establish paternity and that in 71% of the time the fathers would cooperate; yet in fact only slightly over 30% of these women did file an affidavit with the in-hospital program (State of Arkansas, Department of Finance and Administration, 1997). Surprisingly, of

those women who said they did not want paternity established (25% of the total), only 3% said that they did not know who the father was (State of Arkansas, Department of Finance and Administration, 1997). Also, only slightly over 4% of these women said they were afraid of 'what the father might do'. Other reasons for not wanting paternity establishment include: do not want father involved, he is already giving me money, do not know where he is, he is not involved, don't want to lose benefits, he can't pay, and he might want custody and visitation.

Another significant development has been the proliferation of provisions for visitation and joint custody for non custodial fathers. The Current Population Survey indicates that 43.1% of all non-custodial parents have visitation privileges, 9.7% have joint custody, and 7.2% have both visitation privileges and joint custody. This same survey finds that almost 80% of those with visitation or joint custody pay child support compared with only 55% of those with neither. Nick Zill and Christine Nord in a recent study for the Department of Health and Human Services find an association with payment of child support and visitation; however the cause and effect is difficult to establish since the type of parent who wants to pay also may want to visit. They find, however, based on limited longitudinal SIPP data, that increased visitation or father involvement might be driven by payment of child support as opposed to the other way around. They also document continued contact by fathers in unwed families as well as a trend for greater father involvement in general.

Although approximately one-half of children living apart from their fathers see their fathers very infrequently, this trend may have the potential for being reversed due to continued and increased emphasis on child support enforcement, paternity establishment and provision of visitation and joint custody rights for non custodial mothers and fathers. Recent changes in the welfare laws providing for time limited welfare will put increasing pressure on paternity establishment and child support enforcement which may in turn stimulate greater involvement by non-custodial parents after divorce and separation.

Given the growing importance of the issues of paternity establishment, child support, and custody and visitation, it is important to know more about these processes and how they work. It is also important to know more about how they influence the lives of those involved--not only the children, but the mothers and fathers as well. More information is also needed concerning the way that child support, paternity establishment, and custody and visitation influence interaction patterns among mother-child, father-child, and mother-father dyads.

Data Needs

As union formation and dissolution have evolved in recent years, the data requirements for describing and explaining behavior and trends have become more complex and rigorous. When coresidence, sex, childbearing, and childrearing were all primarily centered around the institution of marriage, it was straightforward to limit the

unions of interest to marriage and to focus attention exclusively on entrance into and exit out of marriage. However, as sex, coresidence, pregnancy, childbearing, and childrearing have become increasingly separated from the institution of marriage, limiting scholarly attention only to marital unions leaves much of the story outside of the purview of investigators. In fact, the amount of action in these domains that is occurring outside of marriage has become so large that it is becoming increasingly difficult to justify scholarly studies of union formation and dissolution in the United States that do not extend themselves beyond marriage and divorce.

The partial separation of so many activities from marriage requires that we devote considerable attention to the concept of "union". What do we mean by unions? What are the important dimensions of unions that are of central interest to us? Is it coresidence? Economic intertwining? Sexual intimacy? Childbearing? Childrearing? How do we translate these important substantive concepts into language and questions that elicit the appropriate responses from people participating in our studies? These are central conceptual and methodological issues that require considerable additional thought and clarification.

While we argue that the concept of marriage is no longer sufficient to capture sufficiently the concept of union, we also believe that it continues to be a primary concept in studies of union formation and dissolution. This means that empirical studies need to study the processes leading into marriage and those leading out of marriage. It also means that at a minimum we need to obtain full marital histories in empirical studies, including dates of all marriages, separations, and remarriages.

We also believe that it is important to collect information on cohabiting unions. This is important because these unions involve several of the central dimensions historically associated with marriage, including coresidence, intimacy, and economic interchange. They also frequently involve childbearing and childrearing. In addition, they frequently are part of the process leading up to marriage itself. The growing importance of cohabitation makes it important for studies of union formation and dissolution to ascertain full histories of individual entrance into and exit out of such unions. Furthermore, the growing acceptance of nonmarital cohabitation makes it possible to successfully collect this information--something that has now been accomplished in multiple large-scale studies.

While we accept the premise that the kind of data to be collected in a project necessarily depends upon the goals, structure, and resources of the project, we believe that any survey project designed to study union formation and dissolution must, at a minimum, ascertain from respondents full histories of cohabitation and marriage. This means obtaining dates of entrances into cohabitation and marriage, separations from cohabitation and marriage, and divorces. Furthermore, while we recognize that the number of such unions that some respondents experience sometimes motivates researchers to truncate the number of marriages and cohabitations they ask about,

experience tells us that such truncations can sometimes substantially limit our ability to study union formation and dissolution. Therefore, we recommend, wherever possible, that basic studies of union formation and dissolution ascertain complete marriage and cohabitation histories.

We believe that it is particularly important that our basic systems for monitoring changes in union formation and dissolution include information on both marriage and cohabitation. Historically, our major efforts for monitoring trends in union formation and dissolution have focused on marriage and divorce. Our primary data sources for this purpose have historically been the vital registration system, the decennial census, the annual Current Population Surveys, and the occasional marital history supplements to the Current Population Survey. We understand that the Survey of Income and Program Participation also collects marital history information from its participants. However, while these data sources have provided solid information about marriage, separation, and divorce, they collect limited cohabitation information and the cohabitation data they do collect do not include histories of entrance into and exit out of cohabitation. Because of this, they are not fully sufficient as monitors of levels and trends of union formation and dissolution. It is our recommendation that the federal system be expanded to include data collections permitting this broader monitoring of union formation and dissolution.

Additional studies have shown themselves to be valuable sources of information concerning union formation and dissolution. These include both studies that involve only one interview with the respondents and others that have followed the same respondents over a period of time. Many of these studies, particularly those that include panel components, have been especially important for understanding the determinants of union formation and dissolution. Among the studies that have been particularly valuable for this purpose are the Panel Study of Income Dynamics, the National Longitudinal Study of the High School Class of 1972, High School and Beyond, National Study of Families and Households, the National Survey of Family Growth, National Longitudinal Survey of Youth, and the Intergenerational Panel Study of Parents and Children. In fact, much of our knowledge concerning the determinants of union formation and dissolution comes from studies such as these.

Our purpose here is not to review the union formation and dissolution information collected in these data sources, since that is beyond the scope of this paper. Instead, our purpose is to argue that for these studies to be maximally useful for examination of union formation and dissolution that they need to assemble full marriage and cohabitation histories from their participants. These can be assembled retrospectively in one interview with a respondent. Or, more optimally, they can be assembled by splicing together short inter-survey cohabitation and marriage histories obtained in multiple waves of panel studies. This information about union formation and dissolution permits the examination of the causes and consequences of such behavior. Further details concerning the ways in which cohabitation and marriage histories may be collected in surveys are provided by Thornton and Young-DeMarco (1996).

There may also be studies for which marriage and cohabitation data may be insufficient as indicators of union formation and dissolution. For example, in studies of sex, pregnancy, and/or childbearing the limitation of unions to marriage or cohabitation may leave too many important unions outside the purview of the study. In such cases it may be important to define unions on the basis of sexual intimacy or some other criteria.

Studies of union formation that are serious about investigating the processes leading up to marriage, cohabitation, or childbearing may also need to recognize additional kinds of relationships, such as dating, going steady, and engagement. One of the difficult issues in such studies is the identification of the important concepts to be used in the investigation and then being certain that these concepts have similar meanings across different subgroups of the population to be studied. Additional research in this area is needed.

Earlier we mentioned several important data sets that have provided substantial information valuable for understanding union formation and dissolution in the United States (and there are others). Many of these data sets have the potential to support additional analyses to provide insights into some of our unanswered questions. We strongly encourage continued support for research utilizing these existing data sets.

There are several existing and planned studies that will be collecting information that is relevant to union formation and dissolution. We recommend that efforts be made to explore the possibilities of expanding these data sets in ways that will make them more valuable for understanding union formation and dissolution. This could further expand our potential for addressing important remaining questions.

As we have indicated in previous sections of this paper, much is known about the union formation and dissolution attitudes and behavior of men. This is true because many of the data sets used for studying union formation and dissolution include information about both women and men and their unions, thereby permitting parallel analyses of the attitudes and behavior of men and women. These data sets also permit examination of the ways in which gender intersects with union formation and dissolution. Unfortunately, our ability to understand union formation and dissolution from the male perspective is sometimes limited by data shortcomings. This can occur because, in some cases, data sets are limited to women, thereby, making it impossible to study men using those data resources. In other cases, data about men can be limited because of the difficulties of locating men and persuading them to participate in data collection projects. Since the lack of appropriate data about men and the ways in which they view and experience union formation and dissolution can restrict our knowledge of these issues, we recommend that considerable effort be made to include both men and women in our data collections and analyses. As we argued earlier, it is also often useful to include men and women who are partners in the same data collection in order to examine couple dynamics.

We also believe that cohabitation and marriage bring together two individuals with their own childbearing and union formation histories. The histories of both partners are very likely to influence the patterns of partner interaction, childbearing and childrearing, and marital stability. These considerations suggest the need for collecting family formation and dissolution information about both partners in a relationship.

While currently existing and planned data sets are valuable for studying union formation and dissolution, we believe that each of them are limited in ways that restrict their usefulness for answering many of the important substantive questions we have about the causes and consequences of union formation and dissolution patterns. Since most of these data sets were designed for other purposes, they are missing some of the key elements for definitive studies of union formation and dissolution. Consequently, we believe that serious consideration be given to designing and fielding a new study designed explicitly for the purpose of understanding union formation and dissolution.

Although the provision of a detailed plan for such a study of union formation and dissolution is beyond the scope of this paper, we will briefly sketch several key components that we believe should be included. This study should be designed so that it can follow the union formation process as it unfolds over time. This means that the study must begin early enough in the life courses of young people that it can ascertain baseline measures of the important hypothesized determinants of union formation before those determinants are substantially influenced by the union formation processes in question. This also implies a longitudinal design that follows young people across time as they enter and exit different kinds of relationships and unions.

We also suggest that such a study be designed to include a broad range of determinants and processes of union formation and dissolution. Included among the determinants of union formation should be the genetic, other institutional factors such as school and employment, religion and values, and individual goals, expectations, and abilities. The value of the study would be particularly enhanced if it were designed to evaluate the processes and mechanisms by which many of the currently known determinants of union formation and dissolution operate. The study would also be enhanced if it could build in methodologies to study decisionmaking processes.

It would be particularly valuable if a new study could be placed in a broad intergenerational framework where it considered explicitly the influence of fathers and mothers on the union experience of young adults. The inclusion of siblings in the study would also provide significant opportunities to study family influences operating through both biological and social routes. If possible, it would be useful to include peers in the design.

A new study of union formation and dissolution should include both males and females and should specifically address the gendered nature of relationships. We know that marriage has different meanings for men and women as well as different implications

for the two genders. These gender differences, along with their meaning and implication should be included explicitly in such a study.

We also believe that a new study of union formation and dissolution should contain a qualitative component to evaluate the meaning of union formation and dissolution in people's lives. What do cohabitation, marriage, and divorce mean? What are the motivations to marry, cohabit, or divorce? What are the bargains made in marriage and cohabitation? What bonds partners together? In what ways are the meanings of marriage and cohabitation linked to fatherhood and motherhood? Exploration of subgroup and cultural differences would be particularly important here. The potential of the study would also be enhanced by the use of an integrated multi-method design that allows both qualitative and quantitative research within the same theoretical and empirical project

Using Qualitative Data to Study Union Formation and Dissolution

We believe that qualitative studies can be valuable resources in increasing our understanding of union formation and dissolution. There are numerous qualitative/ethnographic studies that explore the social and cultural context of interpersonal relationships and union formation/dissolution. However, most of this work does not explicitly examine union formation/dissolution per se. Rather, these studies explore other factors that may have a significant effect on the formation and stability of unions, such as early childbearing, crime, and social disengagement. The focus of more recent qualitative work has been on adolescent childbearing and young adult fatherhood, and tends to examine factors that contribute to the formation of less stable unions or unions that do not involve coresidence. There is relatively little qualitative work on the formation of more stable unions and the factors that serve to maintain such unions over time. Nonetheless, existing work offers insights into interpersonal relationships in young and mature adult life. In particular, findings suggest that notions about gender roles, sexual identity and ideology, cultural scripts regarding male/female relations, peer groups/family support networks and contextual factors (e.g., economic opportunities), significantly influence both the initiation of unions, the type of unions that are formed, and the stability of unions over time.

For instance, it is presumed that individuals come to the interpersonal context with a predetermined set of codes and notions about sex appropriate roles and expectations. Although many aspects of relationships have become more egalitarian, specific sex roles and ideologies (i.e., masculine vs. feminine behaviors) still exert a strong force. Males, more frequently than females, are perceived as most appropriate to initiate an interpersonal exchange, from a simple request for a date, to a proposal of marriage, although the process of courtship/dating may be more egalitarian now than in the past (Orbuch, Veroff and Holmberg, 1993). In addition, females who initiate relationships or make advances to males still tend to be viewed as aggressive or "too loose" or "fast" (Sugland, Wilder, and Chandra, 1996).

Another example is the masculine role of "breadwinner/good provider". Qualitative work shows that men and women (and even extended kin) often assess the worth of the male as potential spouse or long-term partner in terms of the man's ability to meet the future needs of his mate and family. Less stable or transitory unions tend to form when the female (and extended family networks) sees the male as "not having much to offer" and the male feels unable to uphold his responsibility as provider (Stack, 1974; Anderson, 1989; Sullivan, 1993). Marital instability, particularly among adolescents, have been attributed in part to the husband's inability to support a family financially (Furstenberg, 1976). Furthermore, it has been suggested that increasing the formation of more stable unions would require, in part, increasing males' capacity to bring more to the "table" (e.g., material and emotional resources) (Furstenberg, 1993). Men's perceptions of their ability to assume or maintain the "mainstream" normative role of provider has also been suggested as an underlying dynamic for husband's and father's estrangement from their families and children, although the desire to be involved may be strong (Sullivan, 1993).

Qualitative studies also suggest that males with few strong role models for male behavior may view more stereotypical male behavior (e.g., need for control, sexual prowess) as appropriate male behavior and shy away from more feminine behaviors like parenting and taking responsibility for parenting if childbearing occurs. In fact, being sexually involved with multiple women simultaneously and fathering children by different women is sometimes viewed as a sign of masculinity (Anderson, 1989). Work by Anderson (1989) as well as Sugland and colleagues (1996) indicates that young males shy away from more committed relationships with females and perceive such unions as "entrapment", "tying them down" or "limiting their freedom".

Finally, an inability for males and females to trust one another may contribute to the lack of stable union formation among certain population subgroups. Studies describe young men's need to be "running the game" to maintain the upper hand in a relationship (Gilmore, DeLamater, and Wagstaff, 1995), and the need for having "someone on the side" for fear of being hurt or used by their partner (Sugland, et al. 1996).

While qualitative work has provided many insights into intimate relationships, much of what we know about unions (whether marital or cohabiting) comes from large, demographic surveys. In addition, while there is an increasingly greater understanding of male sexual and contraceptive behavior, many of our assumptions about fatherhood and male sexual and fertility behavior are based on models previously used for females, or come from answers provided by female respondents who serve as proxies for the male members of the household. Indeed, one important challenge of learning about union formation/dissolution, and fatherhood in general, is knowing where to start: 1) what issues are most critical for men versus women regarding union formation/relationships? 2) What questions/methodologies are best for gathering reliable and valid information about union formation/dissolution from men versus women? Qualitative research can be useful for charting new territory in this field and can offer more in depth information

from men about union formation and dissolution than is currently available from quantitative studies.

For instance, the majority of existing research on union formation/dissolution focuses primarily on marriage and divorce, and more recently cohabitation. However, the number and types of relationships that can and do exist between two individuals is much broader and more fluid than simply marriage and even cohabitation. Focus groups conducted among adolescents regarding pregnancy and sexuality indicate a range of different types of relationships, from the more traditional "boyfriend/girlfriend" with sexual monogamy, to unions described as "associates," where sexual intercourse is the common denominator that binds the two individuals (Anderson, 1989; Sugland, Wilder and Chandra, 1996). Thus, studies which solely address unions formed by marriage or co-residence fail to address a broader context of interpersonal relationships. Such relationships have important implications for fatherhood and the well-being of children born into those unions. Through qualitative research, one could document how males (and females) define a "union" as well as the various types/range of unions that males (females) tend to form, how types of unions differ, which types are most acceptable to men (versus women), what social and cultural meaning is attributed to different unions, the specific purpose for forming certain types of unions (e.g., physical versus emotional satisfaction) and what kind of satisfaction (emotional or otherwise) men (and women) derive from certain unions. One could also explore under which types of unions childbearing is acceptable/unacceptable, appropriate/inappropriate, and whether there are unique differences across race/ethnicity or socioeconomic subgroups and the life course for all of the above.

Information about union formation from a dyadic perspective is also needed and could also be obtained through qualitative work. All unions involve a series of interpersonal exchanges that can include sexual negotiation (even coercion); normative and cultural scripts specific for various unions; partner characteristics; and decision-making strategies and styles. Understanding the interpersonal exchanges that lead to various types of unions or non-unions and the decision making process involved to establish and maintain specific unions would be important. Ethnographic work could examine dating and courtship, and identify under what conditions unions move from casual encounters to more stable and committed relationships such as marriage. What factors influence the likelihood of forming more stable and committed unions, such as marriage or cohabitation? For instance, to what extent do contextual factors (e.g., economic and employment opportunities, racial discrimination) directly influence men's desires for and ability to form and preserve more stable unions with women? Answers to such questions may be critical for understanding racial differences in marriage rates and fertility. Qualitative methodologies could include case studies and story telling with couples in more committed relationships (Orbuch, Veroff and Holmberg, 1993), as well as personal interviews over time with young males and their partners (Furstenberg's Baltimore study), small group discussions such as focus groups (Sugland et al, 1996), and ethnographic studies (Sullivan, 1993; Anderson, 1989).

In addition, qualitative work can provide insight into norms among men regarding the formation and dissolution of relationships and the link to fatherhood. For instance, ethnographic studies demonstrate the importance of cultural and normative views about manhood, fatherhood, and gender roles/norms, and the extent to which such norms influence the types of unions and non-unions that are formed. However, the process through which norms and behaviors regarding sexual identity and intimate relationships are socially modeled and sanctioned for males and by whom (e.g., father, uncles, older brothers, etc.) is less frequently studied. Information on cultural differences in the process of social modeling is also limited. At what period in the life course do males take on norms about gender roles and relationships and parenting? What characteristics define manhood (e.g., stable employment, sexual prowess); to what extent do men value certain types of characteristics over others; and how are unions/non-unions influenced by views of manhood? To what extent do contextual factors such as economic opportunity, etc., influence cultural differences in views about manhood and union formation?

Finally, understanding subgroup differences (e.g., racial/ethnic, socioeconomic, age) in the definition, meaning, and process of union formation can be explored through qualitative studies as well. One could also explore policy and program strategies for strengthening unions and increasing the likelihood of stable union formation, and whether certain types of policies and strategies would be acceptable and potentially successful across different population subgroups.

Summary of Research and Data Recommendations

We begin our summary of recommendations by noting that union formation and dissolution are central elements in the well-being of men, women, and children. While we know a considerable amount about union formation and dissolution, there is much that remains to be learned. We believe that high priority should be given to filling the gaps in our information and knowledge. This will require enlarging and expanding the knowledge that we can procure from currently available data resources. It will also require a sophisticated expansion of the data that we have available for studying union formation and dissolution.

Fulfilling our current data and research needs will require a multi-faceted approach containing many elements. At several points in this paper we have discussed specific limitations in our information and knowledge base for understanding union formation and dissolution and made recommendations for ways to fill those gaps in data and research. In the following paragraphs we provide a summary of the specific component pieces that should be considered as part of a comprehensive program to provide the knowledge and information needed to understand these important processes.

1. Conduct research on the historical trends in union formation and dissolution, with particular emphasis on explicating the explanations and meanings of those changes.

2. Conduct research on the causes and consequences of union formation and dissolution. Of particular importance are the causal processes and mechanisms that lead people into unions, influence them to form different types of unions, and result in the dissolution of their unions. Among the causal factors where additional research is needed are: the legal system and public policy; parents; siblings; religion; values and attitudes; physiological and genetic factors; education; and the work place.
3. Study the ways in which individuals and couples make decisions about the formation and dissolution of unions. How do individuals negotiate with potential and current partners? What are the processes leading up to union formation and dissolution?
4. Examine the intersections of childbearing and childrearing with union formation and dissolution. Of particular interest here are the ways in which parents living apart from each other, either because of divorce or non-marital childbearing, handle such things as child support, child discipline, custody, and visitation. Also, of importance are the ways in which children may be influenced by and influence the union formation and dissolution experiences of their parents.
5. Conduct both substantive and methodological research concerning the meanings of different kinds of unions today, including marriage, cohabitation, and non-coresidential unions. What do people expect from different kinds of unions and what expectations and preferences motivate their choices?
6. Increase the number of data collections and analyses in which both men and women are included. Also, where necessary, expand the quality of data collected from men. More and better data about men will permit examination of the behavior and attitudes of men and how union formation and dissolution processes are different for men and women.
7. Expand and maintain data collection systems for monitoring future trends in union formation and dissolution. This data collection system should include information that permits monitoring attitudes, values, and behavior.
8. Expand and supplement current data collection efforts to include more information useful for studying the causes and consequences of union formation and dissolution.
9. Plan and field a new study that is designed explicitly to examine union formation and dissolution. Such a study should be designed explicitly to study causes and consequences, negotiation and decisionmaking, and the processes leading up to the formation and dissolution of unions.

10. Conduct additional data collection and analysis using qualitative approaches. Expand the utilization of multi-method approaches in studying union formation and dissolution.
11. Ensure that all data collections focusing on union formation and dissolution be designed to include information about a wide range of union types. All union formation and dissolution studies should obtain full marital and cohabitation histories. For some studies it will be necessary to obtain extensive information about additional types of unions as well.
12. Conduct cross-cultural research to investigate the reasons underlying the important differences among countries in union formation and dissolution.

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APPENDIX F

**MALE FERTILITY IN RELATION TO UNION FORMATION
AND DISSOLUTION**

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Introduction

Male fertility is usually defined and measured in the context of a man's relationship to the woman bearing the child. Though biological fatherhood may require no more than sexual intercourse with a fecund woman, chances of a man being legally recorded on the birth certificate, recognized informally as the child's father, or given access to the child depends on his relationship with the child's mother. The nature of the couple's relationship also plays a large role in the likelihood that the man will become a biological father through its influence on sexual behavior, contraception, and abortion.

In this essay, we address links between men's sexual unions with women and male fertility. "Demographic" dimensions of unions include duration, coresidence, formal marriage, separation and divorce, and the sequencing of multiple unions over the man's life course. "Interactive" dimensions include commitment, communication, emotional intimacy, power, and social embeddedness. We pay particular attention to the characteristics of unions in which male fertility is often unobserved or at best understudied -- nonmarital unions, and second- or higher-order marriages.

Our review of research findings and questions about men's unions and births is organized roughly along the life course. We begin with men's involvement in nonmarital pregnancies and births. How does the nature of the couple's relationship influence sexual intercourse, contraceptive use, and therefore the probability that an unmarried woman will become pregnant? What influence does the relationship have on the resolution of that pregnancy, and how does the pregnancy resolution affect the likelihood that the couple will cohabit or marry? How does nonmarital parenthood influence the quality of the parents' relationship or union stability, whether or not they marry?

We then shift to the marital relationship and pregnancies/births. How does the couple's relationship influence sexual intercourse, birth intentions, contraceptive use, and subsequent childbearing? To what extent do men's desires or plans for children influence the couple's contraceptive use and pregnancy outcomes? What effects do children -- particularly unintended births -- have on the couple's marriage, and to what extent does marital stability play a role in childbearing?

Finally, we consider continuities and discontinuities in men's sequential unions and births. How do early sexual or family experiences influence men's views of sexual relationships and their careers as partners and fathers? How do prior unions and/or parenthood influence the likelihood that men or women will form new unions, and do the effects differ for different types of unions? What are the effects of prior unions or parenthood on fertility in later unions? And how do children born prior to a current union combine with those born in the union to influence the quality or stability of unions?

Most of our information about men's unions and births is derived from information from and about women. For some of the research questions we address, such information may be quite adequate. For example, differences in birth rates between cohabiters and married couples apply to the male as well as to the female partner, and are probably adequately reported by either. For other questions, information from women may be sufficient for analysis, so long as they are asked to provide parallel information about their male partners. Married women, for example, may be able to accurately report their husbands' prior unions and births, particularly marital unions and births, as well as their own marital and birth histories. In many situations, however, we need information from men as well as from women. Whenever we address questions about the subjective dimensions of sexual unions, or wish to know how men's values, attitudes or plans influence their fertility, men's views -- or combined views of partners -- are required. Men may also be the only accurate source of information about their prior sexual unions, pregnancies and births of children with whom they are no longer in contact. We identify situations of "missing male data" throughout the review section of this essay, and discuss the issue further in subsequent sections on available data and recommendations for future data collection and analysis.

Relationship Contexts for Male Fertility Behavior

Sexual relationships have both demographic and interactive dimensions. The key demographic parameters of such unions are coresidence (cohabiting versus visiting unions) and union duration. Coresidence and union duration, in turn, may be associated with interactive relationship characteristics such as commitment, communication, emotional intimacy, power, and social embeddedness. Each of the relationship dimensions we identified may have distinct influences on sexual behavior, contraception, abortion, marriage, and/or union disruption.

Commitment implies some degree of obligation to participate in a reciprocal and enduring relationship, the kind of relationship in which children are most easily raised. In a context in which arranged marriages are outside the boundaries of accepted practice, commitment to a relationship is generally viewed as voluntarily given. It may or may not be sanctioned by legal marriage, but legal marriage limits to some degree the ease with which the commitment may be broken. The degree of commitment is likely to be associated with the level of investment in relationship-specific capital such as shared living quarters, friends, and love. To the extent that such "investment capital" accumulates over time, it is likely to relate to the duration of the relationship, although the pace and trajectory undoubtedly varies from one relationship to another and commitment may never develop in many sexual relationships. To the extent that commitment implies a shared understanding of the future and reflects intimacy and caring, it is likely to facilitate communication. In studies of union formation and fertility-related behavior, indicators of commitment often include items describing the nature of the relationship: going steady, living together, intentions to marry, or perceived probabilities that the relationship will endure.

Communication may vary in relationships according to what is communicated, styles of communication, and communication frequency. Most studies linking communication in relationships to reproductive behavior have relied on relatively simple and specific indicators, e.g., self-reports of whether individuals discussed topics such as birth control or what to do if a pregnancy occurs with partners before having sex. But the general ease with which a couple communicates about thoughts, feelings and goals is likely to underlie good communication about sex, contraception or pregnancy.

Emotional intimacy refers to the level of affect and perceived closeness shared by partners. Few studies have measured this directly, and it is particularly surprising that the multitude of marital quality measures are rarely included in fertility studies. Intimacy is likely to foster good communication, and lead to commitment, but may not be so strongly associated with other interactive dimensions such as power or social embeddedness.

Power in relationships is a complex phenomenon, ranging from relatively benign forms of persuasion to coercion and violence. Most of the research on relationship power and fertility is linked to gender-traditional roles and attitudes. Research shows clearly that cohabiting relationships are more egalitarian than marital relationships, in large part because those who marry are selected from those with more traditional views of men, women, and relationships (Clarkberg, Stolzenberg and Waite 1995). Indicators of power relationships in fertility studies are often indirect, based on the relative social and economic resources of partners (education, employment) or on membership in cultural groups that hold more or less traditional gender views. In some cases, direct measures of the couple's gender attitudes are included.

Within the power dimension, we also include the most extreme forms of coercion and abuse. A large body of evidence indicates that coercion and abuse between intimate partners is not as rare as we might hope. According to national surveys, of the nearly 4 million assaults on women each year, nearly one third are committed by intimate partners (National Center on Child Abuse and Neglect, 1995; National Research Council, 1996). Partner abuse is more likely in cohabiting relationships compared to dating and married relationships, slightly lower in marriage than in dating relationships. Cohabiting couples also reported the highest percentage of severe assaults (Straus and Gelles, 1990). While abuse and coercion was once seen more as impulsive or "out of control" behavior, it is now seen more as a deliberate course of action throughout the relationship, with the goal of achieving control over the other partner. This course of action may include sexual, physical and emotional abuse, as well as economic and other forms of coercion. (Schechter and Ganley, 1995 as cited in National Resource Center on Child abuse and Neglect, 1995). Abuse and coercion between intimate partners likely has significant impacts on all aspects of fertility--sexual intercourse, contraception, and pregnancy resolution.

Laumann and his colleagues (1994) describe sexual relationships as embedded within social relationships with the degree of embeddedness varying across types of

sexual relationships. For example, a sexual relationship between spouses is typically crisscrossed with a myriad of social relationships - with friends and kin, with members of the same and different generations. This web of interconnections increases the social capital inherent in the marital relationship and increases the likelihood that all involved will support the continuation of the relationship and react protectively if the relationship is threatened. In the case of nonmarital relationships, the existence of such a protective and supportive social web is less common, at least initially. Sexual relationships between unmarried partners will differ at the start in the degree to which partners know and are known by each others' families, friends, neighbors, and coworkers; as relationships progress the nature and density of these ties will change. The nature of these social webs is likely to have an important effect on how families and peers balance support for the relationship with other conflicting goals, such as maintaining a norm of uncommitted sexual relations (the "hit and run" ethic described by Anderson (1994) in his study of inner city disadvantaged youth) or protecting a son from the burdens of early paternity. To measure the "embeddedness" of relationships requires data on social ties and reference groups; other indicators of embeddedness may include the context in which the partners met, how they currently interact with social networks, and the duration of the relationship.

The demographic and interactive dimensions we have identified may not be the only dimensions of relationships that influence fertility behaviors, but they are those most commonly cited in theoretical explanations or operationalized in empirical analyses. Our review of relationship quality and fertility behavior is not completely balanced with respect to each dimension, since not all dimensions have been given equal attention in fertility research. We address the need for additional data collection and research with respect to dimensions of relationships in our discussion of available data and our final recommendations.

Men's Nonmarital Unions and Births

Nonmarital unions vary from casual sexual encounters to long-term cohabitation. Although we will argue below that cohabitation is a fundamentally different type of union and should be treated separately from nonresident unions, much of the data and analysis on nonmarital fertility does not distinguish cohabiters from other couples. Where such distinctions have been made, we discuss differences between the two types of unions.

Relationships and Sexual Intercourse

Sexual frequency is generally higher in more committed unions, particularly cohabiting unions. Sonenstein, Pleck and Ku (1992) found that frequency of intercourse was higher among young men who had lived with or been engaged to a partner in the past year. Thornton (1990) found that men and women in relationships with partners they planned to marry had much higher frequencies of sexual intercourse than those not planning to marry their partners. Also, sexual frequency was higher among those in exclusive dating relationships compared to those who dated different boys or girls during a recent period. In a national study of men 20-39 years of age, Billy and his colleagues found a strong relationship between type of relationship and single men's sexual frequency in the past four weeks, with median frequencies highest (7.6) among those who were cohabiting, lower (4.7) among those involved in a steady relationship, and lowest (0.2) among those reporting no steady relationship (Billy et al., 1993). Thus, from a simple exposure point of view, more committed sexual relationships have the potential for higher rates of nonmarital pregnancy. One difficulty with this research is that reports of commitment or closeness or other characteristics of a union are typically obtained from only one partner and then more commonly the woman than the man.

The meaning of sexuality and its links to relationship commitment appear quite different for young unmarried men and women. Ethnographic research (Anderson 1994, Stern 1994) suggests that the issue of commitment is a central point of tension and conflict in sexual relationships among low income youth. The conflict rests on stereotypical gendered differences in meaning of relationships to young men and women. The stereotypically female meaning sees relationships as providing commitment, love, and stability; sex is exchanged in hopes of attaining these. The stereotypically male meaning sees sexual success and control of women as a route to social status and power among other men, and relationships with women are managed to achieve this end. Anderson describes how male peer groups enforce a norm of exploitative sexual relationships with women by ridiculing boys who are perceived to be controlled by female partners. Stern describes peer-assisted strategies to monitor sexual exclusivity of female partners.

Marsiglio (1988) uses scripting theory and subjective expected utilities to study adolescent males' attempts to bring sex into relationships with females. The dominant model for adolescent male sexuality over the past decade has been that of recreational or casual sex. "At the heart of this recreational sexual script has been the image that sex is a valuable commodity in its own right, regardless of the relationship context in which it might occur, that sexual activity is desirable as early in a relationship as possible, that more sex is better, and that opportunities to have sexual relations (heterosexual) should generally not be squandered" [p.289]. This dominant script downplays the idea that the level of commitment to partner might modify the script. However, there is evidence that greater commitment does lead young men to put a more "marital-type" script into effect. In early adolescence young men are searching for independence and are less likely (than

women) to report that first sex was in the context of a meaningful relationship. The goal of sex is act-centered not relationship-centered. Actual and perceived congruity of partners' scripts will influence the course of interaction.

The extent to which stereotypical attitudes pervade sexual relationships in different population groups is not well known. Pleck and colleagues' (1993) analyses of masculine ideology among U.S. adolescent males clearly show diversity in the extent to which young men adhere to stereotypical views. Stern (1994) notes conflicting values held by women in a young lower class white population, desire to be open about sex warring with traditional norms about promiscuity and the threat of pregnancy without recourse to paternity. These attitudes do appear to be associated with behavior. Among young teenage women, those holding stereotypical gender attitudes (e.g., most women can't take care of themselves without help from men) begin having sex earlier than those with less traditional attitudes (Foshee and Bauman 1992, cited in Moore et al, 1995). Pleck and his colleagues (1993) found that young men (15-19) with traditional male gender attitudes had more sex partners, were less close to their current partner, and disagreed that males have a responsibility to prevent pregnancy.

Some researchers report that by adolescence, both boys and girls endorse scripts for sexuality that go so far as the legal definition of rape. For example, fully 25 percent of middle school, high school and college students say it acceptable for a man to force sex on a woman if he spent money on her (National Academy Press, 1996). It is well documented that in many instances, sexual intercourse occurs within a coercive setting. According to Kris Moore, about 25% of women teens reported experiences of sexual abuse at some time, and between 25 and 30 percent reported being pressured to have sex (Moore, 1989; 1995). This is roughly consistent with findings reported by Small and Kerns (1993) indicating that 21% of adolescent females reported unwanted sexual contact during the previous year. Yet another study indicates that 17 percent of high school students and 11 percent of middle school students reported having unwanted sex. (Erickson and Rapkin, 1991).. Koss and Gidycz (as cited in Yllo, 1993) find that 27% of college women recalled an incident that met legal definition of rape since age 14, and over half of these involved a date. In another study relating to young adults, 75% of college men admitted to getting a date drunk or high in order to try to have sex with her (Mosher and Anderson, 1986 as cited in National Research Council, 1996). Intimacy does not appear to be a barrier to coercive sex; Small and Kerns (1993) reported that the percent of unwanted sexual contacts that were initiated by boyfriends was much higher than the percent initiated by first dates (31 percent compared to 18 percent). Koss and colleagues (1993) estimated that over half of date rapes occurred between couples who were in a steady dating relationship.(Koss et al, 1993). June Henton reports that one quarter of victims and almost one third of offenders thought dating violence was sign of love (Gelles and Straus, 1988)

Relationships and Attitudes Towards Pregnancy

Few unmarried women want to become pregnant, but those that do may perceive themselves to be in more committed relationships. Zabin (no date) studied pregnancies to 263 low-income women enrolled in clinics at an urban medical center, finding no difference in pregnancy wantedness between women with a “serious partner” and those without a serious partner, net of marital and cohabitation status. Those in a less serious relationship, however, are more likely to say they didn’t want a child with that partner. Cohabiting women are more likely than single noncohabiting women to intend to have a child (Bachrach 1987; Rindfuss and VanDenHeuvel 1990) and to have a planned birth (Manning 1992; Zabin no date). What is missing from all of this research are the birth intentions or pregnancy wantedness of the women’s partners.

Some evidence suggests a strongly gendered difference in the meaning of pregnancy to unmarried partners. Young men -- particularly those who are disadvantaged in terms of social and economic achievement -- are said to see babies as tangible evidence of sexual prowess and adult status (Anderson 1994). Traditional gender attitudes are also associated with the belief that making a partner pregnant validates masculinity (Pleck et al. 1993). For young women, on the other hand, pregnancy may be viewed positively -- even if unintended -- because it could lead to greater commitment from the child’s father as well as signaling adult status.

Relationships and Contraceptive Use

The association between relationship commitment and pregnancy wantedness or intendedness makes the association between relationship characteristics and contraception somewhat difficult to interpret. On the one hand, we would expect more committed, enduring, and/or coresidential unions to be characterized by better communication, greater intimacy, and more egalitarian decision processes, all of which should facilitate effective contraception. To the extent that the couples who are best able to contracept are also those most likely to want or intend children, the association between relationship qualities and contraceptive use may not be straightforward.

Net of intentions, it is clear that communication and effective contraception are greater in longer-term, more committed relationships (Brown and Eisenberg 1995, pp 174-176; Marsiglio 1993). In a recent study, Forrest and Frost (1996) found that union duration was directly associated with contraceptive use. Bachrach (1987) found greater contraceptive use among cohabiting than noncohabiting single women.

Support of the male partner may be critical to contraceptive use within unions, particularly the use of traditionally “male” methods of contraception such as condoms and withdrawal (Kantner and Zelnick 1979; cited in Pleck, Sonenstein and Swain 1988). Santelli and his colleagues (1996), studying women participating in an inner-city street survey, found that partner support strongly predicted the development of intentions to use

condoms with a main partner. Resnick (cited in Edwards 1994) studied 550 adolescent females who used school- and community-based clinics, finding that those who discussed the risk of sexually-transmitted diseases or pregnancy with their partners were more likely to use condoms consistently and less likely to experience either STD or pregnancy. Wilson (1994, cited in Moore et al., 1995) found in a sample of black males age 11-19 who attended an urban medical clinic that communication with partners prior to sexual intercourse was not associated with greater contraceptive use, but was specifically associated with greater condom use.

The gendered character of sexuality and fertility is also reflected in contraceptive behavior. Pleck and his colleagues (1993) reported that young men with more traditional gender attitudes less likely to use condoms than those with more egalitarian views.

In recent years, condoms have become even more important as prophylactics than as contraceptives, and as a result the association between dimensions of couple relationships and condom use has become more complex. Condoms are less likely to be used in longer-term relationships than in shorter-term relationships (Forrest and Frost 1996; Ku, Sonenstein and Pleck 1994); are less likely to be used with "primary" than with "secondary" sexual partners (Laumann et al., 1994; Sabogal, Faigeles and Cataria, 1993; Grinstead, Faigeles, Binson and Eversley, 1993; Peterson, Cataria, Dolcini and Faigeles, 1993); and are less likely to be used as relationship commitment increases (Tanfer, et al., 1993; this study shows that use in the past 4 weeks was reported by 18% of married men, 24% of cohabiting men, 44% of single men with a regular partner, and 46% of single men without a regular partner). The condom's efficacy in preventing disease transmission and the primacy of that reason for use among unmarried couples carries with it a subliminal message linking use to actual or suspected lack of exclusivity between partners, perceived risk in the partner's sexual history or perceived lack of "cleanliness". Stern's (1994) ethnographic work reveals ideas among some young women that unprotected sex is an expression of love and commitment. Santelli and his colleagues (1996) find that intentions to use condoms are much less likely in emotionally close relationships. In the case of condom use, then, many of the relationship characteristics we associate with more effective contraceptive use actually work against the use of this method.

It has been suggested that contraception is less likely when sex occurs within a coercive context, but evidence for the connection is limited (Bohigan, 1979). Danielson et al (1990) describes male sexual impatience (dissatisfaction with being sexually inactive) as an attitude that may often be linked to coercive sexual behavior. They find that a male's level of sexual impatience was the strongest indicator of the intention to engage in unprotected sex.

Relationships, Pregnancy and Pregnancy Outcomes

The combined influence of sexual frequency, pregnancy intentions, and contraception appear to produce a higher nonmarital pregnancy rate in more committed unions. For example, Sonenstein, Pleck and Ku (1992) reported that nonblack men were more likely to report a pregnancy in the past year if they had been engaged than if they were not engaged. This result appeared to be due to the higher rates of intercourse reported by engaged men, as the percentage of sexual acts protected by contraceptive use did not differ between engaged and non-engaged nonblack men. Among black men, engaged men reported higher sexual frequencies, less consistent contraceptive use, higher rates of unprotected intercourse, and yet, no more frequent pregnancies than men who were not engaged. Manning (1992) reports that cohabiting women were more likely to become premaritally pregnant than single women of similar ages, an effect that appears stronger for Puerto Rican than for white non-Hispanic or African-American women (Manning and Landale 1996). These variations in the effects of cohabitation or engagement could reflect differences in desires or intentions to have a child. Here is another instance in which both partners' desires or intentions to have a child need to be considered in order to explain how relationship quality and stability influences nonmarital births.

We know very little about unions and abortion decisions. In visiting unions, the greater the intimacy, the less likely the woman will have an abortion and the more likely she is to parent her child (Moore et al 1995 p. 106). Zabin (no date) reported that abortion was more likely when a woman did not want a child with her current partner, even if she claimed the relationship was serious. And in another study of women presenting for pregnancy tests, Toledo-Dreves, Zabin and Emerson (1995; table 3) found that those who conceived by their first partner and ended the pregnancy with abortion had known their partners for a shorter period of time than those who carried the pregnancy to term. Decisions about placing a child for adoption versus parenting have not been linked clearly to closeness to partner (Moore et al., 1995:113). Again, what is missing from this research are the views of the woman's partner about abortion and/or having a child.

Nonmarital Pregnancy and Relationship Outcomes

Pregnancy may also affect the course of the relationship, leading some unmarried couples to cohabit, some to marry, and others to part. The degree to which a nonmarital pregnancy leads a couple to marry prior to the birth of the child appears to be declining. Most of the increase in births to unmarried women is due to changes in marriage patterns rather than to changes in sexual or reproductive behavior of unmarried women (Bachrach, 1996; DHHS 1995; O'Connell and Rogers 1984; Smith, Morgan and Koropecj-Cox 1996). It is misleading, however, to treat these two components of family formation as if they were unrelated. Morgan, Offutt and Rindfuss (1995) have shown that the decline in "shotgun" marriage almost completely accounts for the increase in nonmarital births since the early 1960s. That is, a good deal of the influence of

changed marriage patterns on nonmarital fertility is changing patterns of marriage in response to pregnancy. The probability of marriage during a first premarital pregnancy ending in birth declined from 52% of women conceiving during the period 1960-64 to 27% of those conceiving during 1985-89 (Bachu, 1991).

Attitudes toward nonmarital childbearing have either followed or accompanied behavioral change; between 1974 and 1985, the percent agreeing that "there is no reason why single women shouldn't have children" increased from 31% to 47% among white women and from 34% to 48% among black women. When nonmarital childbearing comes closer to home -- acceptability of one's own daughter having a child out of wedlock -- approval is much lower, but increased from 8% to 14% over a similar period (Pagnini and Rindfuss 1993). Akerlof and colleagues argue that declines in pregnancy-induced marriage are due to changes in the negotiating power of unmarried women; the technological innovation of the contraceptive pill and increased availability of abortion made women less able to demand a promise of marriage in exchange for sex, since the chances of sex leading to pregnancy and pregnancy to birth were supposedly much more under the woman's control (Akerlof, Yellen and Katz 1996). Without direct evidence on women's and men's views of female or male responsibility for reproductive decisions and behaviors, it is difficult to assess the validity of their claims.

The link between pregnancy outcomes and union formation is complex. Not only do elements of the relationship affect decisions on how the pregnancy is resolved, but decisions of pregnancy resolution affect decisions about the future of the union. It is difficult to disentangle these issues. For example, marital and nonmarital births are the result of the intersection between both fertility decisions (whether to carry the pregnancy to term), and relationship decisions (whether to marry in response to the pregnancy).

There are many aspects of the couple's relationship which likely influence how the pregnancy is resolved and how it affects their union. Recall that sex -- particularly unprotected sex -- in visiting unions may have resulted from opposing male and female goals (freedom and control versus commitment). For the woman, then, pregnancy must be followed by childbirth in order to fully lay a claim on the man. For men, whether the child is born or not may be viewed as irrelevant under the "hit and run" norms for sexual behavior. Furstenberg (1995, p.130) quotes a young man describing his reaction to his girlfriend's pregnancy to illustrate how lack of commitment to the relationship plays a role: "Well, if you want to keep the child, that's fine with me... Whatever you want to do. I don't want you to be held back just cause you doing it for me." He is explicitly telling her that he doesn't want to be obligated to HER. Women are also assumed to be sexually promiscuous and there is strong peer support for denying paternity.

Furstenberg (1995, p.130) describes the "conflicting motives to sort out - responsibility, pride of paternity, and interest in maintaining or not maintaining the relationship, among others" -- if a man is told about a pregnancy. He notes that uncertainty about paternity can be a major factor in the man's response because

relationships are often casual and impermanent. Furstenberg describes a period of negotiation involving agreement on paternity and decisions about whether to have the baby, in which not just the partners but their families and friends participate. The latter two can be supportive or nonsupportive of the relationship. Anderson (1994) agrees that some young men have deep relationships with their partners and take pregnancy and paternity seriously (note the connection between the relationship and response to pregnancy). And, like Furstenberg, he says that the man's mother can play an important role in how he responds. Her previous knowledge of the pregnant woman is an important factor in whether she supports his denial of paternity or encourages responsibility.

In the disadvantaged population where such norms operate, male peer groups may urge financial responsibility for babies but steer clear of recommending marriage to mother.

Marriage is deeply distrusted -- in part as a loss of personal freedom, in part as loss of control over the woman. Money, not coresidence or marriage, is seen as basic to being in control, and lack of stable jobs makes it difficult for young men to provide reliably for their children. Marriage on any other terms is not wanted. In no case in Furstenberg's interviews did the family encourage marriage or cohabitation as a way of increasing the father's commitment. Even in the mid-1960s parents in Furstenberg's Baltimore sample expressed doubt whether fathers could or would provide steady support for their children regardless of whether they married. In addition, if a marriage does end, the consequences could be worse than if the couple never married. Furstenberg (1995) reports from his study of Baltimore women in the 1960s that those who entered unstable marriages fared worse than those who did not marry because they left school and had more children early. Twenty years later, marriage was seen as a foolish thing for a young person.

One of the reasons the dimension of commitment is important is that it may determine, to a large extent, the degree to which men can enjoy access to the benefits of fatherhood. When children remain in the custody of their mother, fathers' access to their children and to father roles tends to depend on a continued relationship to the mother. Willis (Willis and Haaga, 1996) suggests that disadvantaged unmarried men, who enjoy a wide choice of female partners but lack economic opportunities that would enable them to support a family over the long run, develop strategies that substitute multiple uncommitted relationships (many of which may be fertile) for a single committed relationship with a substantial investment in fatherhood. Willis's model implies an inextricable connection between men's decisions about relationships and their approach to childbearing and fathering, operating via the "cost" of commitment and the benefits it brings in terms of access to children.

Nonetheless premarital pregnancies carried to term do precipitate marriage to the child's father, even if less frequently today than in the past (Bennett, Bloom and Miller

1995; Goldscheider and Waite 1986; Landale and Forste 1991). In some cases the marriage takes place shortly after the child's birth rather than before, but is still likely to be a marriage between the child's two parents (Kobrin and Waite 1984; Teachman, Polonko and Leigh 1987; Waite and Spitze 1981). Suchindran, Koo and Griffith (1985) reported that intermarital births also increased the likelihood of remarriage for previously divorced women. In both studies, nonmarital births to black women did not have such precipitating effects on marriage.

At least some of the nonresident partners who do not marry choose to cohabit in response to a pregnancy. Manning (1993) reported that, among single noncohabiting women who became pregnant and had a first live birth, 35% married and 6% cohabited before the child was born. This is consistent with analyses of the same data by Bumpass and Raley (1995) showing that a significant proportion of women having children out of wedlock in fact live with the child's father at the time of the birth. Bennett and his colleagues (1995) also suggest a positive effect of pregnancy on the formation of cohabiting unions. Among Puerto Rican women, the effect of pregnancy on cohabitation was particularly strong for the youngest (age 14-15) women, but continued to have positive effects on cohabitation as well as on marriage for women through age 23 (Landale and Forste 1991). These few studies show that it is essential to identify the resident status of male partners in order to understand responses to nonmarital pregnancies.

Comparisons of cohabiting and noncohabiting single women suggest that prior commitment influences a marital response to pregnancy. Cohabiting women are more likely to marry following a premarital pregnancy than noncohabiting women (Manning 1993), though this effect was not found for women under 20 or for African-American or Puerto-Rican women (Manning 1993; Manning and Landale 1996). The authors suggest that cohabitation is a stage in the marriage process for the white adult women, so that a premarital pregnancy simply speeds up the marriage date. For other women, however, cohabitation is an alternative to being single and raising a child alone, and does not imply a commitment to marry in the event of pregnancy. This interpretation is supported by the finding that cohabiting women who already have a child are somewhat less likely to marry in response to a second pregnancy than are childless cohabiting women. Again, what is missing from this analysis is any information from the male cohabiters or visiting partners about their views of the relationship or the pregnancy.

We know very little about the continuation of visiting unions after the birth of a child. In a study of adolescent women presenting for pregnancy tests (Toledo-Dreves et al, 1995), 65% of those who had carried their pregnancies to term were still in a relationship with the same partner two years later, compared with 34% of those who aborted the pregnancy. Only about 5% of those still in union had married, although many of those who had not married still expected to do so.

Schoen et al. (1996) recently argued that children provide a source of social capital by creating a web of new ties with kin, other parents and institutions. The nature, reach and strength of ties in these child-centered webs are probably strongly dependent on pre-existing circumstances including the commitment between mother and father and the social relations between their families. Linda Burton's (1995) work suggests that even in cases where the baby's father is not involved with the child other members of the father's family may become involved. Yet in other cases whatever social capital is generated by a birth may completely bypass the father and his kin.

Pregnancy can also lead to conflicts and stress within the relationship, with increased risk of abusive behavior (O'Keefe, 1995; Schechter and Ganley, 1995). Victims of partner violence are three times more likely to be injured during pregnancy than nonbattered women (Stark et al., 1981). In a representative national sample, 15 percent of pregnant women were assaulted by partners at least once during the first half of pregnancy, and 17 percent during the latter half (Gelles 1988). Another study of women at prenatal clinics found 17 percent had suffered physical or emotional abuse during pregnancy (McFarlane et al. 1992). An additional study of public clinics in Baltimore and Houston found that 22% of pregnant adolescents reported being abused during their pregnancy (National Network for Youth 1995).

However, the nature of this link between pregnancy and coercive or abusive situations is unclear. Many researchers agree that instances of coercion or abuse increase with stressful situations, with changes in family situations, with socioeconomic problems, and with social isolation. To the degree that pregnancy can increase any of those risk factors, it may increase the likelihood of abuse. The research does not seem to indicate, however, that pregnancy increases the likelihood of abuse independent of these other risk factors.¹⁰

When couples cohabit or marry in response to a pregnancy, the premarital or pre-union pregnancy does not appear to have a strong effect on subsequent dissolution of the union (Billy, Landale and McLaughlin 1986; Bumpass, Castro martin and Sweet 1991; Waite and Lillard 1991).¹¹ Manning and Smock (1995) provide one of the first analyses of cohabiting couples; they found no significant effect of pregnancy or the birth of children on cohabiters' separation. Wu and Balakrishnan (1995) found, for Canadian

¹⁰See Bohigan (1979, as cited in National Research Council, 1993), and Gelles and Straus (1988). While originally Gelles and Straus had concluded there was an independent link between pregnancy and abuse, they later revised their conclusions. Based on their second National Family Violence Survey of 1985, they concluded that their original finding was based on spuriousness, and that the true effect they had been detected was that of age. They concluded that women age 18 to 24 were much more likely to suffer from abuse than older women, and that age was the strongest predictor of abuse.

¹¹Using a more socioeconomically select sample (high school graduates), however, Stephen, Ryan and Gregori (1995) did find a positive effect of premarital conception on disruption. They also found a stronger effect for men than for women, which could arise from underreporting of premarital conceptions by men who remained married.

couples, that having a first child in the cohabiting union decreases the likelihood of separation, with even larger effects for birth of second or subsequent child (see also Wu 1995). Bumpass and his colleagues (1991) suggest that norms for premarital sex and pregnancy are sufficiently accepting that only the most committed couples marry in response to a pregnancy, couples who might have married in any case at a later date. These couples may also have been those who were most desirous of having children together. Although Brown and Eisenberg (1995) cite several studies showing a negative effect of unintended pregnancy, most of which occurred premaritally, on the stability of subsequent marriages, these associations may result from unmeasured factors that increase probabilities of both unintended birth and marital disruption.

Men's Marital Unions and Births

Marital relationships may vary along the same dimensions as nonmarital relationships, but may also be distinguished from nonmarital relationships in demographic and interactional terms. While cohabiters make a stronger commitment -- through coresidence -- to their relationship than nonresident partners, married couples make an even stronger commitment by subjecting themselves to the legal requirements of marriage. Persons who marry rather than cohabit are more strongly committed to the institution of marriage (Axinn and Thornton 1992; Thomson and Collela 1992; Thornton, Axinn and Hill 1992), and exhibit stronger personal commitment to their particular relationship (Nock 1995). These commitments produce a much lower dissolution rate for marriages than for cohabiting relationships (Bumpass and Sweet 1989). Married persons are happier in their relationship than are cohabiters, and also get along better with their extended kin (Nock 1995). Finally, married partners are selected from those with more traditional gender attitudes, compared to cohabiters (Clarkberg et al. 1995).

Differences between marriage and cohabitation -- and particularly between marriage and visiting unions -- have varying implications for the behaviors leading to childbearing and parenthood. Sexual frequency is sufficiently high not to be a major factor in marital fertility, although it is lower than among cohabiting couples and declines over time (Call, Sprecher and Schwartz 1995; Laumann, Gagnon, Michael and Michaels 1994). Given the commitment of marriage, it is not surprising that married women are more likely than unmarried women to be seeking pregnancy. They are also, however, more likely to use contraception or to be sterilized, if pregnancy is not sought, compared to unmarried women (Mosher and Pratt 1990, cited in Brown and Eisenberg 1995). As a result, marriage produces a much lower rate of unintended pregnancy (Forrest 1994, cited in Brown and Eisenberg 1995) than in nonmarital unions. On the other hand, the marital relationship provides more support for carrying the child to term, so that married women are much less likely to have an abortion than unmarried women, even if they did not intend to have a child (Forrest 1988, cited in Brown and Eisenberg 1995). Taken together, these patterns combine to produce a much higher percentage of intended births among married women than for women in other types of unions: 60% compared to 12% for never-married women and 31 % for formerly married women (Forrest 1988, cited in

Brown and Eisenberg 1995). Loomis and Landale (1994) found a higher rate of childbearing in first unions when the couple was married rather than cohabiting.

Surprisingly little research has been conducted on the nature of a marital relationship and fertility-related behaviors. As we might expect, marital happiness is directly associated with sexual frequency (Call, Sprecher and Schwartz 1995). As for unmarried couples, it appears that marital communication increases contraceptive use when couples do not want to have a child (Beckman, Aizenberg, Forsythe and Day 1983). Rainwater (1965) showed in an early study that marital quality was positively associated with effective contraception, and Miller (1986) found that such effects were particularly strong for coitus-dependent methods which require partner cooperation. Severy and Silver (1993) found higher rates of female sterilization when husbands were unhappy in the marriage, and higher rates of male sterilization when wives were unhappy. It is not clear whether this pattern represents an effect of sterilization choice on marital quality or the reverse.

Most of the research on marital relationships and births has focused on the question of husbands' influence on contraceptive use and pregnancy. Several studies have documented considerable agreement but also significant disagreement between partners (e.g., Muhsam and Kiser 1956; Czajka 1979; Beckman 1984; Westoff, Mishler and Kelly 1957; Westoff, Potter, Sagi and Mishler 1961; Williams 1991). Early analyses suggested that wives' influence on couple contraception and births was greater than that of husbands (Beach, Campbell and Townes 1979; Beach, Hope, Townes and Campbell 1982; Beckman, Aizenberg, Forsythe and Day 1983, Bumpass and Westoff 1970; Clark and Swicegood 1982; Freedman, Freedman and Thornton 1980; Fried and Udry 1979; Townes, Beach, Campbell and Wood 1980; Westoff et al. 1961). More recent analyses have tested differences between partners' influence, most often finding it to be relatively equal (Miller and Pasta 1995; 1996b; Sobel and Arminger 1992; Thomson forthcoming; Thomson and Williams 1982; 1984; Williams 1986). Miller and Pasta (1996a) suggest that the relative influence of spouses may vary across parity-specific decisions.

Some of this research also shows that spousal disagreement has unique effects on contraception or births. For example, among U.S. couples surveyed in the 1950s and 1970s, those who disagreed about having a child were as likely to use contraception as couples who both wanted to postpone or to avoid pregnancy (Thomson 1989). On the other hand, disagreeing couples in the 1950s (Princeton Fertility Survey) had third birth rates exactly in the middle of rates for couples who both wanted a third child and those who did not (Thomson, McDonald and Bumpass 1990). Williams' (1986) analysis of the Indianapolis Fertility Survey suggests that childbearing disagreements during the Depression led to delayed births rather than to a middle outcome, and this pattern has been replicated among recent childbearing cohorts (Miller and Pasta 1994; 1995; 1996a; Townes et al. 1990; Thomson forthcoming). These results support the theory of inertia proposed by Beach and his colleagues (Davidson and Beach 1981; Beach et al. 1982), in which couple disagreement favors the status quo. When contraception is routine,

disagreement inhibits decisions to cease contraception and attempt pregnancy, favoring the partner who does not want a child.

A few studies have investigated the power/dominance dimension of marital relationships in terms of couple contraceptive and childbearing decisions. Fried and Udry (1979) found that effects of husbands' desires were stronger among African-American and/or dual-earner married couples, whose marriages are most likely to be egalitarian. Thomson (forthcoming) reported no such differences, however, using a more recent, nationally representative sample and direct measures of gender attitudes. Miller and his colleagues (1991) reported that men in relatively more egalitarian marriages were more likely than gender-traditional men to obtain a vasectomy, instead of the wife obtaining a tubal ligation.

Research on children and marital disruption has implications for the relationship context of marital fertility. Some research suggested that children increased marital stability (e.g., Heaton 1990; Waite and Lillard 1991; Wineberg 1992). Lillard and his colleagues used simultaneous hazard models to estimate the extent to which the apparent positive "effect" of children derives instead from a negative effect of marital instability on childbearing. If couples believe their relationship is weak or likely to dissolve, they may be less likely to attempt pregnancy. Their research demonstrates that, indeed, marital instability inhibits childbearing (Lillard and Waite 1993; Lillard, Panis and Upchurch 1994). What this research also shows is that the positive effect of children on marital stability remains and has been underestimated in models that do not incorporate the negative effect of marital instability on childbearing (Lillard and Waite 1993; Lillard, Panis and Upchurch 1994). They also report that larger family sizes (three or more children) may stress the marriage to the point of disruption, and that children have a stronger stabilizing effect on marriages among whites than among blacks (Lillard et al. 1994).

Sequential Unions and Births

Decreasing age at menarche/puberty, increasing rates of cohabitation and divorce, and greater acceptance of nonmarital childbearing and childrearing mean that many if not most individuals will experience more than one union, and a substantial proportion of parents will have children with more than one partner. Current estimates are that more than half of all first marriages will dissolve, and that approximately three-fourths of divorced persons will remarry. Since most young people cohabit before marriage, and the dissolution rate is higher for cohabitation than marriage (Bumpass and Sweet 1989), the chances of having more than one cohabiting or marital partner are even higher than the chances of marrying twice. And most of these disruptions and new unions occur during the childbearing years, increasing the chances of having children with more than one partner. These demographic conditions require us to consider continuities and discontinuities in unions and parenthood across the individual's life course.

There appear to be strong continuities over time in an individual's approach to and experience of relationships. Thornton (1990) finds that those who start dating early, start going steady earlier, have sex earlier, and have sex more and with more partners. Similar results are reported by Laumann et al (1994) for sexual experience prior to age 18 and experience in the late teen years. These individual differences may be related to the timing of physical maturation as well as other biological and family and social experiences. There is a large literature that links growing up in single parent families (and the instability of family relationships implied) to patterns of union formation and sexual behavior in adolescence and early adulthood. Furstenberg (1995) points out that the images of fathering brought into adolescence can have a strong influence on what happens when a man's partner becomes pregnant. Young disadvantaged men grow up with strong idealized values about what a father does but little consistent experience of being fathered; the result is unrealistic expectations for fatherhood that make commitment to the father role difficult.

An unknown factor in sexual continuities is abuse that men may have suffered as children, particularly sexual abuse. Researchers estimate that at least one in six boys suffer sexual abuse, and many hypothesize that such experiences can profoundly influence a boy's later sexual behaviors (see for example Allen, 1980, Becker et al 1986, Burgess et al 1987, as cited in National Research Council, 1993). Male children exposed to child abuse are more likely to become delinquents, and delinquents are more likely to be sexually active (see for example Widom 1989 as cited in National Research Council, 1993; Elliot and Morse, 1989; Synder and Sickmunc, 1995) One study found that adolescent males who had suffered sexual abuse were three times more likely to have caused a pregnancy compared to sexually active adolescent males who had not suffered sexual abuse (Nagy et al, 1994). Widom (1989) indicates that roughly one third of men exposed to abuse as a child will also initiate abuse with an intimate partner as an adolescent or adult. More extensive research has shown a link between child sexual abuse and pregnancy among adolescent females (Child Trends, Inc., 1995; Boyer D. and D. Fine, 1992.; Bulter and Burton, 1990; Rainey et al 1995; Roosa et al, 1995).

Ambert (1989) provides a compelling story of continuities in adult life, following couples who separated or divorced through subsequent marriages and divorces. When an initial respondent remarried, she obtained retrospective information on the new spouse's prior marriages (if any) and continued to interview the new spouse even if the second marriage dissolved. She concludes that the multiply-divorced were less stable persons than the once-divorced, but that their former spouses were not significantly different from the former spouses of the once-divorced. That is, multiple divorces do not seem to stem from choosing the wrong spouse or a problem spouse, but from one's own inability or unwillingness to make a commitment and work on a close relationships.

When individuals experience more than one marriage or union, and/or have children out of wedlock, early demographic events may influence subsequent events, or both events may be the result of life-course continuities. The first such sequence

involves premarital births and the formation of subsequent unions, i.e., unions with someone other than the child's other parent. Most of the available data do not tell us whether cohabitations or marriages after a child's birth involve the two parents or not, but Bennett and his colleagues (1995) report that most unions occurring more than six months after the child's birth involve a new partner. Their data are, however, limited to residential unions (cohabitation and marriage). The ethnographic research tells much about the forces that undermine the continuation of nonresidential relationships between disadvantaged mothers and fathers, but doesn't provide any way to measure relationship stability and the formation of new unions.

Bennett and his colleagues (1995) demonstrate quite unequivocally -- using multiple data sets -- that nonmarital childbearing reduces the likelihood that a woman will marry during her childbearing years. (See also Cherlin 1980; Landale and Forste 1991; Lillard, Panis and Upchurch 1994.) Some of this effect appears to be due, however, to the increased likelihood that she will cohabit -- with the child's father or someone else. Landale and Forste (1991) did not find a similar positive effect, but a negative effect of nonmarital births on subsequent cohabitation, among U.S. women of Puerto Rican descent. Whether nonmarital fatherhood has similar effects for men's formation of subsequent unions remains to be seen; one might hypothesize that men's subsequent unions would not be influenced by nonmarital fatherhood, since they often have little contact with these children and -- as we have seen from analyses reported above -- may not even report them to interviewers.¹²

The effect of children from prior unions on women's remarriage appears to be relatively small, and limited to large numbers of children (Koo, Suchindran and Griffith 1984; Smock 1990; Suchindran, Koo and Griffith 1985). Koo and her colleagues (1984) reported that neither number nor age of youngest child influenced remarriage for black women, but this was because black women with more and younger children were less likely to divorce after separating from their husbands. Lillard, Panis and Upchurch (1994) used simultaneous hazard models to demonstrate a negative effect of children on remarriage of white women; the effect for black women was limited to children born out of wedlock. They claim that the endogeneity between childbearing and marriage could explain why studies based on independent models of childbearing and marriage have not found an effect of the first or second child on remarriage.

We know virtually nothing about the effects of men's children from prior unions on their likelihood of remarriage. As for nonmarital births, we might expect that the effect of children would at the very least be smaller for men than for women, since they

¹²Teachman, Polonko and Leigh (1987) did find a positive effect of premarital births on marriage among white men as well as white women, and also reports a positive effect for black men that increased into the mid-twenties. Their analysis was limited to high-school graduates, however, and -- as noted earlier -- was unable to distinguish marriages between the child's parents and to other partners.

rarely live with children from a previous marriage, and often fail to provide for or spend time with them.

How do children from a prior union (including nonmarital or nonresident unions) influence fertility in a new union? Virtually all of the research speaking to this question deals with second marriages. In addition, most of the research on births in remarriage includes just half the picture -- we know about the woman's prior births but not those of her new husband.

Early research on remarriage fertility focused on the potential loss of exposure time to the risk of pregnancy. Investigators hypothesized that women who divorced would have fewer children because they had shorter marital durations. Remarriage allowed white women to "catch up" in completed fertility to women who remained in their first marriages (Thornton 1978; Kalwat 1983). Black women's fertility, on the other hand was substantially reduced by marital disruption, whether or not they remarried (Thornton 1978). Glick and Lin (1987) estimated that, among women who married twice, approximately one-third of their children were born in the second marriage.

These aggregate data suggest that a woman's parity at remarriage should negatively affect childbearing in the new marriage, but the findings are mixed. Bumpass (1984) and Loomis and Landale (1996) reported an inverse association between number of children and the probability of any birth in remarriage; Wineberg (1990) found an effect only at two or more children; and Griffith et al. (1985) reported no differences in birth probability by the woman's number of children at remarriage, except for the fact that childless black women were less likely to have a child than were black mothers who remarried. Loomis and Landale (1996) also failed to find a parity effect for black women. Discrepancies between studies may be due to differential information on the husband's prior marital status, age of the woman's youngest child at remarriage, or to differential selectivity into divorce and remarriage.

Using simultaneous hazard models to control for the mutual effects of marital disruption and fertility, Lillard and Waite (1993) found that the negative effects of a woman's children from prior marriages on childbearing in her second marriage could be accounted for by the effect of those children on the second marriage's stability. Lillard, Panis and Upchurch (1994), using a different sample, reported a net negative effect of children from prior marriages on conception in a second marriage. Models estimating the simultaneous effect for men's children and marital disruption would not converge (Waite 1997), which may be due to problems in men's reports of their union and birth histories.

Most remarried women are married to men who have also been married before, and many if not most of those men are likely to have had children. Levin and O'Hara (1978) demonstrated that the husband's prior marriage, but not wife's, reduced the wife's completed fertility. Only because remarried women were more likely to marry remarried men than are first-married women (56% versus 7%), did remarried women in their

sample have smaller numbers of children than women who remained in first marriages. Bumpass (1984) and Griffith et al. (1985) also reported a negative effect of the husband's prior marriage on the likelihood of births in the woman's second marriage.

Two recent but unpublished studies (Haurin 1992; O'Keeffe 1988) were able to estimate directly the influence of a second husband's children on remarriage fertility. Part of the "catching up" of women in remarriages was explained by the finding that, among both men and women, the first birth to a remarriage occurred much sooner than to a first marriage (Haurin 1992). Effects of the partners' prior parities suggested a shared desire for two children, taking account prior children. Large numbers of children living outside the household were a negative influence on births. Haurin found that the man's children had a stronger negative effect on remarriage fertility than did the woman's children. O'Keeffe (1988) also reported a negative effect of the husband's children from a prior marriage and of his child support payments on his current wife's birth expectations, but found that the effect is explained by the husband's age. In addition, no effect of husband's children from a prior marriage was found for women who were in their first marriage and who already had a child (premaritally), were Catholic, had married before 1965, or who were older at marriage.

There are clearly forces encouraging fertility in second marriages, net of prior births, since children may be viewed as the important product of a loving marital relationship. Clarke and Gregson (1986) reported that 70 % of men requesting vasectomy reversals wanted to have child with new partner. But the degree of force also surely depends on whether each partner in the remarriage has already become a parent, the extent of their responsibilities to prior-born children, and perhaps their earlier experiences of parenting (Clark 1982). We are only beginning to identify the basic demographic parameters of fertility in second marriages; have virtually no information on fertility in sequential cohabiting or visiting unions; and know extremely little about how relationships with and responsibilities toward prior-born children influence fertility in subsequent unions. What is needed here is not only the perspective of men, but also information about the marital and parenting experience of previous as well as current partners.

We noted earlier that children appear to have a stabilizing influence on marriages, at least during the early years of a child's life. But what about children from a prior union? Such children do not represent a shared investment in the marital relationship, and may detract from time and attention available for a new partner. We alluded to this effect in citing the work of Lillard and Waite (1993) who found that the negative effect of children from a prior marriage on fertility in a remarriage was accounted for by their negative effect on remarriage stability.

Most of the research on the stability of stepfamily marriages does not distinguish between children born to unmarried mothers who subsequently married and children born in previous marriages. Several studies have suggested that premarital births increased the

likelihood of subsequent marital dissolution, though it is not clear if those marriages were to someone other than the child's father (Billy, Landale and McLaughlin 1986; Lillard and Waite 1993). In any case, effects of premarital births appear to be absent or weaker for black women than for white women (Billy et al. 1986; Waite and Lillard 1991). In more recent data, Bumpass et al. (1991) report no significant effect of premarital births on marital disruption. They suggest that having a child out of wedlock no longer creates the stress of social stigma for a new marriage, and/or that a general decline in marriage rates has made those marriages that do include such children more selective of committed, high-quality relationships than in the past.

Nonmarital births may occur to divorced women as well as to those who have never married, but the evidence for negative effects on second marriages is mixed. Suchindran, Koo and Griffith (1985) found no effect for white women, but an increase in disruptions for black women who had children between marriages. Wineberg (1992) reported higher disruption rates for white women who had an intermarital birth, at all durations of second marriages; for black women, effects were negative at short marital durations, positive at longer durations. In a second study, however, he found no net effect of intermarital births on disruption controlling for the woman's total number of children at remarriage (Wineberg 1992).

Children from previous unions have also been shown to increase the likelihood of divorce in women's second marriages (Lillard and Waite 1993; Wineberg 1992). Such children are more likely to have ongoing relationships with their nonresident father, possibly creating conflict between the stepfather and biological mother. These studies do not tell us, however, about the stepfather's children from prior marriages who may also be a source of stress and conflict in the remarriage.

Data Needs

We identified in the above review needs for data on: (1) relationships -- including demographic and interactive dimensions, and reported from both partners' points of views; (2) gender scripts, including gendered meanings of sexual behavior, contraception, and pregnancy; and (3) linked union and birth histories of partners, both past and present.

Relationships. We identified several dimensions of nonmarital and marital relationships that influence one or another of the behaviors leading to parenthood. We need data to provide a comprehensive view of those relationships: duration, coresidence, commitment, communication, emotional intimacy, power/dominance, coercion/violence, and social embeddedness. We especially need to carefully distinguish cohabiters from other nonmarital partners, in all future research on family formation and fertility, male or female. Recent analyses suggest that cohabitation is, for most, a stage in the marriage process; to disentangle "courtship" cohabitation from "alternative lifestyle" cohabitation, we need to have direct data on relationship dimensions, including plans for marriage.

We also need information from both parties to the relationship, in order to understand gendered views of relationships and childbearing and in order to construct relationship indicators that represent the couple rather than the individual. Relationship data should be longitudinal so that we can disentangle self-selection into relationships from relationship effects on childbearing. We need to pay particular attention to gendered power in relationships, including coercion or violence and links to gender-traditional views of men and women.

Gender Scripts and Gendered Meanings. We need information on gender scripts in sex, contraceptive use, pregnancy; men's as well as women's motivations to prevent or achieve pregnancy within and across relationships; and both partners' responses to pregnancies that occur. Both partners' views of sexual and contraceptive responsibility, attributes of contraceptive methods (including sterilization), and abortion are needed; in nonmarital, particularly visiting unions, we need information on both partners' views of adoption, marriage, and childrearing responsibilities. Measures of extended family responses and views of alternative pregnancy resolution decisions may be valuable when the prospective parents are relatively young or economically dependent. In all types of unions, we need to know whether men's views of the tie between the union and children are different than those of women; and whether variation in such views is associated with male fertility or union formation and dissolution. Since stepfamily experience is increasing, we need to know how men and women view the other partner's children in relation to their own childbearing desires and goals.

Individual and Shared History. We need better "fathering histories". Because the vast majority of women reside with their children, fertility histories provide a closer approximation to "mothering history" than is the case for men. Almost no data exist on the existence of or contact with stepchildren (including cohabiting partner's children) from a prior union.

When a union forms, we need to know about both partners' union and birth histories in order to understand the force of individual life-course continuities in comparison to the influence of partners' lives and actions. We usually have this for women but not for men. Some of this information can be provided retrospectively from individuals, but we also need to follow both partners from a dissolved union into new unions and births. Ideally, we would like union histories to include visiting as well as cohabiting and marital unions, but the latter two are most important.

Existing Data on Men's Unions and Births

Past studies have included very little information about nonmarital partners and relationships; the individual was the unit of analysis and we attempted to explain fertility-related behavior in terms of her/his individual characteristics and experiences. Previous cycles of the National Survey of Family Growth (NSFG) collected some demographic information about current male marital partners and in some cases proxy reports of

partner's attitudes towards pregnancy. NSFG collected current cohabitation in Cycle 3 (1982), partial cohabitation histories in Cycle 4 (1988), and complete cohabitation histories in Cycle 5 (1995), but only for women. Earlier versions of the National Survey of Adolescent Males (NSAM) asked some questions about partners, the numbers of sexual partnerships, and relationships with selected partners. The Kantner and Zelnik studies collected information about relationships to first sexual partner. The National Longitudinal Study of Youth (NLSY-79) has added cohabitation histories to prior data on births and marriages, but has no partner information relating to first or more recent sexual activity. Selected studies -- especially smaller-scale studies focused on psychosocial aspects of sexuality and pregnancy -- have asked questions about communication with partners (e.g., did you discuss birth control?). We have several couple data sets from regional samples, many with panel data to assess influence of partners' childbearing attitudes or plans on contraceptive behavior, pregnancy and birth. But they have limited information on relationship dimensions. Almost no studies have attempted to sample unmarried relationships rather than individuals.

Recent and current data collection efforts have moved toward a much better coverage of nonmarital relationships and relationship issues. To wit:

National Survey of Men, 1991: Although this study did not have a strong focus on fertility issues, it was one of the first to relate pregnancy to specific sexual relationships. Thus, for up to 8 non-marital relationships that lasted 30 days or more since January 1990, the study collected information on pregnancies that occurred within each relationship, and the planning status and outcome of each (up to 3). It also collected information about the partners' demographic characteristics, and about sexual and contraceptive behavior in the relationship. The study cast a wide net in looking at relationships, including nonsexual relationships, nonmarital sexual relationships, and marriages and cohabitations. Some studies are underway using these data, and they may provide a valuable resource for understanding links between relationship characteristics and fertility risk. These data are unique because they focus on an older population of men that has received insufficient study in the past.

National Longitudinal Study of Youth, 1997: collects more information on dating, sexual behavior, contraception. In addition, for each live birth the characteristics of the other biological parent (other than the respondent, who may be male or female) are ascertained. Characteristics include race, age, school enrollment status, work status, schooling level as of the time the pregnancy began. Also, the status of the relationship at the time the pregnancy began is asked: had they had sex only once or twice, were they in an on-going sexual relationship, or "other". Information on sexual or dating partners is collected only if a birth occurs or if the partners marry or cohabit. Thus, the 97 NLSY panel provides an improved information base for describing the partnerships into which children are born, but not for relating these fertile relationships to all relationships. The characteristics and dynamics of visiting relationships cannot be related to fertility outcomes. This is a major drawback. NLSY 97 is likely to provide extremely useful

longitudinal data reflecting the social and economic outcomes of more committed types of relationships, but will be unable to say anything about the processes by which these more committed relationships evolve, or fail to evolve, from less committed ones, and about the processes associated with out-of-wedlock births that do not involve co-resident parents.

The National Longitudinal Study of Adolescent Health (1994-96): This will be an extremely powerful data source for studying the development of adolescent romantic relationships. Data are collected from males and females; and information is collected on "romantic" relationships (defined both subjectively and behaviorally) during a recent period. The design of the study will enable researchers to relate many characteristics of these relationships to the sexual behavior, contraception, pregnancy and pregnancy outcomes that may or may not occur within them. The strength of the study is the quantity of information about the social and community contexts within which relationships develop: what happens within relationships can be related to their embeddedness in social networks, partner characteristics, the values of partners' peers and families, community norms, and more. Another strength is the ability to look, in many cases, at relationships from both partner's points of view. The drawback is that at present there are no plans to follow this sample beyond the one-year followup period originally funded, limiting the number of fertility events that will be observed in this young sample. Also, questions about pregnancies caused were not asked of young men because it was believed the responses would be downwardly biased.

National Survey of Family Growth, Cycle 5 (1995): Will collect far more information about the male partners of women aged 15-44 than previous cycles have done. In addition to virtually all marital and cohabitational partners, information on sexual partners since January 1991 is collected. Information includes the nature of the relationship, dates of sexual intercourse, and demographic characteristics. It is not clear how well one can link this to the woman's pregnancy/fertility history: although no direct question appears to link pregnancies to the partner that caused them, the father's age at the time of pregnancy is ascertained, and a match based on the timing of pregnancy, the timing of relationships, and father's age might be feasible. These data are supplemented by proxy reports of how the male partner felt about the pregnancy, pregnancy outcome, and current information about child support and living arrangements. Further, there are extensive history data for the female respondent allowing researchers to relate her exposure to disrupted family patterns during her development along with experience in educational and work domains to her relationship patterns and fertility within various types of relationships. The retrospective data provide a backwards view of patterns of relationships over time; since the survey is a one-time cross-sectional study only those aspects of relationships than can be expected to be reliably recalled and reported by a female informant can reasonably be examined. This study provides a valuable source of data on relationships from the female viewpoint, and on the characteristics of men and relationships that produce pregnancies and births. Expansion of the survey to include men would yield little in terms of describing births, but might yield something in terms of

the knowledge we have of how men participate in relationships that lead to pregnancy and birth.

National Survey of Adolescent Males, 1995 new cohort: includes richer partner-specific data than previous rounds. For the most recent and next most recent partner, information on how met, age, how long known before intercourse, sex, contraception and pregnancy, and power and conflict in the relationship. There are subsets of these questions for first partner ever and up to additional 4 partners in the past 12 months. None of the questions appear to address affect, commitment, expectations about relationship duration or marriage, exclusivity. With respect to pregnancies, captures age of partner, abortion preferences of both partners, outcomes. Followup has similar types of data; plus longitudinal record back to 1988. There is much that these data can contribute to looking at relationship-specific behavior from the male viewpoint; also there are some important holes in the data when looking at the factors that probably determine fertility events and outcomes within relationships. With these data it will be possible to document some of the factors, but not all, that contribute to across-relationship variability in behavior.

National Survey of Families and Households, 1988-93: includes complete union and fertility histories for primary respondents, both male and female, though problems have been found with some men's reports of birth and union histories. NSFH has little information on nonresident unions. Couple data from NSFH-1 are not completely parallel in providing information on each partner's children, and are limited to current partners. Questions about the first husband/wife included whether he/she had been married before and/or had children at the time of the union. Union and birth transitions between waves is quite detailed, but again there is limited information on nonresident unions. Both waves include the full range of relationship indicators for resident unions, both time periods. Attitudes toward union formation and dissolution (both normative and personal) can be used to identify selection processes into and out of unions and into parenthood. Dating and sexual experience, early family formation events are available for the older focal children (age 13-18 in 1988, 18-23 in 1993), and the next younger group of focal children provides information on dating and sexual experience at the second wave.

Year 2000 Survey of Income and Program Participation. Past SIPP panels have collected a complete marital history but accept proxy reports from women to do this. They also asked a question on number of children ever fathered, presumably also allowing proxy answers. Information about nonmarital partners and about fertility-related behaviors and intentions is not collected. The longitudinal design and collection of data for all household members (even if they subsequently leave the household) gives some (very limited) leverage for linking fertility to relationships.

Survey of Program Dynamics SPD: 1992-93 SIPP panel follow-up; individuals were 15 and older in 1992-93. No questions on men's contraception or childbearing (or relationships) are planned but could be added to future rounds.

Youth Risk Behavior Survey: may be useful for monitoring sexual behavior of in-school youth in very rough terms; increasing requirements for active parental consent may bias estimates of trends. The survey includes a question on how many times pregnant/caused a pregnancy.

Vital statistics: Identifying who the father is on birth records is probably improving, but important biases may persist. Also, the records contain no history, and relationship information is at best limited to marital status of mother. Efforts here should focus on improving measurement of what the relationship is between child's mother and father (which may not be the same as marital status), and perhaps adding a question on number of births previously fathered by father.

Recommendations

Improving Data

1. Collect data on marital and nonmarital relationships -- and their connection with fertility -- from both the male and female perspectives. Wherever possible, studies should gather information from both parties to the relationship, so that relationship indicators can be constructed based on couple- rather than individual-level data.

2. Conduct longitudinal studies that follow the process of fertility and family formation across the life course. Studies should follow both men and women over time to study the development of nonmarital, cohabiting, and marital relationships, to assess the characteristics and dynamics of relationships, and to link these characteristics to fertility and fertility-related behavior. Such studies would allow us to link adult outcomes (about which we know little) with adolescent attitudes and behaviors (about which we know a great deal). It would also allow us to study self-selection into and out of relationships and help to distinguish such selection effects from relationship effects on fertility. Life experiences such as child or sexual abuse and continuities in personal motivations, abilities, and other characteristics are likely to have persisting effects across the life course; we should study how these interact with relationship formation, characteristics and dynamics to influence fertility.

3. Improve the availability of comprehensive data on the dimensions of marital and nonmarital relationships, including duration, coresidence, commitment, communication, emotional intimacy, power/dominance, coercion/violence, and social embeddedness.

4. Develop data on fertility and fertility-related behavior that distinguish cohabiting and other nonmarital partnerships, and that allow differentiation of cohabiting relationships that are leading to marriage and those that are likely to persist without marriage.

5. Develop improved (unbiased) information about the men who are responsible for pregnancies and who father births in different types of relationships, and particularly about those who are not married to the baby's mother. Efforts should be made to obtain this information through birth and administrative records as well as through parent histories.

6. Collect fertility and union history data for both parties to sexual unions, both past and present. This will produce better "fathering histories," that is, better histories of men's experience living with and interacting with their children and their partners' children, linked to their histories of union formation and dissolution.

7. Collect information that will allow us to determine the nature and timing of marriage and cohabitation with the father in relation to pregnancy and birth.

8. Improve data on the motivations, attitudes and intentions relating to relationships and childbearing among men and women in all types of relationships. Include gender scripts relating to sex, contraception, and pregnancy resolution; motivations to prevent or to achieve pregnancy across and within relationships and responses to pregnancies that occur; views of sexual and contraceptive responsibility and the attributes of contraceptive methods and abortion; views of marriage, adoption and single parenthood among unmarried partners; and views of the link between the union and children or parenting roles. Attitudes toward children from the partner's former unions in relation to each partner's childbearing desires and goals should be included.

9. Thoroughly exploit the potential of newly collected data for analyzing the connections between relationship characteristics and dynamics and male fertility. Accomplish goals for improving data by building on existing data collection efforts (e.g., NLSY, NELS, AdHealth) if possible, and by new data collection efforts where necessary.

Areas of Needed Research

1. Study links between gender-traditional views of men and women and their sexual relationships, gendered power in relationships (including coercion and violence), and the processes leading to union formation/dissolution and fertility.

2. Study the influence of all dimensions of relationships on sexual behavior, contraception, pregnancy, and pregnancy resolution.

3. Study the effect of pregnancy and birth on the continuation and nature of relationships between unmarried partners, and the factors which influence relationship outcomes.

4. Study how the experience of parenthood and the costs and benefits it entails depend on the relationship context in which pregnancy, birth and parenthood occur.

5. In studies of sexual and contraceptive behavior within relationships, particularly nonmarital relationships, develop models that take account of the multiple risks and benefits of sexual behavior, including disease, unintended pregnancy, wanted birth, and relationship commitment.

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APPENDIX G

**THE BIOLOGICAL AND HEALTH ASPECTS OF MALE FERTILITY:
IMPLICATIONS FOR USE OF REPRODUCTIVE HEALTH CARE SERVICES**

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Introduction

There are a number of important differences between males and females that affect their fertility. Males are potentially almost unlimited in their number of offspring, while females are not. Also, females can be certain about motherhood, while males can not be certain of paternity. Due to these and other biological realities, it is important that we obtain information from both males and females to fully understand their fertility-related behavior as well as be able to provide the types of services that can best meet their reproductive health needs.

While the male is able to reproduce during a larger proportion of his life than a female, he is practically ignored by the medical community in matters related to reproductive health. In a society that expects women to be primarily responsible for taking the necessary steps to avoid pregnancy, the service delivery community has tended to disregard her male partner. Even though men have expressed the belief that they should share the responsibility for birth control with their partners, family planning efforts have been directed almost exclusively toward women. However, due to the increasing public costs of unintended pregnancy, the negative impact of absent fathers and issues of child-support enforcement, as well as the growing concern about AIDs and STDs, more attention than ever is being focused on males.

Research has provided some of the much needed information about male fertility-related attitudes and behavior but more information is needed. Also, because much of the information about males' family-planning behavior is based on reports from women, it is crucial that there are more efforts to obtain similar information directly from the men. By attempting to understand the experiences and perspectives of men, we may better understand their attitudes about personal responsibility and other issues influencing their use of reproductive health services. This paper examines these issues and addresses the relevant data that currently exist and that are needed to further understand these issues.

Biological Differences

Recognizing the biological differences between males and females is necessary for understanding their differential effect on fertility. Biology, just as much as the environment and culture, must be considered in the overall picture of human sexuality. Biology acts to set potentials or limits in each individual which establish the parameters within which culture and environment can exert their influence. As Udry (1996) states, "the variance in individual biology partially determines the choices we make."

At birth, there is no visual means of distinguishing the sexes aside from the genital differences. However, the sexes are known to develop with different physiological capabilities. Within the first 28 days after birth, about 25 percent more males than females die. The higher ratio of male to female deaths continues throughout

life. The factors involved in these different mortality figures obviously reflect inherent physiological sex differences.

Boys grow faster than girls for the first 6 months of life. At the age of puberty, girls and boys experience physical changes that render them capable of reproduction. The production of new hormones in girls results in breast growth and the onset of menstruation. Boys, for whom sexual maturity occurs about one or two years later than girls, experience changes in their body and their voice.

Evidence exists which reveals that, as adults, men are more likely than women to experience erotic arousal by visual stimuli. Men often enjoy feelings of stimulation just from observing women. Women, on the other hand, are more likely to be aroused by what is often referred to as "sweet talk," possibly due to having significantly greater auditory acuity than men.

Also of significance to our understanding of the differences between the sexes is the fact that the differential treatment accorded them by society also influences their behavior. From the moment an infant is born, its biological sex influences how it will be treated by society. Possibly the most important fact about the baby for those aware of its birth is its sex. Equipped with this information, people feel they are better able to choose the appropriate clothes and toys for the newborn.

Early on, boys tend to exhibit what are regarded as male characteristics such as physical aggression, assertiveness and dominance, while females tend to be passive, nurturant, and dependent. These characteristics are reinforced and perpetuated by cultural and societal influences, thereby affecting their behavior in every aspect of their lives.

While recognizing the biological basis for behavior, it is also important to understand the manner in which this behavior is affected by societal forces. According to Udry (1996), biological factors affect behavioral predispositions, while social forces control how those predispositions are expressed. One possible area of societal influence that could do more to promote responsible behavior for men in particular is the community of health care providers.

Males' Use of Health Care

In general men tend to neglect their health. To better grasp the issues related to males' use of reproductive health care services, it is important to understand their reluctance to seek medical services altogether. One possible explanation may be found in their early socialization. Boys are told not to cry, not to show their feelings, to be a man, not a sissy or a cry-baby. A result of this conditioning could be men's reluctance to ask for help from anyone, including medical care providers. For many men, sickness means weakness and a threat to their masculinity. The suppression or denial of feelings of pain

and the attempt to stay tough may result in self-destructive behavior among men such as drinking, using drugs, dangerous driving, as well as violent and abusive behavior.

Why Women Have Been the Primary Target

For too long, men have been excluded from the domains of sexual responsibility and reproductive health. This is the result of policy and program emphasis on women as the key figures in contraceptive decision-making. Both traditional and modern methods of family planning focus solely on the woman because avoiding unintended pregnancy or limiting family size is almost always considered a female concern.

The reasons services have primarily been targeted to women is because women experience the consequences of the unwanted pregnancy more directly. Since the introduction of the pill and other effective methods, the most reliable methods of reversible contraception are female methods. Also, early contraceptive development was spurred by political pressures and financial support from feminists who sought a method by which women could regulate their own fertility. Following the success of the oral contraceptive for women, little interest developed for waging a comparable all-out campaign for a male method.

Reason for Attention to Males

The serious consequences of unintended pregnancy and their increasing public costs has brought long overdue attention to the issue of male responsibility in pregnancy prevention. Judicial and legislative actions have come about that are intended to hold men accountable for their involvement in childbearing. The negative impact of the absent father on the child's development has also spurred attention to men.

Due to the AIDS epidemic, renewed interest in the use of contraceptive methods for disease prevention has occurred among scientists, public health officials and the general public. Therefore, a large part of the explanation for the focus on men has been motivated by concern about HIV and other sexually transmitted diseases. Also, efforts to avoid both the risks of HIV and STD infection requires the use of dual methods, which necessarily involves the active participation of both the male and female.

Factors Affecting Male Use of Contraceptives/Condoms

There have been a number of studies on male fertility behavior and attitudes toward contraceptive responsibility (Billy et al., 1993; Ku et al., 1994; Marsiglio, 1993; Pleck et al., 1993; Tanfer et al., 1993; Zelnick and Kantner, 1980). Findings from these studies shed light on important aspects of male sexual responsibility, covering such topics as background characteristics, attitudes about fatherhood and attitudes toward contraception.

A substantial body of literature pertaining to the determinants of condom use has also emerged. Factors that have been found to influence use of condoms include perceptions of reference group behavior (i.e., whether the male thinks his male peers use condoms); knowledge about condoms, contraception, pregnancy risk, and AIDS; sex education and exposure to other sources of information; and personality factors such as self-esteem and locus of control.

Conservative sex role beliefs have been found to be related to negative attitudes toward male contraceptive use and the belief that contraceptive responsibility is solely that of women. The belief that men share responsibility in preventing pregnancy is associated with consistency of condom use. Males who are married and more educated agree more often with the view that contraception is not only the woman's responsibility.

Barriers

One of the barriers to the utilization of contraception by males is a lack of perceived susceptibility to the problem of unintended pregnancy. Another barrier particularly with young males is a lack of knowledge about pregnancy risk and contraceptive methods. Misinformation concerning health hazards associated with contraceptives has also been shown to influence men's behavior. Another potential impediment to effective contraceptive utilization may be sexual assault.

Many studies have also documented a significant relationship between the perception that condoms reduce male pleasure or are embarrassing and low levels of condom use. One of the major reasons given by men for not using condoms is because of embarrassment involved in obtaining them. Also, condoms are perceived as inconvenient and difficult to use.

Limited Contraceptive Options

The level of male involvement in the use of contraceptives may reflect the limited options available to men. The methods currently available for men are condoms, withdrawal, periodic abstinence, and vasectomy, none of which has the widespread acceptability of some methods for women. A serious drawback of the condom, withdrawal, and periodic abstinence is men's lack of confidence in their effectiveness. Coitus-dependent methods tend not to be as accepted as coitus-independent methods. The difficulty and expense of reversal still limit the appropriateness of vasectomy to those wishing to stop rather than space childbearing; and the method's irreversibility remains the biggest obstacle to its acceptability. Where as vasectomy is little used, it is associated with impotence, loss of virility or physical weakness.

New methods of male fertility regulation currently undergoing clinical trials have the potential of being effective as well as reversible, non-surgical, and long-acting.

Injectable or implantable hormone methods for men are as yet experimental. A pill for men remains a distant prospect.

Male Reproductive Health Issues

Men have particular health care concerns of their own and suffer from problems which need attention. These include fears of sexual inadequacy, ignorance about sexual and reproductive functioning, risk of STDs, risk of unwanted pregnancies, problems of infertility, or misunderstandings about how male and female-controlled contraceptive methods work.

Avoiding Pregnancy

While a number of factors are related to a man's belief that preventing pregnancy is solely the woman's responsibility, there is evidence that a significant proportion of males are motivated to avoid pregnancy. Research indicates that the main reason men report using condoms is actually for birth control (Sonenstein and Stryker, 1997).

HIV and STDs

Interest in avoiding infection from HIV and STDs makes screening for these diseases important to men. Evidence exists, however, that some men are unaware that a person infected with an STD could be asymptomatic. Many also have the misperception that a routine physical exam could determine whether or not they were infected.

Male Infertility

Artificial insemination with husband's semen is one of the treatments provided in cases of male infertility. Evaluation of sperm morphology is usually conducted to determine sperm count and sperm motility.

Impotence related to Testicular and Prostate Cancer

Current reproductive technology provides hope for future procreation by men facing sterilizing cancer treatment. Certain medical technologies are available to protect the reproductive potential of adult males undergoing sterilizing cancer treatments. The present clinical means for preserving the potential reproductive capacity of men at risk is cryopreservation of sperm before treatment begins, followed by assisted reproductive technology when pregnancy is desired.

Age-related Reproductive Health Issues

The consequences of adolescent sexual behavior continues to be a major public health concern. Large numbers of adolescents engage in sexual activity without protection either from pregnancy or sexually-transmitted diseases. While a great deal of information has grown on the subject of sexual activity and pregnancy-related behaviors of adolescent females, not nearly as much is available about adolescent males.

Males tend to initiate sexual activity at younger ages than females. The peer group is often one of the most powerful influences on adolescent behavior and in many instances is the principal source of sex education for male adolescents. According to Anderson (1989), some young men may become involved with peer groups that emphasize "sexual prowess as proof of manhood, with babies as evidence" A traditional masculine ideology was also found to be related to the increased belief that pregnancy enhances masculinity (Pleck et al., 1993).

Much of the response to the problem of teenage pregnancy and the possible risks of AIDS and STDs among young people has been in the form of school-based prevention efforts. Many of these efforts have focused primarily on increasing knowledge and teaching communication skills, with the intended outcome of reducing behavior that place young people at risk of pregnancy, HIV and other STDs.

Many of the partners involved in teen pregnancy are older men. However, the characteristics of the teen father and the extent to which teen fatherhood adversely affects his subsequent life outcomes is relatively unknown. The unique reproductive health concerns of this subgroup need to be explored.

Older Men

While there is nothing comparable to male menopause, men do experience changes during middle-age. Male hormone levels decrease with age and older men suffer from decreased sperm production, diminished sexual desire, and loss of lean muscle mass. They also experience shrinkage of the testicles after age 40 and have an increased risk for enlargement of the prostate by age 50.

Couple Dynamics Influencing Family Planning Decisions/Behavior

Research has shown that attitudes and behaviors of men are affected by the type of relationship in which they are involved. Evidence reveals that unmarried couples in which the men report more committed relationships are more likely to use birth control more often and more effectively than couples in less serious relationships. A study by Inazu (1987) showed that men in more serious relationships reported being more concerned about the well-being of their partner than those in casual relationships. Similar results were found in a focus-group study by Landry and Camelo (1994) where it

was revealed that communication between partners about contraception was least likely to occur in casual relationships. There is also evidence that the couple's degree of communication about contraception predicts level of contraception among adolescents (Polit-O'Hara and Kahn, 1985).

Studies of females indicate that condom use is higher when females ask men to use condoms. Findings also indicate that males' perception that the partner would appreciate his using a condom is an extremely important factor in men's use of condoms (Sonenstein and Pleck, 1995).

Male Infertility

The causes of male infertility are largely undetermined, and our knowledge of the external factors affecting the male reproductive system is still limited. In particular, the role of specific environmental and occupational factors is not completely clear. However, there is evidence that exposure to certain physical and chemical agents encountered in the occupational environment might affect the male reproductive system (sperm count, motility and morphology, libido, and fertility) and/or related pregnancy outcomes (spontaneous abortion, stillbirth, low birth weight and birth).

Various confounding factors related to lifestyle (smoking, alcohol and diet) or socioeconomic status may also affect sperm quality or pregnancy outcomes. Some cases have demonstrated that stress can also adversely affect reproductive function.

Effects of Childhood Sexual Abuse on Males

Non-voluntary first sexual intercourse is correlated with earlier initiation of sexual activity, as well as increased numbers of lifetime sex partners. Findings pertaining to the long-term effects of child sexual abuse in males have revealed problems including guilt and self-blame, low self-esteem and negative self-image, problems with intimacy, sexual problems, compulsions, substance abuse and depression. A number of clinicians' case studies indicate that male survivors of childhood sexual abuse may experience attempts to prove their masculinity by having multiple female sexual partners, sexually victimizing others, and confusion over their gender and sexual identities, and a sense of being inadequate as men.

Family Planning Policy and Programs Affecting Service Delivery to Males

Evidence reveals that only a small proportion of the clients served by family planning clinics are men. Despite evidence which shows that men, including adolescent males, are motivated to use condoms and have expressed the belief that they should share the responsibility for birth control with their partners, family planning efforts have generally ignored them. Policy and program efforts that have primarily targeted women

have made it unlikely for men to recognize the potential benefits of family planning services for themselves.

One possible explanation for the lack of involvement of men in family planning services is the fact that the provision of condoms, the primary reversible method of contraception available to men, does not require a medical setting, as well as the fact that this method can easily be made available to the female clients.

Other possible reasons may include the attitudes of the service providers, financial constraints, and lack of training about how to provide services to men. Physicians and/or family planning providers, for example, may assume that their clients would find a contraceptive unacceptable for men and might consequently be reluctant to recommend the procedure. Thus, the resistance of physicians could interfere with attempts to improve awareness and use of male methods.

The structural barriers that affect women's use of family planning services may also apply for men such as inaccessible delivery hours, difficult to reach facilities, and cost of services. Both a lack of information about the types of reproductive services that are available for men and about where the services that exist can be obtained may also serve as barriers to utilization of services by men.

Without special strategies to attract men, it is unlikely that men will seek services at family planning clinics even when they know they are available to them. Men may view these clinics as places for women and their children to go, and consequently may find it difficult to enter them. However, as Sonenstein and Pleck (1994) so aptly stated, "males are not a lost cause for preventive efforts."

What We Need to Know

We need to have more information about the medical and health services available to young men at risk for parenting. Information is also needed about men's use of and awareness of the availability of family planning services as well as their intention to use these services if they were available. We also need to determine the knowledge and perceptions of men about reproductive health services as well as their feelings about their experiences with these services.

We need to know why few males turn to family planning clinics or other sources of reproductive health care for contraceptive services. We also need to know the characteristics of the men who do seek reproductive health services.

Also needed is information about whether or not there are institutional or structural barriers to males' use of reproductive health services. Are there perceived social pressures which inhibit or encourage use of family planning or other reproductive

health services. These forces can include partner relationships, cultural norms, and experiences with health care providers.

We need to identify ways to encourage males to use reproductive health services and to identify elements of a service delivery system that are amenable to change and improvement to ensure their use. More information should be obtained from clinics serving larger proportion of males to see how they have succeeded in attracting them.

More information is also needed about the impact of various intervention strategies on male contraceptive behavior.

The attitudes and beliefs of non-sexually active adolescent males are unknown. The factors that influence their abstinence need to be investigated further to determine their level of responsibility for contraception when they later become sexually- active.

The majority of relevant behavioral research on men is focused on their use of condoms and rarely on their support of or participation in their partners' use of various methods. Information about males' knowledge regarding effective contraceptive practices and about the female reproductive-cycle need to be obtained.

We do not have information on experiences with child abuse that may impact interpersonal and decision-making skills among young men. More research is needed to identify and examine the factors involved and to determine how these experiences affect men's attitudes about male responsibility in pregnancy prevention.

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APPENDIX H

**DATA NEEDS REGARDING MALE REPRODUCTIVE HEALTH
AND REPRODUCTIVE HEALTH SERVICES**

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Introduction

This report focuses on data sources that measure, or could potentially measure, items related to men's reproductive health, including sex education and particularly reproductive health services. Prominent data sources are reviewed and gaps in data collection are identified.

Much of the interest in increasing male involvement in reproductive health is driven by the premise that such involvement leads to healthier reproductive health outcomes for men and their partners. Indeed, sex education, counseling and health outreach services that have reached men have been shown to promote subsequent reproductive health by delaying the onset of sexual activity, and improving contraceptive efficacy (Kirby et al. 1994; Frost and Forrest, 1995; Danielson, 1990; Terefe and Larson, 1993).

There is a need for more detailed data about how men receive sexual health information and services. What type, when, from whom and why male involvement in reproductive health should be examined broadly to include the wide array of information sources and services that are related to their reproductive health. For example, sexual health information from peers, parents, the schools, the media and other informational sources should be included in measures of how men learn to maintain their reproductive health across the life course. A wide array of health services needs to be monitored as well, ranging from school athletic physicals and general physicals (where reproductive health is often a tertiary service at best, but not one that should remain uncounted), to more direct reproductive health visits made by men or visits where men accompany their partner to a family planning, abortion, prenatal, delivery, or post-natal care visit.

Sex Education/Information

There is a great deal of survey data that indirectly measures sex education via the respondent's knowledge of pregnancy and STD prevention. The Youth Risk Behavior Survey (YRBS), the National Surveys of Adolescent Men (NSAM), the National Survey of Men (NSM), and the National Health and Social Life Survey (NHSLS) are all prominent examples of this approach.

For instance, the NSM measures the respondents' knowledge of: the characteristics STDs (including HIV/AIDS), the period when a woman is most likely to become pregnant, and contraceptive methods by type. The NHSLS probes respondents about their knowledge on the level of effectiveness of various methods in the prevention of HIV transmission.

Another approach to collecting information about sex education/information is to identify the source of the respondent's information. In the NSAM respondents were asked if they ever talked with either parents about sexual health topics (such as the

methods of birth control and AIDS). In addition, respondents were asked about the adequacy of the amount of information on sex that was given to the average young person. The NSAM 1994 follow-up (NSAM-3) probed respondents to ascertain if they had received information about AIDS, STDs, and contraception from a range of sources ranging from television to Health department brochures.

There is a paucity of survey data from teachers or administrators on the extent of teaching of sexual education in the schools, and the content, by grade level. The last large-scale survey of teachers on the topic of sex education was conducted in 1987 (Forrest and Silverman, 1989). Given the rise in awareness about HIV and the changes in the sex education curriculums during this period, another study is due.

Measurement of Reproductive Health Services

There are several problems related to collecting information about reproductive health services for men. First, despite the long existence of male reproductive health services, a consensus on what constitutes these services has only recently started to emerge (Green, Cohen and Belhadj-El Ghouayel, 1995). In the United States, Title X guidelines that detail reproductive health services for women have been in existence for some time, but only in the last year has work begun to develop such guidelines for men.

Second, the level of men's use of reproductive health services compared to women's is considerably lower. In some cases, when the traditional methods of asking female survey respondents about their use of reproductive health services in the last 12 months is applied to a survey of males, the results are likely to yield small proportions of men receiving services over this short time period.

Administrative Records

There is a limited amount of administrative data available about health behavior and men. Title X grantees are required by the Office of Population Affairs, to submit annual service data tabulating the number of family planning visits. Three tables stratified by sex are available for 1995 visits, these include: age by race, age by Hispanic/Latino origin and service delivered (STD tests excluding HIV and HIV tests). The data indicate that out of 4.5 million Title X visits in 1995, only 94 thousand or 2 percent are by men (Manzella and Frost, 1997). There are currently no plans to change the information collected about men.

Surveys

There are few national surveys that provide estimates on the total number of men receiving reproductive health services by a large range of services categories. Among 21-26 year olds, the NSAM-3 measured if respondents had received the following services during the past 12 months: a physical exam, STD testing, counseling to prevent

pregnancies and counseling to prevent STDs and AIDS. A separate item measured if respondents discussed contraception, pregnancy, STDs or AIDS in the past 12 months with a doctor or nurse. A drawback to the using only a 12 month recall period is that no information can be obtained on the number of respondents who ever received medical services related to reproductive health.

Most surveys that include men and measure reproductive health services focus on only a few categories of reproductive health services rather than the range of sexual health services. For instance, the NHSLS concentrates on sexual dysfunction and STD incidence and treatment; there are few questions about counseling and other services to prevent STDs and unintended pregnancy. The NHSLS sexual dysfunction section measures if respondents experienced 8 categories dysfunction in the past 12 months, and if they sought help by type of provider.

The NHSLS STD incidence and treatment measures are relatively detailed. For 11 types of STDs, the survey measures: ever been diagnosed in lifetime, frequency of diagnoses, diagnosis in last 12 months, place of treatment and partner that infected respondent. The survey also measures if the respondent: ever wondered if they were infected with an STD; ever visited an STD clinic (and the main reason for going to the clinic) and ever experienced STD related symptoms in the last 12 months. The utility of the detailed STD data, particularly when only males and STDs in the last 12 months are analyzed, is limited by the sample size of the NHSLS (3,432 men and women).

The National Survey of Men (NSM) provides data on: ever had an STD, how many times, the month and year, the length of episode, visits to a doctor or clinic for treatment, any return for treatment, and ways in which the respondent altered his sexual behavior after he contracted an STD.

The questionnaire from the National Survey of Family Growth Cycle V (NSFG), serves as a useful model for beginning to design survey questions to measure the range of male reproductive health services and the distribution of these services across the male reproductive life cycle. Of course, the NSFG questions would need to be modified to address services particular to males, such as testicular cancer and prostate screening and treatment. The dimensions of health services the NSFG measures are: 1) the type of service received (such as sterilizing operation, HIV test, testing and treatment for other STD, a method or prescription for method, a check-up or test related to birth control, counseling about birth control and sterilization, abortion); 2) the period when the service was obtained (in the last 12 months from interview and the first visit for respondents under 25); 3) the type of provider; 4) the type of facility; 5) the method of payment; 6) the century month of 1st clinic visit after first menstrual period.

Proxy reports by women about their partners are a common method of collecting information. The NSFG itself could be expanded to measure which of the respondent's

partners **ever** accompanied her on a reproductive health visit (including prenatal, delivery and postnatal care visits).

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APPENDIX I

**INDICATORS OF MALE FERTILITY, FAMILY FORMATION,
AND SEXUAL BEHAVIOR**

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Introduction

In the past, most of the focus of fertility-related research, as well as research into the well-being of children, has focused on the mother-child dyad. Little attention has been paid to the role of males in conceiving and raising children, including their intentions and attitudes about becoming fathers, their relationships with the mothers of their children, and their relationships with their children, or the absence of such relationships. To date, we have no institutionalized mechanism for collecting data on male fertility and sexual behavior. Yet, having indicator data to describe patterns and monitor trends among males would be useful for both policy and research purposes; such data is necessary to show which indicators affect outcomes of importance to both groups.

The goal of this paper is to outline the types of indicators of male fertility and fatherhood that would ultimately be informative for researchers and policy makers in the area of child well-being. To better understand male fertility, indicators must inform us about how men behave as sexual beings. To better understand fatherhood, we need to develop indicators that describe how men act think about having children and their responsibilities for their children.

We define an indicator as a measure of a behavior or attitude that traces status or well-being across population groups over time, across groups, and/or across geographic areas. Indicators are descriptive and are not intended to be explanatory. Indicators of male fertility should meet several criteria (see Moore, 1995, for a discussion). They should:

1. assess male fertility and fatherhood across a broad array of outcomes, behaviors and processes;
2. have very high coverage of the population or event being monitored and data collection procedures should be rigorous and consistent over time;
3. cover both teenage and adult males;
4. have consistent meaning across socioeconomic and cultural subpopulations;
5. anticipate future trends and social developments, and provide baseline data for subsequent trends;
6. be geographically detailed, at the national, state and local levels;
7. be comparable in meaning over time; and
8. allow the tracking of progress in meeting societal goals regarding male fertility, fatherhood, and family formation

Data for indicators on sexual behavior and fertility often come from household surveys. However, administrative data represent another crucial source. For example, data on births come from the vital statistics system.

In order to lend some useful structure to this enterprise, we are dividing indicators into two groups. The first group consists of indicators that measure behaviors that are related to male fertility and family formation. The second group is comprised of indicators that describe attitudes towards various aspects of male fertility and family formation. This is a somewhat artificial division, but one that is hopefully useful to make in terms of thinking about what indicators are important to the understanding sought.

To organize this discussion, we have categorized indicators of both behavior and attitudes into four broad and overlapping areas. They are:

1. sexual behavior,
2. contraception,
3. pregnancy and pregnancy resolution,
4. marriage and cohabitation, and
5. fatherhood (attitudes only).

The sexual behavior category includes sexual history, partner characteristics and non-voluntary sex. The contraception category addresses frequency of use, types of contraception and the circumstances in which different types of contraception are used. Much of the focus of the indicators in the pregnancy and pregnancy resolution category is on unintended and mistimed pregnancies (there may be a lack of agreement between partners on this issue) and the roles and responsibilities of males when such a pregnancy occurs. Desirable indicators of marital and cohabitation histories and attitudes towards both arrangements under different situations are discussed in the next category. Last, indicators of the roles of fathers in their children's lives and attitudes towards these roles, under a variety of living arrangements, are addressed in the children/fatherhood category.

Because resources are finite, not all of these indicators can, or perhaps should, be produced. At this time, we have chosen to not prematurely eliminate any indicators, but rather to present a broad list of indicators for discussion. Table A summarizes a more limited set, however, as it includes those indicators identified as high or medium in priority during a subgroup meeting.

Indicators of Behavior

Several general issues must be kept in mind when devising and testing potential indicators of sexual, fertility and family formation behavior. These are personal topics and different words and phrases connote different ideas and attitudes and affect how respondents answer questions, which in turn affect understanding on the part of the respondent, their willingness to answer truthfully, and their ability to answer accurately. Therefore, careful wording of questions is essential.

Second, because many of the questions that might be asked about male fertility as well as fatherhood are sensitive in nature, surveys must be sensitive not only to wording but

to mode of administration. To address this concern, the issue of whether and when self-administered questions should be used as opposed to interviewer-administered questions must be resolved for varied topics and survey populations.

Third, the time periods covered in questions must be appropriate. When asking about a particular behavior, the length of time covered and the recency of the time period must both be considered when writing questions that will elucidate information that is both accurate and useful.

Table A. Indicators of Male Fertility, Family Formation and Sexual Behavior	
Sexual Behavior	
Behaviors	Attitudes
<i>High Priority Indicators</i> age at first intercourse number of partners in past year number of times had sex in past year characteristics of current partner victim of sexual molestation perpetrator of forced/coerced sex seriousness of relationships <i>Medium Priority Indicators</i> number of lifetime partners characteristics of previous partners <i>Low Priority Indicators</i> timing and content of sex education dating history	<i>High Priority Indicators</i> best age to have first sex when sex is acceptable or allowable allowable levels of persuasion/coercion
Contraception	
Behaviors	Attitudes
<i>High Priority Indicators</i> contraception used at first sex - by male - by female contraception used at last sex - by male - by female <i>Medium Priority Indicators</i> contraception during specific time periods negotiation about contraception	<i>High Priority Indicators</i> male-based methods <i>Medium Priority Indicators</i> female-based methods male's responsibility for preventing pregnancy female's responsibility for preventing pregnancy

Pregnancy and Pregnancy Resolution	
Behaviors	Attitudes
<p><i>High Priority Indicators</i> number of pregnancies timing of pregnancies resolution of each pregnancy</p> <p><i>Medium Priority Indicators</i> male's role in pregnancy resolution male's level of agreement with resolution number of partners male has children with</p>	<p><i>High Priority Indicators</i> abortion</p> <p><i>Medium Priority Indicators</i> pregnancy intendedness circumstances under which pregnancy is desirable</p> <p><i>Low Priority Indicators</i> factors that should affect pregnancy resolution role male should play in pregnancy resolution adoption</p>
Marriage, Cohabitation and Non-cohabiting Sexual Relationships	
Behaviors	Attitudes
<p><i>High Priority Indicators</i> number of marriages current marital status ever married before age at first marriage characteristics of current spouse current marriage preceded by cohabitation current marriage followed conception current marriage followed birth</p> <p>number of cohabitations currently cohabiting age at first cohabitation characteristics of current partner current cohabitation followed conception current cohabitation followed birth</p> <p>number of non-cohabiting relationships currently in non-cohabiting relationship age at first non-cohabiting relationship characteristics of current partner conception within non-cohabiting relationship birth within non-cohabiting relationship</p> <p><i>Medium Priority Indicators</i> duration of each marriage</p>	<p><i>High Priority Indicators</i> best age to marry ideal circumstances to marry acceptable circumstances to marry cohabitation</p>
Fatherhood	
	Attitudes
	<p><i>High Priority Indicators</i> importance of becoming a parent value of children consider having a child while unmarried best age to become a father father's responsibility mother's responsibility child support</p>

A fourth issue is question continuity. Although continuity over time is crucial, so is the need to develop new and better measures. This need must be weighed against the need to repeatedly ask exactly the same questions over time. This issue also arises with administrative data, where improvements in data collection are desirable and yet at the same time undermine our capacity to track trends.

An additional issue that must be addressed is how often to collect data on men. Every five years would not result in data that would be as timely as would be desired, while annual data collections are not feasible for financial and other reasons. While collecting data every two years may also not be financially feasible, it would be useful to have data at two-year intervals. Failing that, collecting indicator data three years may be both economically feasible and often enough to track trends on a timely basis.

A sixth issue is that of the statistical significance of data that are collected. A primary goal of gathering indicator data is to track trends over time. Therefore, it is important to be aware of the margin of error. When this margin is too large, it is not possible to confidently determine the direction or slope of the time trend of a particular indicator. This issue is pertinent to all survey data, not just that collected on males.

Seventh, there is the issue of informant. Since fertility surveys are already conducted among women, one potential source for some of these data is women. However, the fact that males report more sexual partners than do women (Smith, 1991; Laumann, et al., 1994) indicates that such data may be problematic. Although information on sensitive behaviors and on attitudes will have to come from men themselves, it is worth exploring the possibility that some demographic data on men might be obtained from women. Nevertheless, since some information must be obtained directly from men, the methodological challenges that surround getting representative samples of males must be addressed. Another potential source of some data on males is vital records data. Only minimal information is collected about the father, and reporting is low. For example, the age of the father is not provided in a substantial minority of cases. Also, four states do not ascertain the marital status of the child's parents, and no states obtain the cohabitation status of unmarried parents, as is done in Puerto Rico. In addition, similar questions could be added to the CPS, although the lack of continuity in the fertility supplements of the CPS is a cause of concern. To obtain the greatest benefit from CPS data, a regular schedule of data collection is needed.

Finally, the representativeness of survey data for males must be considered. Most previous surveys are household-based, but this may not be the best way to construct a representative sample of males, as men are generally more transitory than females and their living arrangements tend to be more unstable. For example, a population that is almost universally ignored in fertility-related surveys of women is individuals who are in the military or who are incarcerated. While this may not pose significant issues of representativeness when surveying females, given that most persons in these two populations are male. However, both the military and prisons have high percentages of

minority men, unmarried men, and men from lower socioeconomic backgrounds, and it is critical to include these groups in surveys of males.

Age may be another issue affecting representativeness. Most sexual behavior and fertility surveys of females focus on the 15 to 44 year old age group, since this represents the average reproductive lifespan of women. Therefore, for reasons of comparability, it makes sense to target this age group for men as well, although men older than 44 years are fertile. Under certain circumstances, it may make sense to target a core age group of men, ages 18-34. One reason for this would be limited financial and other resources. Another reason may be the desire to focus on lifetime behavior; in this case, limiting questions to younger individuals might limit recall bias. On the other hand, older men may be partners of younger women, so that a limited age range fails to include important groups of men.

Clearly, a number of substantive and methodological issues need to be considered as efforts move forward to enhance our understanding of male sexual and fertility behavior.

1. Sexual Behavior

Sexual behavior is a rather broad topic; in an effort to make it less unwieldy, the discussion of sexual behavior indicators will be approached using a sexual history framework. Included in this framework are age at first intercourse, number and characteristics of partners, marital and cohabitation histories, contraceptive use, non-voluntary sex, and sexual activity in the past year, including most recent incidence of sexual intercourse.

Indicators of sexual history should begin with age at first sex. Number of partners during the last year is a high priority measure; of slightly lesser importance is number of lifetime partners. Indicators that measure the seriousness or longevity of sexual relationships with different partners would also be informative. Lower priority indicators of males' younger years would include dating history and the timing and content of sex education.

Also along these lines, indicators are needed that describe males' sexual partners, including ages of partners, their race and ethnicity, marital status, relationship to the partner, previous sexual experience (including number of births), and such socioeconomic characteristics as education, employment status, income, country of birth and duration of residence in the U.S., religion and religiosity. This information is particularly important for males' current partners, and slightly less important for previous partners. Furthermore, it is likely that information about current partners would be more reliable than when respondents are asked to recall past partners. Currently, the 1995 NSFG contains information on most of these characteristics for the male partners of female respondents. Information of this sort in conjunction with indicators of various sexual behaviors and contraceptive use would almost surely prove illuminating in the

effort to more fully understand male fertility. (A caveat must be kept in mind however. The data gathered about males through surveys of females may not be representative of the male population, but rather of the partners of a representative group of females. On the other hand, females may report on male partners who are unlikely to be captured in surveys of males, either because they are in prison, in the military, or have no fixed address.)

The issue of sexual orientation or gender of sexual partners is also pertinent. While men who only have sex with men are, for all intents and purposes, not relevant to the goal of gathering information about male fertility and family formation, men who have sex with both men and women may put their female partners at higher risk for exposure to HIV (and therefore expose children of these couples to HIV) than men who have sex exclusively with women. Similarly, ascertaining the types of sexual behaviors in which men engage may be important to know because different sexual acts carry different risks. Only vaginal intercourse carries a risk of conception, while anal intercourse is associated with higher risk of transmission of HIV from male to female. Other forms of sexual activity are of interest only insofar as they are related to fecundity.

Indicators of forced sex and sexual molestation may be approached from two directions. First, while girls and women are more likely to be the victims of rape and molestation, the incidence among boys is high enough, and the possible consequences serious enough, to warrant careful measurement. Thus, youths and adults should be asked if they ever experienced any type of sexual molestation, at what ages these events occurred, how often they occurred and who molested them. Second, males should be asked whether they have ever forced or pressured a woman to have sex against her will. This area is complex as another person's will may be difficult to perceive. Moreover, any act that could be construed as a crime is inevitably going to be under-reported. However, it is important to start gathering this type of information as women report that less than voluntary sex is a relatively common occurrence (Abma, Driscoll and Moore, 1998). In so far as sexual and power relationships between men and women are related to male fertility and the consequences of this fertility, the topic deserves to be explored in more detail. Gathering information on this topic from men will be particularly challenging as little is known about how to achieve good response rates and how to get valid, interpretable data. An area of sexual behavior which may overlap a great deal with the issue of forced sex is that of the use and abuse of alcohol and other drugs in conjunction with sex.

Substance use is related to the lowering of inhibitions and the impairment of judgment. Therefore, alcohol and drugs are probably often associated with individuals engaging in sex under circumstances that they would normally not have, had they not been inebriated or high. Such circumstances could include having sex with someone they do not know, not using contraception, or putting themselves or their partner in a potentially physically threatening situation. Individuals who combine substance use with sexual activity may be putting themselves at greater risk of negative outcomes, including

an unintended pregnancy, an STD, or being guilty of, or a victim of, an unwanted sexual encounter. Indicators of whether respondents have been under the influence of alcohol and/or drugs while engaging in sex ever or in the past year would potentially contribute to explaining sexual behavior that seems irrational or against the best interests of respondents.

While it is important to collect sexual history data, sexual behavior indicators should generally focus on sexual activity in the past year because the recency of events should lead to more accurate reporting by respondents. In addition, it provides a more comparable duration of exposure. These considerations apply to all areas of sexual activity, including the number of times respondents had sex, the number and characteristics of partners, and the circumstances under which sex took place. Indicators that describe respondents' most recent sexual experience may be representative of their general sexual experience and behavior and it may be easier for respondents and result in more accurate reporting to focus on the most recent incident. In addition, it provides a common unit of exposure, compared to the past year, a time when exposure may vary substantially across persons.

2. Contraception

Contraceptive use is, of course, intimately intertwined with sexual history. While it is routine now to ask females if and what kinds of contraceptives they use, there is less data on males. Nevertheless, it is considered a high priority to start gathering contraception information from men. While in one sense, contraception indicators gathered from male respondents would focus on male forms of contraception -- condoms, male sterilization and withdrawal, males can also be asked what forms of contraception their partners used. Male reports, however, would potentially be compromised by lack of knowledge on the part of males of the type of contraceptive their partners used, as well as whether they indeed did use any contraception. Methodological work might examine the level and accuracy of knowledge that males display on this topic.

Indicators of contraceptive use should contain information on the type(s) of contraceptives used by the male and/or his partner at first sex and at most recent intercourse. A lower priority indicator would measure types of contraception used during specific time periods of males' lives, such as adolescence and young adulthood, to explore age and cohort patterns for this indicator. Although data can be compared to surveys of women, it must be acknowledged that the quality of these data would be questionable because large proportions of men, particularly unmarried men, do not have complete knowledge of the birth control methods used by their partners.

Another aspect of contraceptive use that would be of secondary importance is how males report both the level and type of discussion and negotiation about birth control they engage in with their sexual partners, and whether males know if their partners used any birth control. In this case, the size of "don't know" category would be as informative to

researchers as the reports regarding methods. Indicators that measure types of partners and relationships could be tabulated in conjunction with data on discussion and negotiation about contraception to further our understanding of under what circumstances discussion and negotiation around this subject takes place and the outcomes of these actions. Before good quality data can be gathered on this topic, methodological work, including qualitative studies such as focus groups that include both males and couples, must be conducted in order to figure out how to ask about these topics. Finally, data on payment for contraception might illuminate our understanding of the male role in fertility in different types of relationships, though, again, it would be of secondary priority.

3. Pregnancy and Pregnancy Resolution

Among pregnancies leading to births, the number and timing of pregnancies is a reliable and standard measure of female fertility. However, data on abortions continue to be poor. For example, information on pregnancies leading to births and births from the 1995 NSFG is good, but data on abortions cannot be used for indicators. This problem promises to be even larger for males. Administrative data, such as vital statistics information, while useful for many purposes, tell us nothing about males and abortion.

Although data from males on the number, timing and resolution of the pregnancies they are responsible for are crucial for an understanding of male fertility and sexual behavior, there is a dearth of understanding of how to obtain accurate and complete information about pregnancy and pregnancy resolution from men. This is an area in which methodological work on how to improve reporting is very much needed. Under some circumstances, men may not know that they are responsible for a pregnancy and are therefore unable to report it. Even when confidentiality is guaranteed, an additional source of under-reporting may be men's unwillingness to report a known pregnancy. Nevertheless, even given this limitation, such questions should be asked of men to ascertain, at the very least, their known fertility.

Each conception has four possible outcomes and, although not as crucial as accurate information on number, timing and resolution of pregnancies, it would be helpful to have data about how men influence the resolution of a pregnancy. A pregnancy can end in a miscarriage; it can be terminated through abortion; it can result in a live birth, or in a stillbirth. Furthermore, when the result is a live birth, the mother may either keep the baby or give it up for adoption. Although miscarriage and stillbirth are not the result of conscious decisions, abortion and whether a baby is kept by the parents or put up for adoption are conscious decisions. With each reported pregnancy, indicators that describe the resolution of the pregnancy and the male's role in that resolution are would be needed. Males' input into the decision about how a pregnancy was resolved should be measured, as should their level of agreement with the outcome, possibly using a scale measure. It is also useful to know the number of partners by whom males have children as this has repercussions for the resulting offspring.

4. Marriage, Cohabitation and Non-cohabiting Sexual Relationships

On-going sexual relationships between men and women can take several forms. Couples may be legally married, they may cohabit but not be legally married, or they may have a sexual relationship but each partner maintains a separate residence. Marital, cohabitation and non-cohabitation relationship histories should be collected from males. Marital histories should include data on number and duration of marriages, age at first marriage, whether the current marriage was preceded by cohabitation with the respondent's spouse, and whether a marriage followed a conception or birth. The demographic and socioeconomic characteristics of current spouses should be gathered from male respondents. Similarly, cohabitation histories should include information on number, duration and timing of cohabitations, whether conceptions or births occurred prior to, or during cohabitation, and whether cohabitation with a partner led to marriage. It is also important to know the socioeconomic characteristics of males' current cohabiting partners. Parallel information should also be gathered on non-cohabiting sexual relationships.

Marriage is a sensitive topic for males because of the issues of child support and alimony. The current state of knowledge on whether reliable marital and cohabitation histories can be collected from men leaves much to be desired; the limits of what males can and will report are not known.

Indicators of Attitudes

The connection between attitudes and behaviors is not clear-cut. There is debate among social scientists about whether attitudes influence behavior, and if they do, in what way. While global attitudes may not influence specific behaviors, more narrow and personally-focused attitudes do predict behavior. Moreover, there have been tremendous changes in attitudes about marriage, fertility and fatherhood (Thornton, 1995), which have tracked closely with behavior, making it advisable to gather information on males' attitudes and opinions towards the topics related to male fertility.

As with the behavioral indicators outlined above, the creation and use of attitudinal indicators require that several issues be addressed. As noted for questions about behaviors, the context of questions that ask about attitudes is crucial. Context includes the wording of questions, the order of questions within a survey, and whether the questions are self-administered or interview-administered. Self-administered surveys are more likely to elicit respondent's true attitudes than interviewer-administered surveys, particularly on sensitive topics. In addition, self-administered questionnaires can also be less expensive. The second issue that should be dealt with is whether the attitudes measured are personal or general attitudes. For example, should questions about abortion or cohabitation query how respondents' attitudes would shape their own behavior on such issues or tap their beliefs about what is right for society in general? A third issue concerns the strength or depth of respondents' feelings about a particular issue. While

respondents may produce an answer to an attitudinal question when prompted via an interview or questionnaire, the topic may or may not be salient in respondents' lives and these attitudes may be strongly or loosely held.

1. Sexual Behavior

Males' attitudes towards sexual behavior are potentially important in understanding that behavior. Although not entirely easy to gather, collecting indicator data which tap males' opinions on under what circumstances sexual activity is acceptable or allowable should be a priority. These circumstances might include the marital statuses of both partners, the relationship between partners, and partner characteristics, including age. Included in this area could be a measure of what age is considered the best age to first have sexual intercourse. Attitudes towards non-voluntary sex and allowable levels of coercion or persuasion are equally important; however, it is again likely that this information will be difficult to gather. It would be useful, whenever appropriate, to ask parallel questions of males and females so that attitudinal trends of the sexes can be compared over time.

2. Contraception

The measurement of males' attitudes towards contraception can generally be considered of medium priority. When collected, indicators should cover two overlapping areas. The first area is males' opinions of their responsibility for preventing pregnancy; indicators should capture attitudes about both males' and females' roles. Attitudes about use of methods and about who pays for birth control (particularly among unmarried couples) also ought to be measured. The second area is males' attitudes towards specific contraceptive methods. While particular attention should be given to examining attitudes towards male-based methods -- condoms, male sterilization and withdrawal -- males' feelings about female-based methods also ought to be measured.

3. Pregnancy and Pregnancy Resolution

Accurate measures of male attitudes about when, and under what circumstances, pregnancy is desirable may be helpful in increasing our understanding of fertility. Along these lines, males' attitudes about pregnancy intendedness and towards the resolution of unintended or unwanted pregnancies should be measured, including attitudes about acceptable reasons for terminating a pregnancy. Attitudes on whether males should have a say in pregnancy resolution and what their responsibilities should be after that decision has been made may also be informative. Similarly, males' attitudes towards adoption as an option should be measured, including in which situations adoption is preferable to keeping a child and fathers' rights and responsibilities related to such a decision.

4. Marriage and Cohabitation

The measurement of men's attitudes towards marriage should assess males' opinions about the ideal and acceptable circumstances under which people should marry, including the ages and economic situations of their partners. Attitudes towards cohabitation should also be measured, including whether cohabitation before marriage is preferable and acceptable or possibly whether partners with children should cohabit or marry. Attitudes about marriage after conception and after childbirth may affect or reflect signal social changes in pregnancy resolution behavior.

5. Fatherhood

Finally, males' attitudes towards children may affect sexual and fertility behavior. Indicators might include basic opinions such as the ideal number of children and the best age to become a father. In addition, opinions about what constitutes a father's responsibility to his children are important. Comparable questions about the scope and depth of mothers' responsibilities towards their children would be important to advancing how males approach decisions about fertility and marriage. Regarding child support, informative measures may include attitudes towards when child support should be obligatory, different levels of support, whether a father's marital status at the time of a child's birth influences attitudes towards child support, and how child support is related to other forms of paternal support and contact.

Population Sub-groups

It is often informative to divide a population of interest into subgroups and make comparisons across these groups on a variety of indicators or factors. In developing indicators of male fertility and fatherhood, several ways of categorizing males promise to aid our understanding of the entire population. These categorizations include:

1. age,
2. marital status,
3. race/ethnicity,
4. education,
5. income,
6. employment status,
7. parity, and
8. number of children in the household.

Men in each of these groupings are expected to behave differently in the areas of male fertility and fatherhood and to hold different attitudes towards these topics. For example, adolescents are predicted to have caused fewer pregnancies and have fewer children than older men. It is also likely that younger men and single men will have different attitudes towards acceptable sexual behavior and marriage than older men and married men. It is also probably safe to predict that many measures of fertility-related behaviors and attitudes will vary across the different socioeconomic categories listed

above. However, it will also be informative to determine which indicators do not vary by age, marital status, race/ethnicity, SES, or fatherhood status.

Existing Sources of Indicator Data

A number of these indicators have been included in past surveys that either focused on males or included males and females. For example, the General Social Survey (GSS) interviews adults, both men and women, on their attitudes towards abortion, cohabitation, and the ideal number of children. The GSS also contains questions on number of sex partners during various time periods, the gender of those partners and whether they were steady or non-steady partners. Both the National Survey of Families and Households (NSFH) and the National Longitudinal Survey of Youth (NLSY) include items on fertility such as the timing and number of births, and whether any births were unwanted or unintended. Both also contain items from which marriage and cohabitation histories can be constructed. The National Survey of Adolescent Males (NSAM) includes both general and partner-specific sexual and contraceptive histories, pregnancy histories and some information about fatherhood, as well as measures of attitudes towards contraceptive responsibility, sex, cohabitation, abortion, children and gender role identity for a sample of young males. Although the NSFG is a survey of women, it can be used as a proxy source of information on male demographic characteristics and wantedness of pregnancies by males.

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APPENDIX J

CONSTRUCTS USED ON DATA COLLECTION

Table 1. How is Father Involvement Assessed In Large Data Sets: Summary of Father Involvement Categories by Data Set.

Data Set	NLSY	PSID	MILC	NSF H	NCS	BAL T	NHS CH	PSYP	HSB	NELS	NFVS	SCCS	SPC	ADD H
Involvement Measures														
<i>Positive Involvement:</i>														
Presence/Absence	X	X	X	X	X	X	X	-	X	X	X	X	X	X
Communication	X	X	X	X	-	-	-	X	-	-	-	X	-	X
Teaching	-	X	X	X	X	-	-	-	X	X	X	X	X	X
Monitoring	-	X	X	X	X	-	-	-	X	X	-	X	X	X
Thought Processes	-	X	-	X	-	-	-	-	-	-	-	-	-	-
Errands	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caregiving	-	X	-	X	X	X	-	-	-	-	-	X	-	-
Child Maint.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shared Interests	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Availability	X	X	-	X	X	X	X	-	-	-	-	X	X	X
Planning	-	X	-	-	-	-	-	-	-	-	-	-	-	-
Shared Act.	X	X	-	X	-	X	-	-	-	-	-	-	X	X
Providing	-	X	-	X	-	X	-	-	-	-	-	-	-	X
Affection	-	X	X	X	X	X	-	X	-	X	-	X	X	X
Protection	-	X	-	-	-	-	-	-	-	-	-	-	-	-
Emotional Supp.	-	X	-	X	X	X	-	-	-	-	-	-	X	X
Other Family Process	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Negative Involvement:</i>														
Conflict	-	X	X	X	X	-	-	-	-	-	X	-	-	X
Harsh Punishment	-	X	-	X	X	-	-	-	-	-	X	-	-	-
Abuse	-	-	-	-	-	-	-	-	-	-	X	-	-	-
Non-payment	-	-	-	-	-	-	-	-	-	-	-	X	-	-

NLSY=National Longitudinal Survey of Youth; PSID=Panel Study of Income Dynamics, child Supplement (1997); MILC=Marital Instability Over the Life Course; NSFH=National Survey of Families and Households; NCS =National Survey of Children; BALT=Baltimore Study of Unplanned Teen Parenthood; NHSCH=National Health Interview Survey of Child Health; PSYP=Wisconsin Study of Premarital Sexuality Among Young People; HSB=High School and Beyond; NELS=National Education Longitudinal Study; NFVS=National Family Violence Study; SCCS=Stanford Child Custody Study; SPC=Survey of Parents and Children; ADDH=Add Health Survey

Table 2. National Longitudinal Study of Youth, 1979-1993

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Live in household with father/step-father Distance father lives from mother Father alive Year by year history (birth - age 18) of living with biological father/adoptive father
Communication	Talk about sex
Teaching	
Monitoring	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	Number of times father visits child; length of visits Child see father(-figure) daily (children under 5 years) Child see and spend time with father (-figure); how often (children 6 years and older)
Planning	
Shared Activities	How often with father(-figure) outdoors (children 6 years and older)
Providing	
Affection	
Protection	
Supporting Emotionally	

Involvement Measures***Description***

Positive Involvement:

Negative Involvement:

Conflict

Harsh Punishment

Abuse

Non-Payment

Miscellaneous

General Comments

Cohort of youth 14 to 21 years old in 1979

Table 3. Father Involvement, Child Development Supplement , PSID

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Biological father still living; how far away does he live
Communication	In past 12 months, how often child talk on telephone or receive a letter from father not in household How often discuss with child: school activities; things child studies; child's experiences
Teaching	How much schooling father hope child will complete; how much expect child will complete In past week, how many time have you: grounded child; taken away TV or other privileges; taken away allowance; sent child to room Agreement with attitudes about mother's/father's role in child rearing (e.g. essential that father spend time interacting and playing with children, mothers are naturally more sensitive caregivers than fathers are) When did respondent take parenting classes Degree of conflict between parents on child related issues (how child raised; spending money on children; time spent with children) Question asking how involved the respondent's biological or adoptive father was in raising you: have another father figure; how much influence your father's involvement had on you in raising your children Agreement with attitudes on 21 items regarding husband's/wive's role in family (e.g. impacts on children if mothers work, daycare for children) Parent rating of most important things child needs to learn to prepare child for life

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Monitoring	<p>10 items related to hypothetical situation regarding child bringing home report card with grades/progress less than parent expected--what is likelihood parent would e.g., contact teacher or principal; talk with child; spend more time helping child</p> <p>Are there many rules; are they strictly enforced</p> <p>Set of nine questions with the following form: How often do you (set limits on child's time watching TV; set limits on what is watched; limit snacks; discuss rules with children)</p> <p>How often know who child is with when child not home</p> <p>How many of child's close friends do you know by sight and by first and last name</p>
Thought Processes	<p>Set of 9 statements about how parent feels raising children (e.g., being parent harder than thought; feel trapped my responsibility as parent; would do better in life without my child)</p>
Errands	
Caregiving	<p>Set of 9 questions regarding which parent(s) actually does the child-related tasks (e.g., bathing child, buying clothes, selecting a pediatrician)</p>
Child-Related Maintenance	
Shared Interests	
Availability	<p>In past 12 months, how often child see father; when last see father; how many day stay with father</p> <p>In past year has father outside household taken child on vacation</p> <p>In 1995, how many days child spend with you (father outside of household)</p> <p>Participation in school activities (11 items), e.g. conference with teacher observed child's classroom, attend PTA-type meetings</p>

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Planning	<p>Agreement with 4 statements about rearing/educating children (e.g. parent should not question teacher's methods)</p> <p>4 items regarding participation in child's schooling/program enrollment (e.g., obtain information about teacher, meet with teacher)</p> <p>Set of 9 questions regarding which parent is responsible for planning the child-related task (e.g., bathing child, buying clothes, selecting a pediatrician)</p>
Shared Activities	<p>How often read to child; take child to grocery; talk to child when busy</p> <p>How often done the following (13 items) with child (e.g., wash or folded clothes, gone to store, worked or homework)</p> <p>How often in past month have you: spent time in one of child's favorite activities; joked or played with child; talked about something child interested in</p> <p>How often father outside household spend time with child in leisure activities; religious activities; talking, working on project, playing; school or other organized activities</p>
Providing	<p>Financial help from father outside household in buying clothes, toys, presents; paying camp or lessons; paying dental or insured medical expenses; paying child's medical insurance</p>
Affection	<p>In past week, how many times have you: praised child; shown physical attention (hug, kiss, stroke hair, etc.); told another adult something positive about child</p> <p>In past month, how often have you hugged or shown physical affection; told child you loved him/her; told child appreciated something he/she did</p> <p>Rate child's relationship with you</p>
Protection	<p>To primarily make life better for child, has respondent ever: moved to another neighborhood; increased work hours; decreased work hours</p>
Supporting Emotionally	<p>Father's influence in making decisions about things such as religion, education</p>

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
<i>Negative Involvement:</i>	
Conflict	How much trouble has child been to bring up Child does what parent tells her
Harsh Punishment	When child angry, if child hit you would you (e.g., hit back; give time out); if child said "I hate you", or swear would you (e.g. ground; spank, ignore) Attitude toward spanking if child seriously misbehaving At what age start spanking; how many time spank child in past week
Abuse	
Non-payment	
<i>Miscellaneous</i>	
General Comments	In 1997, with funding from the National Institute of Child Health and Human Development (NICHD), the PSID will collect information on 0- 12 year old children from the children and their parents. The PSID is conducted at the Survey Research Center, Institute for Social Research, University of Michigan. Different surveys used for primary caregiver (generally the mother), partner of the primary caregiver, and for fathers who live outside the target child's household. Most questions regarding father involvement repeated on all surveys.

Note: Table based on Questionnaires dated October, 1996.

Table 4. Marital Instability Over the Life Course, 1980-1988

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Relationship to respondent (male respondent's applicable) Children not living with respondent; distance lives from respondent
Communication	Number of days since spoke to child not living in household
Teaching	Able to handle children after divorce
Monitoring	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	
Planning	
Shared Activities	
Providing	
Affection	Variety of questions Wished did not live with children; can handle living apart from children Closeness to child from previous marriage; closeness of spouse's child from previous marriage Satisfaction with children Quality of relation with children Attitude toward children leaving home; attitude toward children returning home
Protection	
Supporting Emotionally	

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
<i>Negative Involvement:</i>	
Conflict	Child gives respondent problems; child from previous marriage gives respondent problems; child from spouses previous marriage gives respondent problems How much problem are stepchildren Any children give more than usual problems
Harsh Punishment	
Abuse	
Non-Payment	
<i>Miscellaneous</i>	
General Comments	Respondents: 821 males, 1212 females 3 waves

Table 5. National Survey of Families and Households, 1988

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Household composition information Distance father lives from child Father still living
Communication	In past year, how often child talk/get letter from father (not in household) Time with child having private talks
Teaching	How often respondent yells at child Allows child to set rules Expectations of children regarding spending money
Monitoring	5 questions about leaving child alone at various times (after school, overnight) Know where child is when away from home Restrict amount of TV; types of programs Remind child to do chores How important for child to follow family rules; to always do what respondent asks Time spent at PTA/other school activities
Thought Processes	Child easy/difficult to raise
Errands	
Caregiving	Number of hours per day take care of child
Child-Related Maintenance	
Shared Interests	
Availability	In past year, how often child see father Some questions on visitation agreement Questions about time spent: at religious youth groups; at team sports/youth athletic clubs; at community youth groups
Planning	
Shared Activities	Different questions for children in different age groups, including children over 18 years e.g., time spent with child on outing away from home; playing together at home; with reading or homework; eating breakfast with child; eating lunch with child
Providing	Help child (over 18 years) with: transportation; home/car repairs; housework

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Affection	How often respondent praises child How often respondent hugs/cuddles child Rate relationship with each child (very poor--excellent) How much influence respondent has on child Number of days had good time with child
Protection	
Supporting Emotionally	Help child (over 18 years) with advice/moral support
<i>Negative Involvement:</i>	
Conflict	How often argue or fight with child last month How handled disagreement: keep opinions to self; discuss calmly; shout; hit/throw things How many arguments led to: becoming physical; respondent or child hitting/shoving/throwing things; respondent or child getting cut/bruised/injured Series of 10 questions about how many times in last year respondent argued or disagreed with child on variety of items, e.g., with how she/he dresses; about her/his friends; about her/his sexual behavior
Harsh Punishment	How often respondent slaps/spanks child
Abuse	
Non-Payment	
<i>Miscellaneous</i>	Section of 8 questions about raising step-children (e.g. easier to love than own children; easier to discipline than own children)
General Comments	Both male and female respondents

Table 6. National Survey of Children

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Type of father (in household) Biological father dead or living elsewhere
Communication	
Teaching	When child good, dad: takes child out someplace; buys special things ^C When child bad, dad: makes fun of child; yells at child; acts if no love ^C When child bad: dad talks to child; sends to room; takes away privileges ^C Father is firm ^C
Monitoring	Who attends school conference Father gives clear and consistent rules ^C Father wants to know what child is doing ^C
Thought Processes	
Errands	
Caregiving	Questions asked to child about who makes decisions about child's: clothes; friends; how late child can stay out; amount TV child can watch; religious training; seeing homework is done; discipline Questions asked to parent about who makes decisions about child's clothes; how child spends money; friends; how late child can stay out; how much allowance child gets; how much TV child can watch; child's religious training
Child-Related Maintenance	
Shared Interests	
Availability	Father spend enough time with you (asked in all waves) ^C
Planning	
Shared Activities	
Providing	

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Affection	When child good: dad says he's pleased; kisses/hugs ^C Amount of affection from dad ^C How close feel to your father; to your stepfather ^C Rate father/youth relationship ^P Want to be like father as adult ^C Father loves child/ interested in child ^C
Protection	
Supporting Emotionally	Father trusts even when not around ^C Father encourages to do best ^C Father appreciates child's accomplishments ^C
<i>Negative Involvement:</i>	
Conflict	How much child argue with father ^C
Harsh Punishment	When child bad, dad spanks/slaps; ever hurt by dad spank/slap ^C
Abuse	
Non-Payment	
<i>Miscellaneous</i>	Asks a lot of same questions to child about father and about outside parent
General Comments	3 waves Parent respondent: 1366=mom/mom substitute, 57=dad/dad substitute

Note:

^P Parent responded to question

^C Child responded to question

Table 7. 1966-72 Baltimore Study of Unplanned Teen Parenthood

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Marital Status (all waves) Marry baby's father Why some/no chance to marry baby's father in future Does father of child currently live in household
Communication	
Teaching	
Monitoring	
Thought Processes	
Errands	
Caregiving	Is father satisfied/would change how raise child; respondent or father make important decisions about child
Child-Related Maintenance	
Shared Interests	
Availability	Baby's father visits baby Does father spend time with child; number of hours father (step) spent weekly; respondent feel father (step) spends enough time with child; why father finds difficult to spend enough time; children spend time with father in past year; frequency children/father spend time together
Planning	
Shared Activities	Frequency child plays with father
Providing	Does father pay for child expenses; how much; non-financial assistance from father of child
Affection	Father's enjoyment of child; child's enjoyment of father; how much does father enjoy play with child; how much does child enjoy play with father
Protection	
Supporting Emotionally	

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
<i>Negative Involvement:</i>	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	
<i>Miscellaneous</i>	Description of how child's father felt at pregnancy; number of children father wants
General Comments	Four waves of interviews with 404 women who were pregnant (and under age 18) at the time of the first interview in 1966 and registered at the Sinai Hospital prenatal clinic in Baltimore

Table 8. National Health Interview Survey on Child Health, 1988

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Type of family; identification of child's father figure in household; relationship of sample child to father figure in household Has child ever lived with biological dad for at least 4 months; month/year last lived with biological father; duration since child last lived with biological father
Communication	
Teaching	
Monitoring	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	When (how often) does child see father
Planning	
Shared Activities	
Providing	
Affection	
Protection	
Supporting Emotionally	
<i>Negative Involvement:</i>	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	

Involvement Measures

Description

Positive Involvement:

Miscellaneous

General Comments

Information collected for 17,110 children 0-17 years. Respondent was child's mother 80% of time (biological mother=12,946, biological father=1,516).

Table 9. 1973 Madison, Wisconsin Study of Premarital Sexuality Among Young People: Student and Non-student Samples

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	
Communication	How much your father understands you Following questions related to father's communication on sexual behavior/premarital sex: Evaluate sex education from your father; father feel acceptable--fondle breasts; father feel acceptable--fondle genitals; father feel acceptable--sexual intercourse; source moral attitude (sex); source knowledge sex physiology; source information about sex mechanics; contraceptive knowledge; how father feel if you live with someone unmarried; how father think if you are unwed and pregnant; how father think if you impregnated a girl
Teaching	
Monitoring	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	
Planning	
Shared Activities	
Providing	
Affection	How close are you to your father Influence father have on your decision How often father display affection toward you
Protection	
Supporting Emotionally	

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
<i>Negative Involvement:</i>	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	
<i>Miscellaneous</i>	
General Comments	Identical surveys administered to two samples: 1)unmarried undergraduate students aged 16 to 29 years--432 males and 431 females; 2)non-students aged 18-23 who resided in Madison, Wisconsin but who were not students at the university--220 males and 293 females

Table 10. High School and Beyond, 1980-1983

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Father or other male guardian in household
Communication	
Teaching	Father plans school program; father's opinion about plans after high school
Monitoring	Father monitors school work
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	
Planning	
Shared Activities	
Providing	
Affection	
Protection	
Supporting Emotionally	
<i>Negative Involvement:</i>	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	
<i>Miscellaneous</i>	
General Comments	Base survey and 3 follow-ups 2 cohorts: Sophomore, Senior

Table 11. National Education Longitudinal Study: 1988-1994

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Father, Stepfather, or other adult male in household
Communication	
Teaching	How far wants child to go in school; plan high school program; opinion about what to do after high school
Monitoring	Father home when child returns from school
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	
Planning	
Shared Activities	
Providing	
Affection	Get along with father
Protection	
Supporting Emotionally	
<i>Negative Involvement:</i>	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	
<i>Miscellaneous</i>	
General Comments	Base year through 3rd follow-up 8th grade cohort

Table 12. National Family Violence Study, 1975 and 1985

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Male head always present in relevant questions (respondent needs to be a male for questions to be applicable)
Communication	
Teaching	In past year, respondent ever (and number of times): discuss issue calmly with child; get information to back up side This same set of questions are then asked with respect to how child deals with respondent.
Monitoring	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	
Planning	
Shared Activities	
Providing	
Affection	
Protection	
Supporting Emotionally	
<i>Negative Involvement:</i>	
Conflict	19 questions about conflict resolution when disagreement occurred e.g. When disagreement, parent ever: discuss issue calmly; stomped out of room; beat up child This same set of questions are then asked with respect to how child deals with respondent
Harsh Punishment	In past year husband use physical punishment on child; number of times used Also asks if respondent's father used physical punishment; number of times used

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Abuse	In past year, respondent ever (and number of times) beat up child; kicked/bit/hit with fist; hit/tried to hit child with object; burned/scalded child; threatened child with knife/gun This same set of question asked with respect to how child deals with respondent.
Non-Payment	
<i>Miscellaneous</i>	
General Comments	Respondents include both males and females 1 referent child Similar survey in 1975 and 1985

Table 13. Stanford Child Custody Study, 1984-1990

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Child's residential custody (de facto)
Communication	Variety of questions regarding talking to father on phone How easy to chat with child
Teaching	How child acts when corrected; child comply when asked to do something Child easier to raise after divorce
Monitoring	Who supervises homework Keep track of where child is Regular times for bed/meals at dad's; consistent with demands of child
<i>Thought Processes</i>	
Errands	
Caregiving	Who is primary caretaker Who shops for children's everyday clothes; takes care of checkups
<i>Child-Related Maintenance</i>	
Shared Interests	
Availability	Many detailed questions e.g., Number of overnights with father (last week; unscheduled; usual in two week period); amount of time spent with father in summer; amount of time child wants to spend with father Questions related to the visitation schedule (when visitation occurs; father want to change schedule; child want to change schedule) Factors affecting time spent with children (4 in wave 1, 6 in wave 2, 8 in wave 3), e.g., new relationship; new residence; dad lives too far away; no regular visitation hours
Planning	
Shared Activities	
Providing	
Affection	Involvement (high--low) with child before separation; since separation; currently How is relationship with child Patience with child (easy--difficult)

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Protection	
Supporting Emotionally	
<i>Negative Involvement:</i>	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	Impact of dad's missed child payments on relationship
<i>Miscellaneous</i>	
General Comments	3 waves Study of post-separation child custody arrangements in sample of 1,124 families in two California counties Same question asked to mother and father

Table 14. 1990 Survey of Parents and Children

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Biological father not in household; still living ^C
Communication	
Teaching	How often wish parent more strict How much father (or male parent) makes you follow rules Parent answered series of 15 hypothetical questions (e.g., Amount of discipline if child: did not turn in homework; got drunk; used drugs)
Monitoring	Talk to teacher about school progress ^P Parent answered whether attended PTA meeting/special school meeting in past year
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	Time Spent with father not living in household ^P Time spent with biological father (past 5 years; past year); enough time with ^C Parent answered 4 questions, e.g., In past year worked with youth group/sports team/club
Planning	
Shared Activities	10 questions about a variety of activities, e.g., attend religious services together; play sports games together ^P How often father miss important events/activities; how often stepfather miss important events/activities ^P
Providing	

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Affection	All questions asked to child Relationship with respondent Father special adult in life/cares about you; stepfather/foster father special adult in life/cares about you Look up/admire/would like to be like father; look up/admire/would like to be like stepfather/foster father Think father let you down; think stepfather/foster father let you down
Protection	
Supporting Emotionally	Father/biological father respects ideas/opinions
<i>Negative Involvement:</i>	
Conflict	
Harsh Punishment	
Abuse	
Non-Payment	
<i>Miscellaneous</i>	3 questions asked to parent about involvement in child/parenting information group, e.g., attend class/talk about child rearing
General Comments	Respondents: 611 male, 1127 females Includes questions asked to parent and to child

Notes:

^P Question asked to parent

^C Question asked to child

Table 15. National Longitudinal Study of Adolescent Health, Wave 1

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Presence/Absence	Know anything about biological father; he still living; how old were you when he died; did you ever live with him; how old were you when you last lived with him; how many years had you been living with him at that point In what year did child most recently live with biological father Ever a period of at least 6 months when child did not live with respondent; what age was child
Communication	In last 12 months, how often talked to father (not in household) in person or on the telephone, or received a letter from him In past 4 weeks, have you done the following with your biological father/adoptive father/stepfather/foster father/ etc.: talked about someone you're dating, or a party you went to; had a talk about a personal problem you were having; talked about other things you're doing in school You are satisfied with the way your father and you communicate with each other Respondent just does not understand child It would embarrass child to talk to respondent about sex and birth control Respondent talked with child about having sex and: negative impact if he got someone/she got pregnant; the dangers of STDs; neg impact on social life; moral issues of not having sex How much respondent talk to child about birth control; about sex

Involvement Measures

Description

Positive Involvement:

Teaching

In past 4 weeks, have you done the following with your father biological father/adoptive father/stepfather/foster father/ etc.: gone to a religious service or church-related event; talked about your school work or grades
On a scale of 1 to 5, how disappointed would resident father be if you did not graduate from college; if you did not graduate from high school
In past week, has respondent and child talked about child's school work or grades; about other things child is doing in school
What is most important item that child could be following high school
How disappointed would respondent be if child did not graduate from college
Child and respondent make decisions about child's life together
Respondent doesn't know enough about sex and birth control to talk to child about them; it would be difficult for respondent to explain these things to child; don't need to talk about these things since child will get information elsewhere; talking about this subject would encourage child to have sex

Monitoring

How would your father feel about your having sex at this time in your life; about your having sexual intercourse with someone who was special to you and whom you knew well; about your using birth control at this time in your life
Respondent disapproves of child having sex at this time in child's life; would not mind child having sex with a steady friend; respondent recommended a specific method of birth control to child
Set of questions regarding child's best friend: has respondent met friend; know what school friend goes to; met this friend's parents; what kind of influence is friend
Similar set of questions regarding child's special friend (girlfriend/boyfriend)
How many parents of child's friends has respondent talked to in last 4 weeks
What time does child have to go to bed on week nights
Has respondent talked with any teacher about school work this school year

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
Thought Processes	
Errands	
Caregiving	
Child-Related Maintenance	
Shared Interests	
Availability	In last 12 months, how often have you stayed overnight with father (not in household) How often is resident father at home: when you leave for school; when you return from school; when you go to bed During school year, has respondent participated in school fund-raising or done volunteer for the school Child interferes with respondent's activities
Planning	
Shared Activities	In past 4 weeks, have you done the following with your biological father/adoptive father/stepfather/foster father/ etc.: gone shopping; played a sport; gone to a movie, play, museum, or concert, or sports events; worked on a project for school
Providing	In typical month, how much support does biological father pay for child
Affection	How close do you feel to your biological father/adoptive father/stepfather/foster father/ etc.; how much do you think he cares about you Most of the time, your father is warm and loving toward you Overall, you are satisfied with your relationship with your father How often do you get along well with child
Protection	
Supporting Emotionally	How often respondent feels can trust child

<i>Involvement Measures</i>	<i>Description</i>
<i>Positive Involvement:</i>	
<i>Negative Involvement:</i>	
Conflict	In past 4 weeks, have you had a serious argument about your behavior with your biological father/adoptive father/stepfather/foster father/ etc.
Harsh Punishment	
Abuse	
Non-Payment	
<i>Miscellaneous</i>	Section of questions about twins (type of twins; how alike were they at age 8; when twins young was respondent often confused about which was which; how often was father confused)
General Comments	Study was supported by grant from the National Institute of Child Health and Human Development Information in table based on Codebooks developed by Carolina Population Center, University of North Carolina at Chapel Hill, February 1997

APPENDIX K

NONRESIDENT FATHERS: WHAT WE KNOW AND WHAT'S LEFT TO LEARN?

by Elaine Sorensen
The Urban Institute

Support for this research was provided by the Ford Foundation. The views expressed in this paper are those of the author and do not necessarily reflect the views of the Institute or its funders.

Introduction

For this first time, in 1980, the Current Population Survey (CPS) asked men who had a previous marriage whether they had children living elsewhere and whether they provided financial support to those children as part of its supplement on marital and fertility histories. Researchers found, however, that nonresident fathers with a prior marriage were seriously underrepresented in these data and that those who self-identified as nonresident fathers were significantly more likely to report that they provided financial support to their children living elsewhere than custodial mothers reported receiving it (Cherlin, Griffith and McCarthy 1983).

The 1987/88 National Survey of Families and Households also included detailed questions about fertility and marital histories of male and female adults and asked all parents whether they had children who lived elsewhere most of the time. Again, researchers found that nonresident fathers were seriously underrepresented in these data and that nonresident fathers who self-identified as such tended to report that they paid child support (Seltzer and Brandreth 1994).

Based on this experience, most researchers concluded that scarce resources for survey research should be spent on interviewing and analyzing custodial mothers. Since 1987, no survey of the entire adult population has asked men whether they have children living elsewhere. Instead, both the CPS and SIPP have continued to collect information about child support from custodial mothers. The SIPP asks men about their fertility, but it does not ask them where their children live. Research on nonresident fathers has certainly continued, but it has had to rely on subnational (or subgroup) data to shed light on this issue.

Since the early 1980s, child support has become a major policy issue. It is now viewed as a key element of our income security policy for low-income families. The federal government no longer guarantees cash assistance to poor single mother families; welfare is considered transitional support. These families are expected to eventually rely on their own earnings and child support. Yet we do not have a nationally representative survey that can identify nonresident fathers of poor children, which means we have no reliable estimates of their ability to pay child support. Without this information, policies will continue to be made on incomplete, and possibly misleading data. Thus, it is time to develop a methodology for large, national surveys that will produce accurate information about nonresident fathers.

The purpose of this paper is to describe what we do and do not know about nonresident fathers' ability to pay child support based on two national surveys that try to

identify this population--the National Survey of Families and Households (NSFH) and the Survey of Income and Program Participation (SIPP). Both surveys are nationally representative of the civilian, noninstitutionalized adult population. Other national surveys may identify certain subgroups of nonresident fathers, such as young nonresident fathers, but I am unaware of any other national survey that attempts to canvas the entire (noninstitutionalized) population of nonresident fathers.

How Are Nonresident Fathers Identified in National Surveys?

To date, researchers have taken both direct and indirect approaches to identifying nonresident fathers in national surveys. By asking the following questions of all adult males, the NSFH permits a direct approach to identifying nonresident fathers: (1) How many children have you ever fathered? For those who say they have fathered a child, they ask: (2) Do you have any biological children age 18 or younger who do not live in this household at least half of the time? In contrast, the SIPP asks women and men about their fertility but it only asks mothers about the living situations of their children who live elsewhere. It does not ask these questions of fathers. Thus, I have developed an indirect approach to identifying nonresident fathers in the SIPP. For payers of child support, I use a question in the SIPP that asks respondents whether they provide financial support for children living elsewhere. For nonpayers, I determine which fathers report having fathered more children than currently live with them. Unfortunately, I cannot discern the ages of the children who live outside of the household. Thus, I impose a series of age and marital history restrictions on the definition of a nonresident father to more accurately capture this population.¹³

Two other important differences between the SIPP and NSFH should also be mentioned. First, the SIPP allows proxy respondents to answer the questions for an interviewee, but the NSFH does not. Second, the SIPP imputes answers to many questions if a respondent does not answer it, but the NSFH does not. However, the SIPP does not impute male fertility and includes flags that indicate if an answer is imputed. In my indirect method of identifying nonresident fathers, I do not use imputed values.

These two surveys yield similar fertility information about men (age 19 years or older) despite their different survey designs. The NSFH finds that 65 percent of men had fathered a child, while the SIPP finds that 67 percent of men had fathered a child (see Table 1). In addition, the number of births per adult male are quite similar in the

¹³For further details regarding these restrictions, see Elaine Sorensen, "A National Profile of Nonresident Fathers and their Ability to Pay Child Support." Urban Institute Working Paper, 1997.

NSFH and SIPP. In the NSFH, adult males report 1.78 births/male; in the SIPP, adult males report 1.7 births/male.

In contrast, the NSFH and SIPP yield significantly different percentages of men as nonresident fathers. In the SIPP, 8.6 percent of men were identified as nonresident fathers, or 7.3 million men, but only 6.9 percent of men in the NSFH were identified as such, or 5.6 million men.¹⁴

Table 1 also shows that both surveys underrepresent fathers. In the NSFH, 14 percent fewer men than women reported that they had been a (biological) parent, while 10 percent fewer men than women reported that they had been a (biological) parent in the SIPP.¹⁵ Men also report fewer births than women. In the NSFH, men report 84 percent as many births as women; in the SIPP, they report 89 percent as many births as women.

In both the NSFH and the SIPP, there are significantly smaller numbers of nonresident fathers than custodial mothers. In the NSFH, there are 61 percent as many nonresident fathers as custodial mothers; in the SIPP, there are 74 percent as many nonresident fathers as custodial mothers.¹⁶

What Do We Know About Nonresident Fathers Who are Identified in National Surveys?

Although the SIPP identifies more men as nonresident fathers than the NSFH, both surveys provide remarkably similar demographic profiles of nonresident fathers identified in national surveys. As Table 2 shows, nonresident fathers in these two surveys are predominantly white, ever-married, in their thirties, with at least a high school education.¹⁷

¹⁴Nonresident fathers in the NSFH are limited to those whose focal child is under 18 and lives with the mother.

¹⁵The nonresponse rates to the fertility question are not that different by sex in the NSFH and SIPP. In the NSFH, only one person (a woman) did not answer the fertility question; in the SIPP, about 5 percent of women and men did not respond to the fertility question.

¹⁶Custodial mothers in the NSFH and the SIPP are limited to those who indicate that at least one of their children living with them is under 18 years old.

¹⁷Neither of these descriptive profiles has been altered to adjust for the under representation of nonresident fathers in these surveys. I have simply applied the population weight that is supplied by the NSFH and SIPP to the individual records.

The only characteristic in which the NSFH and SIPP differ substantially is the extent to which nonresident fathers pay child support. In the NSFH, 78 percent of nonresident fathers report that they provided financial support for their children living elsewhere, but only 55 percent of nonresident fathers in the SIPP report that they paid child support. The questions about paying child support are different in the two surveys, which may lead to this discrepancy. The NSFH asks nonresident fathers with a child support order how much they are suppose to pay and then asks whether any payments were missed. For nonresident fathers without an order, the question in the NSFH is similar to the question asked in the SIPP. Both of these questions ask nonresident fathers whether they provide any financial support for their children living elsewhere.

Although nonresident fathers in the NSFH are more likely than nonresident fathers in the SIPP to report that they pay child support, the former report spending about the same proportion of their income on child support as do the latter. The average nonresident father in the NSFH spends 8.6 percent of his income on child support, while the average nonresident father in the SIPP spends 8.0 percent of his income on child support. Both figures are considerably less than the amount that state guidelines suggest nonresident fathers should pay in child support. Thus, both surveys indicate that the *average* nonresident father could pay more in child support.

On the other hand, both surveys show that a sizable minority of nonresident fathers have low incomes. In the NSFH and the SIPP, 22 percent of nonresident fathers have personal incomes after paying child support that fall below 150 percent of the poverty threshold for an individual. I have used this definition of low income rather than the official definition of poverty that relies on family income, because the NSFH does not collect family income for all respondents. It should also be noted that child support guidelines are based on nonresident parents' personal income rather than family income, which is another reason for focusing on personal income. I use the poverty threshold for a single person because it provides a measure of the amount of income an individual needs to meet his basic needs (not because I think all nonresident fathers live alone).

Table 2 also shows that 14 to 30 percent of nonresident fathers who report that they do not pay child support also report having high incomes (which I define as above 150 percent of the poverty threshold for a single person). Thus, I find a large minority of nonresident fathers who are "deadbeat dads"-- they can afford to pay child support but do not.

How Many Nonresident Fathers are Missing in National Surveys?

To ascertain the extent to which nonresident fathers are underrepresented in these surveys, I compared the number of children that nonresident fathers report living elsewhere to that reported by custodial mothers. Custodial mothers' reports are used as a reference point because it is generally believed that their reports of children eligible for child support are more accurate than those of nonresident fathers (Cherlin et al. 1983). In addition, the NSFH and SIPP do not survey the institutionalized population. Because some nonresident fathers are institutionalized and custodial mothers are not, custodial mothers should provide a more accurate report of child support-eligible children.

Custodial mothers are identified in the NSFH and SIPP using questions that ask parents whether any of their children who live with them have a parent living elsewhere.¹⁸ The characteristics of custodial mothers in the 1987/88 NSFH and the 1990 SIPP are similar to those in the 1990 Current Population Survey-Child Support Supplement (CPS-CSS)--which provides the more commonly used data to describe custodial mothers (U.S. Bureau of the Census 1995).

In both surveys, nonresident fathers report having fathered fewer children who live elsewhere than those reported by custodial mothers. In the NSFH, nonresident fathers report a total of 8.6 million children living elsewhere, while custodial mothers report that they have 16.4 million children with a father living elsewhere. In the SIPP, nonresident fathers report a total of 13 million children living elsewhere and custodial mothers report 16.6 million children with a father living elsewhere.

To ascertain how many nonresident fathers are missing in these surveys, I divide the deficit of children reported by nonresident fathers when compared to custodial mothers by the average number of children reported by custodial mothers.¹⁹ This procedure yields 4.3 million nonresident fathers missing in the NSFH, or 44 percent of all nonresident fathers. In the SIPP, 2.1 million nonresident fathers are missing, representing 22 percent of the population of nonresident fathers.

Why are Nonresident Fathers Underrepresented in National Surveys?

There are three basic reasons why nonresident fathers are underrepresented in these surveys. First, both surveys are restricted to individuals who reside in households, meaning that individuals who live in group quarters, such as correctional institutions or

¹⁸All "custodial mothers" have physical custody of their children, but some of them share legal custody with the father.

¹⁹I use the average number of children reported by custodial mothers because other research has shown that men underreport their fertility. See, for example, Bachu 1996.

military barracks, are not interviewed. About 1.1 million men between ages 19 to 54 were institutionalized in 1987 and 1990 and about 1.5 million men (ages 19 to 54) lived in other group quarters in 1987 and 1990 (U.S. Bureau of the Census 1992, 1988). In other words, about 2.6 million men between the ages of 19 and 54 were intentionally missed by the NSFH and the SIPP.²⁰

The second reason nonresident fathers are underrepresented in these surveys is that they reflect the Census undercount of certain subpopulations, especially young black males. For example, it is estimated that the 1990 Census undercounted black males in their early thirties by 14% (Robinson et al. 1993). This undercount is incorporated into the NSFH and the SIPP because both surveys rely on the Census to develop their survey weights. About 2.2 million men between the ages of 19 and 54 were undercounted in 1987 and 1990 (U.S. Bureau of the Census 1988; Robinson et al. 1993).

The third reason that nonresident fathers are underrepresented in the NSFH and the SIPP is because men are significantly less likely to report that they have children living elsewhere than are women likely to report that they have children living with them with a father living elsewhere. As shown in Table 1, only 6.9 percent of adult men in the NSFH report that they have children living elsewhere (with the mother), while 10.3 percent of adult women report that they have children living with them who have a father living elsewhere. Similarly, in the SIPP, only 8.6 percent of adult men, but 10.6 percent of adult women say that they have child-support eligible children.

To estimate how many nonresident fathers are missed by the NSFH and the SIPP for these reasons, I first examined the Survey of Inmates in State Correctional Facilities, conducted by the U.S. Department of Justice in 1991. These data show that 42 percent of men in state prisons in 1991 had minor children and were not currently married. Since most institutionalized men (between 19 and 54) are in correctional institutions, I applied this figure (42 percent) to the adult male institutionalized population in 1987 and 1990 to estimate the number of nonresident fathers who were institutionalized at the time of the NSFH and SIPP surveys.²¹ Using this procedure, I estimate that about 500,000 nonresident fathers were institutionalized in 1987 and 1990 (see Table 3).

²⁰I examine 19 to 54 year olds to limit the population in question to those who are most likely to be nonresident fathers. I impose the lower age limit because the NSFH only interviews adult men who are at least 19 years old.

²¹See Garfinkel et al. 1997 for a similar approach to estimating the number of nonresident fathers in prison.

Since I have no information on the undercounted population, I used the same figure that I used for the institutionalized population (42 percent) to estimate the number of nonresident fathers who were undercounted by the NSFH and the SIPP. This yielded about 900,000 nonresident fathers who are undercounted in 1987 and 1990 (Table 3).

To estimate the number of nonresident fathers in 1987 and 1990 who lived in other group quarters (most of whom are in the military or at college), I assumed that men (19 to 54) who lived in other group quarters in 1987 and 1990 were just as likely to be nonresident fathers as men (19 to 54) in the NSFH and the SIPP. Based on this assumption, I estimate that 149,094 nonresident fathers were living in group quarters in 1987 and 183,675 were living in group quarters in 1990. Thus, a total of about 1.5 million nonresident fathers were not interviewed by the NSFH or the SIPP either because they were undercounted, institutionalized, or living in other group quarters.

The number of nonresident fathers who are underreporting their children living elsewhere is estimated as the residual category. I subtract the estimated number of nonresident fathers who were not interviewed by the NSFH or the SIPP because they were undercounted, institutionalized, or living in other group quarters from the total number of nonresident fathers who are estimated to be missing in these surveys. Using this procedure, I estimate that 2.8 million nonresident fathers are underreporting their children living elsewhere in the NSFH, and about 500,000 nonresident fathers are underreporting their children living elsewhere in the SIPP (Table 3). In other words, 65 percent of the underrepresentation of nonresident fathers in the NSFH is caused by underreporting, but only 25 percent of the underrepresentation of nonresident fathers in the SIPP is caused by underreporting.

Where Should Research Go From Here on Nonresident Fathers and Their Ability to Pay Child Support?

At this point, 22 to 44 percent of nonresident fathers are “missing” in national surveys. Given the magnitude of the problem, I make the following recommendations to improve our understanding of nonresident fathers and their ability to pay child support.

First, we need a description of nonresident fathers who are not interviewed in national surveys, most of whom are undercounted. One of the key reasons individuals are undercounted by household surveys is because these surveys are limited to individuals who are “usual residents.” The U.S. Bureau of the Census conducted a survey in 1993 of 999 households, called the Living Situations Survey, which asked a series of probing questions about who is associated with each household. They found that these additional probes resulted in a 38 percent increase in the number of persons per household and an 5 percent increase in the number of usual residents (Martin undated). This survey asked some demographic questions, but a more thorough analysis of these

questions needs to be conducted. For example, how many households would have been typed single-mother households according to the simple “usual residence” question, but in fact had a father present at least some of the time?

A subset of these roster probes should be added to the Current Population Survey (CPS) and the SIPP, the two largest government surveys that are fielded on a regular basis and include detailed measures of income--a critical variable when analyzing nonresident fathers. Before these probes are added, however, further research needs to be conducted to ascertain whether these probes increase the number of usual residents, which probes are the most useful, and whether these probes affect the response rate to surveys such as the CPS and SIPP.

For individuals who are identified by these roster probes who are not usual residents, key information (e.g., sex and age) should be obtained at the time of the initial interview. In addition, follow up interviews with a subset of these individuals should be conducted to ascertain whether they are working, their other income sources, and whether they have children. Without this additional information, we will never have a reasonable profile of nonresident fathers and their ability to pay child support.

We also need to do a better job of identifying nonresident fathers who are interviewed in national surveys but who do not self identify themselves as nonresident fathers. At this point, little effort has gone into testing different approaches that may improve response rates among men to questions about fertility and children living elsewhere. Does the wording of these questions matter? Does the order of the questions matter? Does a context for these questions help improve response rates? Does it matter whether a proxy is used to answer these questions?

The U.S. Census Bureau should experiment with question design regarding nonresident fathers and the payment of child support. The SIPP already has a fertility supplement that asks fertility questions of both men and women. As I showed above, male fertility is not that different from female fertility in the SIPP. As currently designed, the SIPP goes on to ask mothers (but not fathers) about the living situations of their oldest and youngest child. These questions should be tested on a sample of fathers. The CPS already tested questions about child support payments in the 1996 CPS-Child Support Supplement. The results of these questions should be examined.

Although many researchers recommend that subnational studies of nonresident fathers be undertaken to learn more about their attitudes and behaviors, these studies will *not* provide a national profile of nonresident fathers and their ability to pay child support, which is critical to policy formation. Furthermore, administrative data on nonresident fathers is insufficient because they do not include the entire universe of nonresident fathers.

The only way to produce reasonably accurate estimates of nonresident fathers' ability to pay child support is to improve upon a large, on-going national survey. The SIPP and CPS are the most likely candidates because they already have questions that identify custodial mothers and are currently viewed as the most reliable source of information on child support.

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Table 1: Estimates of Parenthood from the NSFH (1987/88) and the SIPP (1990)

	Men (19+)		Women (19+)	
	NSFH	SIPP	NSFH	SIPP
Total Number of Men/Women	80,998,000	84,834,000	90,469,000	84,834,000
% Who Report Being a Father/Mother	65.2%	67.3%	75.9%	74.8%
Births per Adult	1.78	1.7	2.13	1.93
% Who Report Being a Nonresident Father/Custodial Mother	6.9%	8.6%	10.3%	10.6%

Source: 1987/88 National Survey of Families and Households (NSFH), 1990 Survey of Income and Program Participation (SIPP)

Table 2: Characteristics of Nonresident Fathers Who Are Identified in the NSFH (1987/88) and SIPP (1990)

	NSFH Nonresident Fathers	SIPP Nonresident Fathers
<u>Age</u>		
19-29	20.7%	24.5%
30-39	47.9	49.0
40+	31.4	26.5
Mean (in years)	36.1	35.2
<u>Race</u>		
Hispanic	11.1%	11.9%
White	65.6	67.8
Black	21.6	17.3
Other	1.6	2.9
<u>Marital Status</u>		
Currently Married	44.4%	49.6%
Separated	10.6	9.0
Divorced	31.0	27.5
Widowed	0.4	0.9
Never Married	13.6	12.2
<u>Education</u>		
Not a High School Graduate	18.8%	21.4%
High School Graduate	38.8	42.1
Some Post-Secondary Education	42.4	36.5
Mean (in years)	12.6	12.3
<u>Payment Status</u>		
Nonpayer	21.7%	45.2%
Payer	78.3	54.8
<u>Income and Payment Status</u>		
Low Income	21.5%	22.2%
High Income Nonpayers	14.4	30.2
High Income Payers	64.1	47.6
<u>Mean % of Personal Income</u>		
<u>Paid Towards Child Support</u>	8.6%	8.0%

Source: 1987/88 National Survey of Families and Households (NSFH), 1990 Survey of Income and Program Participation (SIPP)

Note: Low Income is defined as having personal income (after paying child support) below 150% of the poverty threshold for a single person

Table 3: Factors Contributing to the Underrepresentation of Nonresident Fathes in the NSFH and the SIPP

	NSFH	SIPP
Total Underrepresentation	4,355,279	2,077,387
Total Undercount*	2,200,000	2,265,800
% Who are Nonresident Fathers	42%	42%
Nonresident Fathers Who are Undercounted	920,700	930,998
Total Institutionalized*	1,114,000	1,141,589
% Who are Nonresident Fathers	42%	42%
Nonresident Fathers Who are Institutionalized	462,197	473,464
Total Other Group Quarters*	1,538,245	1,550,508
% Who are Nonresident Fathers	10%	12%
Nonresident Fathers Who are in Other Group Quarters	149,094	183,675
Total Number of Men Who are Underreporting That They are Nonresident Fathers	2,823,287	522,890

Source: 1987/88 NSFH; 1990 SIPP; U.S. Census Bureau 1988, 1992; Robinson et al 1993

*Total Undercount, Institutionalized, and Other Group Quarters are limited to men between the ages of 19 and 54 to eliminate older men who are probably not nonresident fathers.

APPENDIX L

**NEW DIRECTIONS FOR EXPLORING FATHERS'
ATTACHMENT TO HOUSEHOLDS**

Elizabeth Martin and Paul Siegel, Bureau of the Census

Introduction

Errors made by respondents or interviewers in listing persons on household rosters are an important source of coverage errors in censuses and surveys. Within-household omissions account for about one-third of all census omissions, and are higher for males and minorities, and nonrelatives within households (Hogan, 1992; Ellis, 1994; Fay, 1989). Despite the evidence, the household roster has not been approached systematically as a survey measurement problem. Most surveys lack standardized questions and procedures to help interviewers decide whether to list persons whose residence is ambiguous, leaving these determinations to the interviewer's discretion and skill.

Research suggests several reasons why respondents may erroneously omit persons from household rosters. Persons may be concealed due to concerns about how the information is used by Government or others (Hainer et al., 1988; de la Puente, 1993; Tourangeau et al., forthcoming). Complicated living situations, transience, and tenuous attachments to households make it difficult to determine who should be counted as a household member. Mobility among multiple households contributes to residential ambiguity (Bates and Gerber, 1994). In ambiguous situations, respondents' judgments are influenced by intentions and agreements, financial contributions and permanence of attachment, and other criteria which may conflict with official residency rules (Gerber, 1990; 1994). Arcane terminology and counterintuitive instructions may confuse or mislead respondents (Gerber, 1994; Gerber, Wellens, and Keeley, 1996). Household respondents may lack information about persons in their household, and may assume that part-time residents have a home elsewhere, when they don't. There may be disagreements within households about who belongs there and who doesn't (Hainer, 1987).

Rostering Strategy

In order to improve the coverage of tenuously attached persons, Census Bureau researchers devised an experimental strategy which cast a broad net in order to identify persons with any attachment to a household, no matter how weak or tenuous. The experimental rostering strategy was implemented in the Living Situation Survey, which was designed by Census Bureau researchers and conducted by RTI in 1993.

C **Step 1** in the survey was to interview household respondents and ask extensive roster probes and cues to list all persons with any attachment to the sample households. Extensive cues and probes were used to build rosters that included all persons with any attachment to the sample households, including (for example) persons who spent a night in the housing unit during the 2 month reference period, who received mail or messages there, had a key, contributed money for rent or bills, and so on. Cues also targeted undercounted categories, such as live-in employees, boarders, foster children, etc. The probes were developed based on evidence about

undercounts, as well as cognitive and anthropological research on how people think about residency issues. The intent was to include on the roster everyone who had spent time in a household during the reference period, or who had other sorts of attachment to it.

- C **Step 2** was to ask the household respondent questions to determine the residence of each person on the list. For example, household respondents were asked if this was the person's usual residence, "where he/she lives and sleeps most of the time."
- C **Step 3** was to follow up a subsample of the rostered persons for individual interviews.
- C **Step 4** was to determine (in the individual interview) all the places respondents had stayed during the reference period, and the nature of their attachment or participation in each household (e.g., did they help with chores, contribute money for rent, food, or bills, have children of their own who stayed in the household).

This design strategy offers the potential advantage of capturing information about persons in the gray area, who might otherwise be missed entirely. It also makes it possible to identify tenuously attached persons who have children staying in a household.

Interviews were conducted in 999 households (representing a 79.5 percent response rate) oversampled from areas with high concentrations of minorities and renters. A total of 3,549 people were listed on household rosters. The weighted mean of 3.62 persons listed per housing unit in the LSS is significantly greater than the mean of 2.63 persons per occupied housing unit in the 1990 census. The added probes in the LSS were especially effective at identifying more young minority males, who were less likely to be mentioned in response to more standard probes (Sweet, 1994).

More probing was needed to list persons with tenuous attachments than those who were more attached: Martin (1996) finds that on average 1.06 probes were needed to list the most strongly attached individuals, compared to 4.6 probes needed to elicit reports of persons with very weak attachments to sample households.

Based on the screening questions (Step 2), about three-quarters of the persons rostered using the new, inclusive procedure were residents of the sample households, and one-quarter lived somewhere else. When nonresidents were screened out, the mean number of usual residents per housing unit in the LSS was higher than the census for all race/ethnicity categories, but was significantly higher only for the total population (2.76) and for Hispanics (Sweet, 1994).

For a small but important group of marginal residents, household respondents' reports were often inconsistent with census rules and with reports of the individuals themselves. Nine percent of the persons rostered in the LSS (excluding casual visitors) had complex living situations, and household respondents' determinations of "usual residence" agreed with census rules for only 69 percent of them (Sweet and Alberti, 1994). The LSS followed up a sample of non-casual visitors rostered in the survey, and conducted individual interviews with them (or with proxies reporting for them). Sweet and Alberti (1994) find that in 95 percent of cases, the household respondent and the individual agreed on the individual's usual residence (proxy reports for the individual were excluded from their analysis). The 5 percent who disagreed tended to have complex living situations. Potential omissions due to inconsistent assessments of household membership were significantly higher for young, minority males compared to other groups (Schwede and Ellis, 1994).

To date, research based on the Living Situation Survey points to several conclusions. First, the expanded probing resulted in larger numbers of people listed on household rosters, with evidence of increases in undercounted categories (Hispanics, as well as young, minority males). Compared to the census, there was a 38 percent increase in the number of people rostered per household, but only a 5 percent increase in the number of usual residents per household. Second, household respondent reports of who lives in a household should not be taken as unproblematic. Third, people use different criteria and in many cases make different residency determinations than would be implied by the census residency rules. Fourth, living situations which are ambiguous and fluid are particularly vulnerable to misreporting and unreliable reporting. Fifth, more probing is needed to identify marginally attached persons than is customarily done in household surveys.

Identifying Tenuously Attached Fathers

Although the Living Situation Survey was not designed to investigate fathers' attachments to households where their children lived, the survey does suggest some avenues which might be worth exploring in future applications of this methodology. Once all of the places where a respondent had stayed during the 2-3 month reference period had been identified in the individual interview, respondents were asked for each, "Did you have children of your own who stayed at (PLACE)?" Thus, the survey provides preliminary information on parents' patterns of stay in households where their children also stayed. Table 1 shows, as one would expect, that the most common pattern is a stay in only one place where the R's children were living, and that place is the respondent's usual residence. This corresponds to a situation in which the children live with the respondent, and the respondent either has no other children, or didn't stay in the other children's residence during the reference period.

This pattern accounts for about 77 percent of fathers, and 85 percent of mothers, who stayed in households in which their children lived. The second most common pattern

was respondents' staying in 2 places where their children lived, one their usual residence and the other not. This pattern was more common for fathers than mothers, but accounts for a sizable fraction of both. (It is important to note that a variety of situations may give rise to this pattern, including stays in two different households in which different children reside, or a trip to a place away from home accompanied by ones children.) Finally, there are small fractions (over 2 percent) of both men and women who report visits to multiple households where their children were staying. About the same fraction of men report visiting one place where their children lived but they did not.

These data suggest that multiple and frequent (occurring within 2-3 months) stays or visits by parents in households where their children live are fairly common in comparison to what might be the expected, normative pattern of staying in a single, usual residence, where children live with the parent(s). Multiple stays are more common for fathers than for mothers, and may contribute to men being left off household rosters, since their greater mobility may lead to their being regarded as more marginal in each household (Bates and Gerber, 1996). (It also may lead to double-counting in some cases.) Note that the parents who visit their children in households which are not the parents' usual residence are likely not to be counted there under less persistent rostering practices. To some extent, this will manifest itself as children with absent fathers, and to a somewhat lesser extent, children with absent mothers.

It is important to be careful in drawing any conclusions from Table 1, since several key pieces of information are missing. The survey did not collect information to identify parents per se, nor did it collect information on the number of households in which the respondent has children living. Nor did it identify the ages of the "children," who may be adult. (Table 1 is restricted to respondents 60 years or younger, to eliminate most visits to adult children.)

Nonetheless, the fact that the survey finds substantial numbers of parents visiting and staying in households where their children live, and that stays in multiple places where children live appear relative common, suggest that expanded roster probes may be effective in identifying parents (especially fathers) who have tenuous or multiple attachments to households in which their children live.

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