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Explaining Family Change and Variation: Challenges for Family Demographers

Twenty years ago, the National Institute of Child Health and Human Development (NICHD) issued a request for proposals that resulted in the National Survey of Families and

Households (NSFH), a unique survey valuable to a wide range of family scholars. This paper describes the efforts of an interdisciplinary group of family demographers to build on the progress enabled by the NSFH and many other theoretical and methodological innovations. Our work, also supported by NICHD, will develop plans for research and data collection to address the central question of what causes family change and variation. We outline the group's initial assessments of orienting frameworks, key aspects of family life to study, and theoretical and methodological challenges for research on family change. Finally, we invite family scholars to follow our progress and to help develop this shared public good.

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The Decade Reviews published by *JMF* provide an opportunity for scholars to take stock of our progress in understanding families and to assess the challenges to continued progress. A less frequent occurrence is a mandate from a federal funding agency to evaluate what we know and what we need to learn about how families work. Over 20 years ago, the Demographic and Behavioral Sciences Branch of the National Institute of Child Health and Human Development (NICHD) issued a request for proposals (RFP) to “provide an assessment of the state-of-the-art of research in the family and household structure area, and recommendations regarding the content and strategy of a large scale data collection effort on the causes and consequences of changing family and household structure” (RFP No. NICHD-DBS-83-8, May 1, 1983, II-1, p. 5). The result of this RFP was the launching of the National Survey of Families and Households (NSFH), the most widely used data set to study families during the past two decades.

In December 2002, NICHD issued another RFP: This time the charge to researchers was to “develop a model for a coordinated program of research and data collection for the study of family that would . . . [address the questions]: a) What factors and processes produce family change in populations over time? b) What factors and processes influence variation in family change and behavior among racial, ethnic, socioeconomic, regional, and cultural groups, and among men and women?” (RFP NICHD 2003-03, December 10, 2002, p. C-1). In October

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2003, two decades after planning began for the NSFH, a group of researchers at Duke University, University of Maryland, and University of California—Los Angeles were awarded funds to work with NICHD to develop new models for understanding family variation and change. Since that time, researchers from Northwestern University have joined the core planning group. The charge from NICHD is an ambitious one that asks for plans beyond those necessary for an NSFH-like survey.

The NICHD charge requires a broad view of the methods and materials for studying change, a bold and inclusive approach for understanding family change and variation, and a disciplined effort to integrate past contributions with proposals for new research. Although the core group members are all centrally in the demographic community, our disciplinary orientations include anthropology, economics, psychology, and sociology. We also are drawing on the expertise of others from both inside and outside the demographic community to ensure that the widest set of ideas is considered in shaping this integrated research program. Because input from the community of family scholars is crucial and encouraged, a project webpage (<http://www.soc.duke.edu/~efc/>) makes available interim reports and other information. Public suggestions and comments are welcome. We hope that our planning efforts lead to new funded proposals, data collections, and analyses of family change and variation by ourselves and others. In describing our initial ideas in this article, we seek to open the process to insights from the wide array of family scholars who are developing new projects on families.

The remainder of this article summarizes our initial efforts to outline an agenda of research on family change and variation. The description of our project must be read in light of the evolving nature of our efforts: It is a starting point for what we hope will be a wider general discussion of the challenges of developing new models of family variation and change.

TWO DECADES OF PROGRESS

A number of family trends motivated the 1983 RFP that resulted in the NSFH: delayed marriage, smaller families, increasing numbers of mothers who combine paid work with caring for children, high divorce rates, cohabitation, and improvements in life expectancy that allow parents to see their children age through

adulthood and their grandchildren form new families of their own. In 1983, existing data were inadequate for fully *describing* these key changes in family processes and the effects of these changes on individuals. Researchers wanted to know more about family caregiving and child-rearing, family extension and inclusion of non-family members, the division of household and family labor, and exchanges of time and money between households. The NICHD contract was awarded to Larry Bumpass and James Sweet at the University of Wisconsin. With their colleagues at Wisconsin and across the country, Bumpass and Sweet developed plans for a new omnibus survey to collect data on family life unavailable in then existing sources. The result was the now well known NSFH, a data set that remains a staple for research by family scholars.

The first wave of the NSFH was conducted in 1987–1988, a 5-year follow-up conducted in 1992–1994, and a third wave conducted in 2001–2002. The survey includes information about family members who coreside as well as about some kin, such as divorced parents, who no longer live together. NSFH also collected information about household members who were not related to the respondent by then conventional definitions of family membership, including cohabiting partners. The longitudinal study design combined with the detailed life history information obtained from respondents on their living arrangements in childhood; departures and returns to the parental home; and histories of marriage, cohabitation, education, fertility, and employment recognizes that the quality of family relationships depends on past experiences as well as on contemporary arrangements. Finally, the study interviewed multiple members of the same household to provide insight into the different perspectives of husbands, wives, parents, and adolescent and adult children. Sweet and Bumpass worked closely with the community of family researchers to cover a wide variety of domains of family life and to allow researchers from a variety of theoretical perspectives to use the data (<http://www.ssc.wisc.edu/nsfh/>).

Family researchers have learned a great deal from the NSFH. But once there was expanded description of what was happening in families, understanding the mechanisms of change and the variability in family processes across groups became even more important.

In 1983, the new theory of home economics (Becker, 1981) was just beginning to spread

beyond economics. Social network theory was only starting to be applied to families (Granovetter, 1983), and theories of ideational change were being transformed in light of new questions about family change (van de Kaa, 1987). Understanding of identification in causal models was limited, as were empirical methods for testing modeling assumptions. Data collection was primarily interviewer assisted or self-administered paper and pencil surveys. Researchers rarely used other survey methods and nonsurvey approaches (e.g., administrative data or experiments) for large projects. During the past two decades, there have been innovations in all these areas: data collection methods, analytic techniques for causal inference, and theory.

Also, new questions about families have emerged along with intellectual developments in several disciplines. Today, the role of biology and biological constraints receives much more attention because of improvements in measurement of biomarkers and of behavioral and molecular genetics as well as advances in theories about their role in behavior. The National Longitudinal Study of Adolescent Health (Add Health), for example, has an embedded twin sample and collects various biomarkers to enhance studies of teenagers' health and resilience (<http://www.cpc.unc.edu/projects/addhealth>). Ethnographic components and developmental observational methodology complement survey data collection to provide a richer understanding of the context in which families live (e.g., Welfare, Children and Families: A Three-City Study, <http://www.jhu.edu/~welfare>). Other studies match self-reported information about such things as work histories with administrative data such as Social Security Records (as in the Health and Retirement Study, <http://hrsonline.isr.umich.edu/>).

Families that were largely absent from analyses 20 years ago, for instance, immigrant families and gay and lesbian families, have become more important as have persistent, and in some cases, increasing, differences across racial and ethnic groups in family patterns. (See *Changing Faces of America's Children Young Scholars Program* at the Foundation for Child Development, <http://www.fcd-us.org>.) New theories, data, analytic tools, and circumstances in American society lead to questions not often posed in the past. How does the increase in life expectancy affect family life when four generations may be alive at the same time? To what extent are children and parents of cohabiting partners

treated as family members? Why are marriage and parenthood linked for some racial, ethnic, and economic groups but not for others?

All these factors—new questions about family life, new developments in theory and method, the evolution of a number of large-scale research projects tapping aspects of family life and pointing the way to possible methodological innovation—form the backdrop for our project. We begin with basic questions about family life, proceed to outline four orienting conceptual frameworks, and then discuss the application of new theory and methods to unanswered questions in five key aspects of family life.

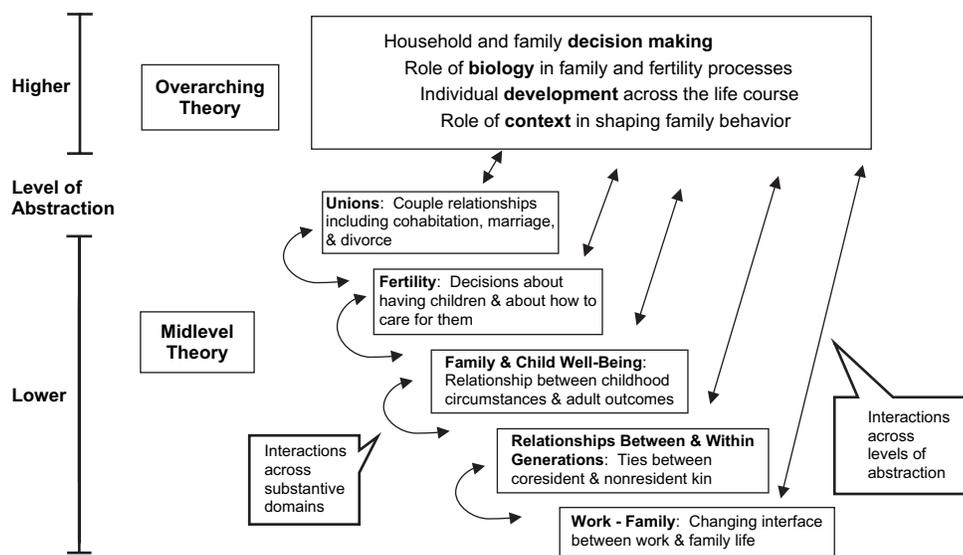
PROJECT OVERVIEW AND STRATEGY

We pose the basic questions: *Why* do individuals organize into family units? What accounts for *how* families are organized? At least five disciplines provide major theories that address these questions: biology, psychology, economics, sociology, and anthropology. Not surprisingly, each discipline tends to emphasize the factors that the field understands best. Biologists emphasize the value of family for the survival of human genes and the role of evolution in hardwiring human beings in ways that make family life attractive. Psychologists focus on how individuals develop family ties and the

individual and family processes that affect the durability and consequences of these ties, including cognitive functioning, personality, marital interaction, parenting, family systems, and other interpersonal relationships. Some psychologists also adopt a clinical orientation in which they use knowledge of these processes to enhance the well-being of individuals and families. Economists emphasize individual choice and the benefits that accrue to individuals from family life that are impossible or more costly without it. Sociologists recognize that this choice is constrained by institutions and norms, inequality in the distribution of resources, power relationships, and the structure and composition of social networks. Finally, anthropologists focus on the shared meanings that individuals assign to their choices about being in different types of families, on the role that family plays in the culture and organization of society as a whole, and on the competing interests that foster some family forms over others.

Our project stresses that family research has much to gain by integrating these views and exploiting the complementary nature of these explanations. Any project with interdisciplinary goals must consider how to translate discipline-specific theories into ideas that are accessible across fields. Our strategy, shown in the schematic in Figure 1, begins at a very abstract level.

FIGURE 1. SCHEMATIC DIAGRAM OF PROJECT STRUCTURE



We will try to construct an overarching theory that combines four orienting conceptual frameworks: household and family decision making, the role of biology in family and fertility processes, individual development across the life course, and the role of context in shaping family behavior. These interacting factors comprise the minimum set for a useful, abstract theory of family change and variation.

We apply these abstract notions to key substantive domains of family life: choices about entry into and exit from couple relationships including cohabitation, marriage, and divorce; decisions on when to have children and whether to have them within marriage; the relationship between childhood circumstances and adult outcomes; family relationships within and beyond household boundaries; and the changing interface between work and family life.

Activities at this lower level of abstraction can be thought of as building midrange theory. Midlevel theory is informed by the overarching theory, but it is more amenable to empirical tests because it is more closely linked to specific behaviors. The usefulness of the midrange theory provides indirect evidence on the value of the overarching theory. Interactions between levels of abstraction and iterations between midlevel theory and empirical tests provide the dynamics that lead to a refined model of family change and difference.

Our work group structure and plan of research mimic the theoretical schematic in Figure 1: Interlocking work groups populate these domains to review the existing literature, survey existing data sources, and critically evaluate current methodological practice.

U.S. families are the focus of our efforts. Yet, explanations for family behaviors in the United States require comparisons across social and cultural contexts—contemporary and historical—to locate characteristics that are common aspects of family life and those that are not.

ORIENTING CONCEPTUAL FRAMEWORKS

As noted above, our overarching theory will incorporate four conceptual frameworks (see Figure 1). We consider these frameworks at a reasonably high level of abstraction but include concrete examples of theoretical and empirical challenges that must be addressed to advance understanding of the causes of family variation and change. The frameworks echo aspects of

the disciplinary foci described above, but we attempt to demonstrate where connections among the foci offer the potential for innovation in new research on families. All the frameworks emphasize the problems of establishing causation, which we address later.

Household and Family Decision Making

Family life offers many potential benefits. Families can provide some goods and services more efficiently than individuals or markets. Moreover, families may resolve differences among members and negotiate compromises better than other groups because family members care about one another, know each other well, have long-term commitments to each other, and share a common set of values or understanding of their obligations to one another. There are also potential costs to family life, arising from compromises because individual family members have different preferences and needs. Understanding how individuals within families coordinate and make decisions and how they negotiate compromises and trade the perceived costs and benefits (now and in the future) of different choices about family life lies at the heart of our attempt to better understand families.

The most dominant model of family decision making is from neoclassical economics. It assumes that one member—the head—makes all decisions and does it in the best interest of family members (Becker, 1965, 1981). Although the model has provided a useful theoretical foundation for understanding family dynamics, it is predicated on assumptions that are difficult to reconcile with the realities of social behavior. Any decision that involves negotiation between two actors with divergent preferences or goals (e.g., the decision to divorce or leave the nest) can be difficult to model in the framework of this *unitary* family or household. Moreover, the empirical predictions of the model have been rejected in a wide array of settings, and the recent theoretical literature has highlighted the individuality of each family member (Blumberg & Coleman, 1989; Chiappori, 1988; McElroy & Horney, 1981).

Much of the theoretical literature has focused on couples who bargain over the distribution of resources, with the relative power of the man and woman governing the distribution of what economists call the family surplus. Theories about bargaining and decision making involving

other actors (e.g., children) are much less developed. Children's role in family decisions increases through childhood and adolescence as they begin to establish independence and consider moving away from their parents' home (Dornbusch et al., 1985). Adult children's decisions about how to care for older parents may involve even more actors if siblings coordinate this responsibility among themselves and with their parents (Pezzin, Pollak, & Schone, 2005).

The distinction between families and households is also essential, particularly for empirical research (Burton & Jayakody, 2001). The extent to which family members coreside is an outcome of family decision making. It reflects decisions about marital disruption, young adults choosing to strike out on their own, and older adults living with their children. Most large-scale surveys are household based, and so, apart from important exceptions such as NSFH and the Family Life Surveys in Indonesia, Malaysia, and Mexico, very little is known about non-resident family members. This has seriously impeded our understanding of family change and variation.

Economic models of family decision making would be enriched by incorporating insights on the process of conflict and conflict resolution from psychology, the role of genetic-environment interactions from evolutionary biology and psychology, the importance of social context and social networks from sociology, the role of culture from anthropology, and greater care in the measurement of individual characteristics, preferences, and tastes. Several key questions and challenges must be addressed about decision making in families. First, what are the unique features of family as an institution that coordinates the sometimes conflicting goals of individuals? Do families have unique ways of resolving conflicts and enhancing the benefits of family membership as compared to other social groups (e.g., clubs or work units)? What are the sources of family solidarity and how does family solidarity vary across contexts? How are the benefits and costs of family membership distributed within families, and what explains inequality among family members? How do norms and other aspects of the social and economic context affect choices and the process by which families make choices? What outcomes do individuals perceive to be choices and what outcomes are taken for granted? Finally, what study designs and measurement strategies

will best capture variation in family decisions, the criteria used to make decisions, and power differences among family decision makers?

Role of Biology in Families and Fertility

People are biological creatures, inheriting an evolutionary history, genetic patterns, endocrine processes, and physiological form. This biological makeup may help us to understand human emotions, physical constraints, and other factors that influence family interactions. Evolutionary biologists provide well developed theories on the relation between emotions and family choice, and increasingly, microbiologists and neurobiologists are finding specific pathways associated with emotions such as love, impulse control, and aggression. New work by neurobiologists shows that activity in specific parts of the brain is associated with feelings of romantic love, and work by endocrinologists suggests that changes in specific hormone levels may be associated with romantic attachment. For example, dopamine and norepinephrine are associated with animal attraction and may be associated with the sensation of human romantic passion (Fisher, 2004). Moreover, innovative research illustrates the importance of social relationships for biological processes (Cacioppo, Berntson, Sheridan, & McClintock, 2000).

Although the use of microbiological and neurological data to study behavior is an exciting new approach, most of the studies remain descriptive. For example, bioassay technology is useful, especially when incorporated into longitudinal survey data collection, but bioassay data share many of the shortcomings of standard social science data collected in surveys. Typically, endocrine levels are measured at a single time. Although there have been some experiments in which respondents were manipulated to measure response levels of endocrines, this type of bioassay collection often has not been linked to survey data. In addition, because endocrine levels are both *related to* behavior and are *affected by* behavior, causality is extremely difficult to establish. The use of bioassay data in family research would benefit greatly from careful observational and experimental analyses.

The incorporation of biological approaches into the study of family variation and change is an important challenge, in part, because of the inherent difficulties of crossing the social and

natural science divide. Yet, bridging this gap is essential for theoretical and empirical advances in understanding families. Insights from evolutionary biology, genetics, behavioral endocrinology, and other biological approaches may inform family theories by identifying mechanisms of change—both biological and environmental—in fertility and other aspects of family life. Biological and genetic processes also contribute to an understanding of individual variation in family behavior because they influence and are influenced by individuals' responses to the opportunities and constraints of their social environment. A goal in combining approaches from the social and natural sciences is to develop testable implications of theories and to do this in conjunction with improvements in the measurement of important biological constructs.

Individual Development and Family Life

Family choice and individual development are linked by three questions: How do individuals reach adulthood with the individual capacities that lead to or limit healthy relationships? What role do family relationships play in the social-psychological development of adults? What mechanisms alter social-psychological functioning in adulthood? (Chase-Lansdale, 2004). To answer these developmental questions, researchers must determine what makes people happy and healthy in relationships and why some marriages function well and others break up. Answers increasingly focus on the nexus of biological constraints, social context, and individual experiences that collectively contribute to the development of personality, capacity, and well-being. The argument is no longer *nature versus nurture*, but instead, modern psychology casts individual development as *nature through nurture* (see Shonkoff & Phillips, 2000).

A concern with human functioning over the entire life span requires investigation into the ages or life stages at which competencies, such as learning to trust, are typically acquired and consideration of *how* these competencies are acquired. How individuals were reared appears to be particularly important for understanding how they function in adult relationships. Although there is considerable variation across individuals in physiological, cognitive, and affective makeup, no doubt affected by family environments, there is substantial continuity of characteristics within individuals over time

(Caspi, 2000; Chase-Lansdale & Votruba-Drzal, 2004). Genetic constraints and consistent environmental influences account for this stability. Yet, continuity over the life course in individuals' personality does not mean that paths are set at birth. Both experimental and nonexperimental evidence is accruing about mechanisms that can affect family functioning and alter psychological functioning of individuals as they age (Chase-Lansdale, Kiernan, & Friedman, 2004).

To advance understanding of family variation and change requires longitudinal study designs to observe changes in individuals over time as well as intergenerational designs to capture the effects of strengths and weaknesses that parents pass on to their children. New designs must address the critical role of genetic factors and various biomarker levels in shaping individuals' reactions to their social and physical environments. Continued advances in twin designs and molecular genetics may result in more sophisticated understanding of the importance of environmental experiences at different points in the life span (e.g., Caspi et al., 2002, 2004; Reiss, Neiderhiser, Hetherington, & Plomin, 2000; Turkheimer, Haley, Waldron, D'Onofrio, & Gottesman, 2003). In addition, broadening the focus of traditional designs beyond parent-child relationships that affect individual development is likely to improve knowledge but also increase the cost and logistical challenges researchers face. Methodological challenges include the feasibility of designing randomized experiments that assign individuals or families to interventions that offer the chance of rigorously identifying sources of variation and change (Cowan & Cowan, 2002).

Contexts Shaping Families and Family Change

A central theme in the social history of the modern period is the view that there has been a progression from familial to nonfamilial modes of organization that removes from families many of the functions they served in earlier times (Coleman, 1993; Popenoe, 1993; Thornton & Fricke, 1989). Schools socialize children, paid labor markets supplant household-based economic production, and social welfare programs diminish the need for support from extended kin. This progression from family- to nonfamily-based modes of organization, however,

enlarges rather than limits the domains that require attention in any study of family change. None of these nonfamilial modes of organization completely replaces the family as a social institution. Rather, these contexts help set the boundaries within which family decisions are made.

Three central challenges are (a) to identify the relevant contexts that influence families, (b) to determine the best ways to measure these contexts, and (c) to assess how to isolate the causal influences of these contexts on family variation and change. Relevant aspects of context include social institutions, culture, social interaction, technology, macroeconomic and market forces, geography and the physical environment, and laws, regulations, and social policies. This is a long list, but it is not exhaustive. A complete discussion of even these factors is beyond the scope of this article.

Measurement and design problems are more easily addressed for some dimensions of context than for others. Researchers often can access administrative data from national accounting systems. Dates of enactment and provisions of laws are often available, although it can be difficult to track how rapidly changes filter through the administrative and enforcement system, and consistent measurement across time or across geography is often lacking. Measurement of the physical environment is only now beginning to be exploited, such as air quality and exposure to other environmental hazards. Recent advances by ethnographers in anthropology and sociology who describe rigorously how individuals understand the world around them, particularly the choices available to them and their perception of the normative value of these choices, provide a basis for improvements in measures of the cultural context in quantitative studies, such as surveys.

Yet, there are some aspects of context, culture perhaps being one, where determining how and what to measure, although extremely important, is quite difficult. The primary challenge in this domain is producing both theory and data that will help isolate the causal effects of context on family behavior. Causality is often murky because individuals have some choice about the contexts in which they operate, and collective actions on the part of individuals (e.g., more nonmarital unions or childbearing) over time may change the context (e.g., norms about marriage). Cross-country compara-

tive research highlights another challenge for establishing causality, the difficulty of identifying unique factors that explain variation among countries when countries differ in a constellation of cultural, institutional, and policy factors. Although the difficulties of establishing a causal link between contexts and family behaviors are well understood, the solutions to these problems are imperfect and require much greater attention.

MIDLEVEL THEORY AND KEY ASPECTS OF FAMILY LIFE

Innovations in the conceptual building blocks of theories of family change also require empirical tests. In Figure 1, we specify five aspects of family life that require theorizing at a midlevel range. These domains provide a starting point that builds on contemporary policy debates about family variation and change. We discuss, in turn, each substantive domain.

Union Formation and Dissolution

Marriage has been the primary setting for childbearing and childrearing in the United States, both historically and continuing to the present. Marriage facilitates the division of labor between spouses, encourages the pooling of resources and investment in children and other public goods, and reduces the risks involved in long-term exchanges, particularly the economic risks that married women incur by limiting labor force participation while raising young children (Waite, Bachrach, Hindin, Thomson, & Thornton, 2000). Marriage confers a set of rights and responsibilities on both husbands and wives; many of these rights are codified by law, and all are reinforced by norms and common social understandings.

Nonetheless, the incidence and durability of marriages and the link between childbearing and other family activities have undergone significant changes in the United States and in many other countries (Cherlin, 1992, 2004). Men and women increasingly delay marriage. High percentages of African Americans and those with few economic resources never marry (Casper & Bianchi, 2002). For many, marriage no longer represents a lifetime commitment (Thornton & Young-DeMarco, 2001) and childbearing and childrearing are no longer restricted to marriage (Casper & Bianchi). These changes in the institution of marriage heighten the

potential conflicts of interest between spouses and among prospective partners.

Family scholars and policymakers recognize the challenges of understanding the causes and effects of changes in marriage, cohabitation, and divorce. The theme of the annual meeting of the National Council on Family Relations in 2003 was "What Is the Future of Marriage?," and *JMF* published a symposium on marriage in the fall of 2004. The U.S. Federal Interagency Forum on Child and Family Statistics has sponsored two conferences on "Counting Couples" in the past 3 years, and several recent European and Asian conferences have been organized on the topic of marriage. At the same time, policy initiatives by federal and state governments to foster marriage and to improve the quality and stability of marriage, as well as the national debate about same-sex marriage, support the choice of union formation and dissolution as key topics for understanding family variation and change.

The trends and differentials in union formation and dissolution are reasonably well documented, but there is no consensus about the causes of the trends and differentials (Booth & Crouter, 2002; Seltzer, 2004; Waite et al., 2000). At present, the field is characterized by a set of plausible theories that provide interpretations of these trends. Cultural or ideational shifts that may be part of the broader secularization and individualization of Western societies are a commonly invoked explanation for changes in marriage (Lesthaeghe, 1995). At the same time that changes in the meaning of marriage have occurred, the benefits of marriage have changed because of increased opportunities for sexual relationships outside of marriage, greater tolerance of single parenthood, declining marital fertility, improved employment opportunities for women, and changing gender specialization within marriage, all of which reduce the unique value of marriage (Casper & Bianchi, 2002). Marriage remains different from other unions because it is a publicly sanctioned relationship, which enables it to provide *enforceable trust* (Cherlin, 2000; Pollak, 1985). An environment in which divorce rates are high, however, limits spouses' ability to enforce the marriage contract and makes cohabiting and other nonmarital unions relatively more appealing. Finally, biologists and evolutionary psychologists are developing new theories about biological predispositions that may underlie

emotions that form the glue in long-term relationships, although their potential contribution is as yet undeveloped.

Although these theoretical perspectives are potentially powerful explanations for union trends and distributions (Waite et al., 2000), in their current form, they do not provide sufficiently reliable predictions about future trends. Knowledge from psychological studies of marital processes that generate satisfaction or conflict and union dissolution is yet to be integrated with demographic perspectives on family change (Chase-Lansdale, 2004). We know relatively little about the process of finding a partner or the capabilities that partners bring to the relationships, including their developmental histories. We do know that a propensity to divorce is transmitted across generations (Diekmann & Engelhardt, 1999; McLanahan & Bumpass, 1988), but demographic simulations show little effect of this intergenerational propensity on changes in family structure at the population level (Musick & Mare, 2004). Racial, ethnic, and socioeconomic subgroups differ in their attitudes, rates, and trends in union formation and dissolution, but family scholars still lack compelling explanations for these differences (Oropesa, 1996; Raley, 2000; Sweeney & Phillips, 2004).

Enhanced understanding of variation and change in union formation and dissolution in the United States will require attention to several issues, some of which require improvements in data on union formation and dissolution. Nearly all theoretical approaches consider men and women as separate actors; yet, few large-scale studies include information from both men and women or couples. Improvements in study design and measurement of central constructs, such as trust and perceptions of the costs and benefits of marriage, would enable more rigorous tests of theories about racial, ethnic, and social class differences in union formation and dissolution. Determining what aspects of social context are important sources of change in unions is a critical concern that can be addressed, in part, by cross-country comparative analyses that take into account a range of social and institutional characteristics of the environment. A rigorous approach to establishing causation also may benefit from using survey data to test hypotheses derived from game theory and by building experimental manipulations into large-scale surveys of union formation and dissolution.

Finally, the rapidly changing nature of marriage in the United States requires a continued emphasis on producing high-quality data on trends and differentials. Investment in improving measurement of couples, whether or not they live together, is likely to benefit new theory and research on union formation and dissolution (e.g., Manning & Smock, 2005).

Childbearing

The parent-child dyad is a central component of any kinship study. The general trend toward lower fertility in the United States as well as in other developed countries motivates our emphasis on the reasons people want children, when they want to have them, and whether the children are born in marriage, cohabiting or other nonmarital relationships, or to single mothers. Although fertility has declined in all developed countries, substantial variation remains as a result of variation across countries in the timing of childbearing. For instance, in the United States and some Western European countries, total fertility rates are about 2 (children/woman), but Southern European countries have total fertility rates closer to 1.3. Country variation in childbearing provides a valuable opportunity for exploring the social processes that account for fertility change (DiPrete, Morgan, Engelhardt, & Pacalova, 2003; Morgan & King, 2001).

Because the decline in childbearing results from smaller families as well as delays in when people have children, explanations for low fertility must distinguish between what demographers call the *demand* for children and factors that affect the *timing* of childbearing. Fertility decline in the United States also has been marked by a shift toward an increasing percentage of children being born out of wedlock. Nearly a third of recent births occurs outside of marriage, and African Americans are much more likely to have children outside of marriage than are Whites (Ventura & Bachrach, 2000). A goal, therefore, in our treatment of fertility is to explore the relationship between childbearing and union formation and dissolution and to consider why the relationship varies across groups.

Several well developed theoretical approaches explain the decline in the number of children couples want. Reductions in the number of children have historically been related to increased

child costs (Becker, 1981, 1991), a potential reversal of wealth flows (e.g., from parents to children rather than a flow from children to parents in old age) (Caldwell, 1982), increased levels of (female) education, higher opportunity costs of women's time (Willis, 1973), and population policies (Gauthier, 1996). These factors still may be relevant. But new factors also may be at play. For example, the diffusion of low-fertility norms and value orientations is particularly emphasized in the second demographic transition theory (van de Kaa, 1987), which argues that family change in developed countries since the 1970s is due to ideational shifts toward more postmodern, individualistic, and postmaterialistic value orientations. This is the same type of ideational change explanation posited for declining marriage.

Theories that explain the timing of childbearing may be quite different from those focused on the number of children. Timing of childbearing is related to other factors, such as increased incentives to invest in higher education and labor market experience, increased uncertainty in early adulthood, general economic uncertainty (e.g., in Central and Eastern European transition countries), and inefficient housing markets leading to high costs of establishing or expanding independent households.

Social interaction may reinforce individuals' decisions to delay childbearing. Individuals learn from others about ways to limit births and about what are desirable behaviors and outcomes (Kohler, Billari, & Ortega, 2002; Montgomery & Casterline, 1996). Once knowledge and attitudes about the desirability of postponing childbearing spread, this may perpetuate delays in having children even after the socioeconomic conditions that caused the initial delay have reversed.

In explanations for fertility decline, perhaps more than in any other family realm, technological change is likely to play an important role in accounting for family change. The wide availability of the birth control pill, increased access to abortion, and improvements in reproductive medicine that address problems of infertility improve couples' (women's) chances of having the number of children they desire when they want to have them. A potential pitfall of emphasizing technological innovations, however, is the assumption that the new technology will be used as its developers intended. Technology may have unintended consequences. For instance, women in rural Gambia use Western

contraceptive technology to increase fertility rather than to limit it (Bledsoe, Banja, & Hill, 1998). Technological explanations also assume that couples (women) act consciously to control childbearing, but this is not always true. A critical challenge for explanations of variation and change in childbearing is to identify when childbearing is the outcome of conscious decision making and when it is not.

Major unanswered questions about recent fertility trends and differentials include the following: What are the likely future trends? How do these trends affect other aspects of family life in the contemporary United States? To what extent do past and future trends depend on institutional settings, social changes, and technological progress? How can we explain the differences and similarities between the United States and other developed countries and differences among subgroups in the United States? Methodological challenges include identifying the circumstances under which individuals do not perceive childbearing as a choice, how best to measure childbearing intentions, when and how to treat fertility as the outcome of a couple's rather than an individual's intentions, and how to cost effectively acquire biomarker, social psychological, and demographic data on women and men as they pass through their reproductive years while at the same time protecting the rights of human subjects.

Childrearing and Families' Effects on the Next Generation

In virtually every time and place, one of the most important family responsibilities is the care and nurturing of the next generation. Human fetuses require a relatively long gestational period for a healthy birth outcome. Human infants require many years of care by adults. Once children can care for themselves physically, they still require substantial care before they are able to provide for their needs and to function more or less autonomously. Given the skills required in modern societies and the time it takes to acquire advanced educational credentials, the number of years it takes children to achieve adult self-sufficiency is likely increasing in the United States and other developed economies. Hence, a sustained period of investment must occur for salutary child and young adult outcomes.

One way to conceptualize the process of caring for the next generation is to ask what

families do for or contribute to their children to promote healthy child development and children's ability to form culturally appropriate family ties in adulthood. Parents contribute shared genes and a family environment in which the types of time and money investments parents make in their children depend, in part, on what parents believe will help their children have a good life. Cultural factors and belief systems, including religious beliefs, affect parents' understanding of how to meet children's needs. Child-rearing practices also depend on children's own characteristics. For instance, parents may spend more time with children who are having trouble with schoolwork than with their siblings who complete school assignments effortlessly. Although parents, especially those who live with their offspring, are vitally important actors affecting children's welfare, they are not the only relevant actors. A key issue, in light of the high incidence of divorce and nonmarital childbearing and childrearing, is the role of such actors as nonbiological parents and nonresident parents. In addition, grandparents, other kin, and unrelated actors and institutions, including peers, schools, neighborhoods, and media, also influence children's development. Theory and research on childrearing and child well-being must take into account the *linked lives* of parents, children, and other kin and must acknowledge that these relationships occur in a family system. For example, a mother's psychological state affects how she spends time with children, her child-rearing practices, the quality of her relationship with the children's father, and, as a result, the father's relationship with the children. In addition, parents' mental health may be a function of children's health as well as a determinant of child outcomes, including the quality of the relationships they form in adulthood.

Emerging research on children's well-being recognizes genetic and biological characteristics of children that affect how their families treat them and how children respond to aspects of the social context (see, e.g., Shonkoff & Phillips, 2000). The Add Health Study and the Dunedin Multidisciplinary Health and Development Study (<http://healthsci.otago.ac.nz/division/medicine/dnschmed/dmhdru/>), for example, are designed to explicitly take account of genetic predispositions and the interaction of biological and environmental factors. Other studies, such as the Panel Study of Income Dynamics (<http://psidonline.isr.umich.edu/>), measure children's

time use to provide a more complete picture of how parents trade off time and monetary investments in children (Sandberg & Hofferth, 2001). A particular challenge for new research on children's welfare is to determine all the relevant people who affect children's development (coresident and nonresident parents, siblings and other kin, peers, classmates and neighbors) and how to measure the many mechanisms through which they affect children (Rutter, 1998). Parents' decisions about how to care for children, including decisions about where to live and who is an appropriate playmate, set the stage for other individuals to affect children's development. As in all the other topics we consider, there is the problem of rigorously identifying causal effects.

*Intergenerational Relationships:
Kin Obligations Throughout Adulthood*

Families are multigenerational by definition. Even ties between siblings, members of the same generation, begin because they share the same parents. Classic theories of family change treated the relative importance of family of origin and family of procreation as a primary dimension indicating change (Goode, 1963/1970; Harris, 1983). Characterizations of social class and racial and ethnic variation in family experiences also emphasize group differences in the primacy of parent-child bonds over conjugal bonds (Chatters & Jayakody, 1995; Rubin, 1976; Schneider & Smith, 1978). One cannot describe family change and variation without considering relationships among family members in different generations.

Demographic change also motivates the study of intergenerational relationships. The aging of the U.S. population means that individuals will increasingly be members of multigenerational families (Bengtson, 2001; Uhlenberg, 1996). Because of declining fertility, parents have fewer children in which to invest, but they also have fewer children who can provide aid as the parents age and need more assistance. Divorce and nonmarital childbearing may weaken ties to biological fathers (Cooney, 1994; Pezzin & Schone, 1999), and at the same time, they reinforce some grandparent-grandchild ties, as when grandparents raise grandchildren whose parents are unavailable. Cohabitation and remarriage create new ties that also may compensate for some of these losses (Wachter, 1998).

We know little about how increased life expectancy affects how family members interact with older and younger kin; nor do we know how the perception that life is long affects decisions about investments in children and grandchildren and expectations in each generation about providing and receiving help at different life stages (Hagestad, 2000). We also lack information on the relationship between within-family transfers and support from public programs (McGarry & Schoeni, 1995). Most of what we do know ignores that family members may provide financial help or other assistance across three generations instead of only two, the potential for reciprocity over the long term, the potential for coordination but also conflict among adult siblings whose older parents need care, and the role in family exchanges played by quasikin, such as stepchildren, children of cohabiting partners, stepparents, and parents' cohabiting partners. Because quasikin have ambiguous rights and obligations, individuals may feel that they have more choice about when to help step than biological kin (Ganong & Coleman, 1999). These new kin ties provide a valuable opportunity to study how expectations about kin obligations develop. Both theoretical innovations on the allocation of resources within families and methodological innovations to collect appropriate data are essential to take account of the changing demographic realities of family life.

Understanding variation and change in intergenerational relationships requires a lifetime orientation rather than a focus solely on older kin. Most transfers are from parents to children, including financial transfers to adult children who are setting up households and to new parents who need help with child care (Lye, 1996). Theories about how a family's culture affects transfers of time and money depend on information about how adults were raised (e.g., Cox & Soldo, 2004; Hagestad, 2000). Understanding intergenerational relationships also requires a lifetime orientation because parents and children may act strategically, for instance, when children do things for their parents in anticipation of bequests. Theoretical advances treat transfers within families as repeated games, taking account of changes over the life course in children's ability to participate in the game (infants do not, but teenagers and certainly young adults do) (see Lundberg & Pollak, 2002).

Studying intergenerational relationships is particularly challenging because many of the

relevant actors do not live in the same household. Household-based surveys can be used to identify nonresident kin, but the costs of locating and interviewing other family members in different households are very high. Families in which some members are estranged or for whom the relationship is of poor quality are an important subset for understanding family variation, but they are likely to be the most difficult to study using household-based surveys (Dykstra et al., 2004).

Other avenues for innovation in models of variation and change in intergenerational relationships include exploring whether racial and ethnic groups and members of different social classes differ in the glue that binds generations, spouses or nonmarital partners, and siblings, and if so, why. Equally important, what explains variability in intergenerational relationships within these groups? We also know little about when actors take for granted that they will share resources with another family member and when they make conscious decisions about resource sharing, and if there are gender differences in the criteria (equity, equality, or some other rule) for allocating resources. A further challenge is to explore how changes in social policies and technological innovations affect resource sharing across generations. Finally, addressing these questions is complicated by the fact that cognitive and emotional changes occur throughout life that affect attitudes about family members and recognition of short- and long-term obligations.

Family and (Paid and Unpaid) Work

Throughout our discussions of orienting frameworks for understanding family change and key substantive topics is the theme of rising labor force participation of women, particularly mothers of young children. Women's labor force participation is implicated in variation and change in union formation and dissolution, fertility, child-rearing practices and children's economic well-being, and the provision of care and financial exchanges within and between generations. Families in market economies always face the questions of who will earn the money a family needs and who will provide the care that children and other family members require and the support that the earner(s) needs.

In the mid-20th century United States, and still in many societies, market work versus

homework time allocations were highly specialized along gender lines, with paid work handled by men and unpaid work in the home largely the domain of women even when women also worked for pay (Casper & Bianchi, 2002). At the beginning of the 21st century, there continues to be variation among families with respect to this market work versus homework trade-off. Some segments of society and demographic groups still operate with a highly gender-specialized division of labor, especially when there are two parents and very young children. It is now much more common, however, at least in developed societies, for both women and men to be engaged in paid market work and unpaid domestic work and family caregiving (Bianchi, 2000; Bianchi, Milkie, Sayer, & Robinson, 2000; Sandberg & Hofferth, 2001).

Families must always decide how to allocate time and money, and the power of individual family members plays a crucial role in these allocation decisions. The concept of power has received a good deal of attention in the sociological literature (the classic study is that of Blood and Wolfe, 1960). Similar attention has been paid to this issue in the economics literature (Becker, 1991). There has been relatively little direct study of how U.S. families (re)allocate resources, such as money (Kenney, 2002; Treas, 1993), and how this changes as market work of women increases, approaches, or surpasses that of men in families. Nonetheless, there is evidence that family resources under the control of women are allocated differently from those under the control of men (Thomas, 1990).

A number of ethnographic studies describe strategies for combining work and family (e.g., Becker & Moen, 1999), and new descriptive information is available from time diary studies and beeper studies on objective and subjective dimensions of work and family life (Bittman & Wajcman, 2000; Mattingly & Bianchi, 2003; Robinson & Godbey, 1999). Missing from the research, however, is strong evidence of causal connections between work and the family processes that lead to family stresses and poor child or adult outcomes, which, in turn, affect other family processes.

Single parents are an interesting and unique case in this realm of study because their work and family negotiations almost by definition cross household boundaries. They have to negotiate assistance from nonresident parents and extended kin or friends, either those who coreside or those

who live elsewhere. Tracking these complicated time and money flows to and from single-parent households is difficult to do in data collections that use household-based sampling frames.

There is relatively limited information on the longitudinal, or life course, effect of different work and family decisions taken earlier in life. One exception is recent work by Joshi (2002) with British cohort data in which she estimates the effect of having children on a mother's accumulated lifetime work experience and earnings, and shows that effects can be substantial but primarily for the less educated. She shows that women's employment affects when they have children, but not how many they have and that mothers' employment has little effect on children's development. The use of cohorts of mothers and children represents an interesting attempt to study the linked lives of mothers and children and to model the bidirectional effect of maternal employment decisions on family outcomes, including child quality, and vice versa.

The NICHD has a separate initiative under way on work and family, with a primary focus on work-family policies in employment settings. Our efforts emphasize other challenges: efforts to improve data on the dynamic linkages among market work, unpaid caregiving activities, family formation and dissolution decisions, and intergenerational responsibilities. A particular challenge is to consider how existing data can be modified to take account of both husbands' and wives' perspectives on their paid and unpaid work.

ADDRESSING THE CHALLENGES: A PROGRAM OF ACTIVITIES

Figure 1 links the topics above into a structure that reflects our work plan. The most intense work will take place in work groups on key aspects of family life as shown in Figure 1. It is likely, however, that the greatest conceptual advances will result from the interaction across domains and between the work groups that populate them. Can we make headway on an overarching behavioral theory of family change and variation that acknowledges *decision making*, influenced by *biology* and constrained by a *developmental trajectory* and a *social context*? Will this theory be useful across substantive domains considered here (e.g., unions, fertility) and those studied by others? These are our challenges.

Our framework emphasizes different theoretical approaches to families, but common to all is a concern with the ability to draw inferences about *why* families differ and *why* they change. Our efforts to understand family variation and change are informed by two broad approaches to causation. In one, researchers explain family behavior by emphasizing the distinction between individuals' choices to behave in a certain way, for instance, deciding to get premarital counseling or moving to a better neighborhood, and the *effects* of participation in counseling or living in a good neighborhood. To use statistical language, these efforts seek exogenous sources of variation to try to pin down causal effects. We highlighted this problem in our consideration of family contexts, but it plagues researchers using other orienting frameworks as well. Researchers use a range of designs, including randomized treatment-control designs (e.g., Cowan & Cowan, 2002; Newhouse, 1993), survey and administrative data that exploit naturally occurring variation, such as twin births or miscarriages to assess effects of teenage childbearing on mothers' welfare (Bronars & Grogger, 1994; Hotz, McElroy, & Sanders, 1997), or variation from changes over time or space in policies about welfare benefits or custody laws that affect how family members spend time and money (Rubalcava & Thomas, 2004; Seltzer, 1998). Statistical innovations also have improved efforts to establish causation in this tradition (e.g., matching treatment and controls) (see Heckman, LaLonde, & Smith, 1999; Rosenbaum & Rubin, 1983).

A second approach to questions about why families differ emphasizes individuals' own explanations for their family arrangements. Listening to peoples' reasons for why they live as they do—why they are single or married, parents or not—and their accounts of the factors that influence them provides insight into cultural aspects of family change (e.g., Edin & Kefalas, 2005; Fricke, 2003). For instance, fathers' explanations for why they married and had children point to the necessity of considering employment, being a husband, and being a father as a "package deal" (Townsend, 2002). A successful integrated framework for explaining family variation and change must combine this with efforts to use the logic of experimental design and statistical analysis.

Our broad approach parallels the extremely broad questions posed by NICHD. To produce

a “coordinated program of research and data collection” requires going beyond conventional large-scale, single-method survey designs to collect data on families. But existing designs have many strengths that will continue to support family research. Improvement of our understanding of family change and variation calls for an integrated strategy of data collection, one that builds on theoretical advances using the conceptual building blocks we have articulated. We expect the outcome or product of our effort to include plans for new studies as well as enhancements to existing data collections, for instance, special topical modules or add-on studies of important subgroups already included in major ongoing surveys. Designs that include multiple methods of data collection are likely to be more fruitful than single-method studies in addressing the theoretical and methodological challenges that family scholars face.

Finally, it is clear that to improve theories and research about family change requires the efforts of the entire community of family scholars. We have offered this description of how we view the challenges that family demographers face for the future, but even as we are writing it, advice from other family researchers is informing our work and modifying our perspective. The end product of our work, the development of a research agenda, requires this assistance so that, in the end, we can meet the goal we affirmed by beginning this project: developing a shared public good that is the worthy successor of the NSFH and the multitude of other advances in data collection, methods, and theory in family research of the past two decades.

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