

Work–Family Spillover and Daily Reports of Work and Family Stress in the Adult Labor Force*

2002, Family Relations, 51 (1), 28–36

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Work–family research employing nationally representative samples and multiple methods of data collection is uncommon. We used data from two affiliated national surveys to examine the distribution of work–family spillover among working adults. The National Study of Daily Experiences (n = 741), an 8-day daily diary study using a subsample of the National Survey of Midlife Development in the United States (MIDUS; N = 2,130), allowed work–family spillover to be conceptualized and operationalized in different ways. Analyses testing family life course hypotheses indicated that self-reported negative and positive spillover between work and family were not randomly distributed within the labor force. Age was found to have a persistent curvilinear effect on negative spillover between work and family. The prevalence of co-occurring work and family stress reported over 8 days was comparable across nearly all the sociodemographic characteristics.

The quality of fit between an individual's work and family life is a primary issue for families today and a major challenge confronting the labor market of the future (U.S. Department of Labor, 1999a). Unfortunately, the picture that family life practitioners and policy makers have of work–family issues remains limited by a general lack of contemporary research using nationally representative samples or samples that adequately capture the work–family experiences of diverse segments of working adults in the general population. The populations that are understudied in work–family research are precisely those that will become more dominant in the labor force in the future (Kossek & Ozeki, 1998; Lambert, 1999; Rayman & Bookman, 1999), such that the labor force is expected to age and become more racially and educationally diverse, and job growth will be particularly strong in the service sector of the economy (U.S. Department of Labor).

Little is known about the work–family experiences of workers who are projected to become more prominent in the labor force of tomorrow (Lambert, 1999; Rayman & Bookman, 1999). Thus, a comprehensive picture of the current distribution of work–family spillover across all workers is of profound practical utility because it would provide a mechanism for policy makers to make informed decisions about the relative need and corresponding provision of work–family benefits. By being able to target those subgroups of workers with the greatest need, practitioners responsible for addressing work–family issues would be more effective. In short, a population-level perspective would provide practitioners with a picture of the current needs of different subpopulations of workers and insight into what might be expected by the labor force of tomorrow.

Research examining the work–family experiences of a broader cross-section of workers is also of notable theoretical value. Many concepts in contemporary work–life theory, such

as family role salience, family structure, and job demands (Barnett, 1999; Pleck, 1995), are deeply embedded in life course location and social status. To the extent that most workers are confronted with work–family issues (Galinsky, Bond, & Friedman, 1993), these theoretical concepts may require refinement or qualification. Moreover, a broader perspective also serves as an important complement to more intensive small-scale studies of work and family life by creating a contrast and context within which to theorize about work–family linkages.

The primary goals of this study were to describe the work–family experiences of the adult labor force, both generally and within specific demographic subgroups, and to examine the sociodemographic predictors of work–family spillover.

Empirical and Theoretical Background

Previous Research

Work–family linkages. Spillover, or the extent to which participation in one domain (e.g., work) impacts participation in another domain (e.g., family), is a major linkage between work and family in contemporary research (Pleck, 1995). Spillover reflects two relatively distinct sets of concepts. One set of concepts represents negative spillover between work and family and is most frequently characterized by various types of work–family conflict or interference (Greenhaus & Beutell, 1985; Small & Riley, 1990). Co-occurring negative events, such as stressors, on the same day in multiple domains (Bolger, DeLongis, Kessler, & Wethington, 1989), as well as the transmission of attitudes or moods from one domain to another (Bolger et al.; Repetti, 1994; Repetti & Wood, 1997; Williams & Alliger, 1994) or from one person to another (Almeida, Wethington, & Chandler, 1999; Repetti, 1989) also have been viewed as forms of negative spillover. In all cases, researchers have been encouraged to recognize that negative spillover from work to family is related to, but distinct from, negative spillover from family to work (Allen, Herst, Bruck, & Sutton, 2000; Frone, Yardley, & Markel, 1997). Another, more recent set of concepts represents positive spillover between work and family, such as resource enhancement (Kirchmeyer, 1992a) and work–family success or balance (Milkie & Peltola, 1999; Moen & Yu, 1999). Previous research also has indicated that negative forms of spillover are related, yet distinct from positive spillover (Grzywacz & Marks, 2000).

Population studies of work–family spillover. Presently there is a paucity of comprehensive, population-level studies of work–family spillover available. A large body of studies examines var-

*An earlier version of this paper was presented at the Annual Conference of the National Council on Family Relations, Minneapolis, Minnesota, November 10–13, 2000. This research project began while the lead author was affiliated with the University of California at Irvine Department of Psychology and Social Behavior and received support from a National Institute of Mental Health Post-Doctoral Traineeship (MH19958). The research was also supported by grants to D. M. A. from the Alfred P. Sloan Foundation, the MacArthur Foundation Research Network on Successful Midlife Development, and The National Institute on Aging (AG19239).

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Key Words: family life course theory, work–family spillover, work, family stress.

ious aspects of spillover; however, these studies have relied on samples of highly professional individuals with children in dual-earner couples (Kossek & Ozeki, 1998; Rayman & Bookman, 1999). Although these studies offer valuable insight into those families that typically report the highest levels of work–family strain (Kossek & Ozeki; Galinsky et al., 1993; Hughes & Galinsky, 1994), they provide less understanding of the needs and challenges faced by childless adults and others caring for aging parents (Marks, 1996; National Alliance for Caregiving & American Association of Retired Persons [NAC/AARP], 1997), single-parent families (DeBord, Canu, & Kerpelman, 2000) working nonstandard hours, and other contingent or nonprofessional workers (Christensen, 1998).

The National Study of the Changing Workforce (NSCW; Galinsky et al., 1993; Bond, Galinsky, & Swanberg, 1998) does provide data that allow comprehensive between-person comparisons in work–family spillover. Unfortunately, the NSCW only assessed conflict between work and family; therefore, the results from studies using these data can only inform policies designed to minimize negative spillover between work and family, and they provide little insight into how to stimulate work–family integration (Barnett, 1999; Greenhaus & Parasuraman, 1999). NSCW data also are limited by its self-report survey design. Although several measures of perceived work–family conflict have been validated in previous research (Carlson, Dacmar, & Williams, 2000; Netemeyer, Boles, & McMurrian, 1996), self-report items are subject to various sources of measurement error that may lead to inflated, conflicting, or otherwise erroneous results (Allen et al., 2000; Schwarz, 1999).

Other approaches to studying work–family spillover. Diary studies allow alternative conceptualizations and operationalizations of work–family spillover that attenuate different types of measurement error. Although also reliant on self-report data, researchers have used co-occurring stresses or the transmission of stress across life domains as more objective indicators of negative spillover (Bolger et al., 1989; Larson & Almeida, 1999; Repetti, 1994). Daily diary data also are believed to provide more reliable and valid information about daily stresses and subsequent strategies for coping because the time interval between the experience of an event and the report of it is shorter (Tennen, Affleck, Armeli, & Carney, 2000). Given their demands, daily diary studies have been limited to specific professional groups (e.g., lawyers, air traffic controllers; Bolger et al.; Repetti) or to discrete organizations. More studies are needed that employ diary or short-term repeated-measure designs to facilitate a broader understanding of the linkages between work and family and to further validate the use of self-report items (Allen et al., 2000; Greenhaus & Parasuraman, 1999).

Theoretical Framework and Hypotheses

Family life course theory, with its central focus on the importance of the temporal and social structural context (Bengtson & Allen, 1993), provides a valuable framework for examining work–family spillover among working adults. Two concepts related to the temporal context are particularly meaningful in population-level studies of work–family spillover. Accumulation of experiences, skills, and personal expertise over time (i.e., ontogenic development) would presumably promote greater integration of work and family (Greenhaus & Callanan, 1994). Individuals age in tandem with other family members, creating “generational events” that can be characterized by unusually high

levels of strain or burden. For example, midlife workers may be simultaneously confronted with growing job responsibilities, circumstances surrounding child rearing, and obligations to aging parents (“the sandwich generation;” Zal, 1992). Based on assumptions surrounding the temporal context of the family life course theory and previous research, we hypothesized that older workers would report a higher level of positive spillover between work and family. It was hypothesized also that negative spillover between work and family and the prevalence of work and family stress would increase across adulthood through midlife and then decline in the later stages of workforce participation as children are launched and parents die.

Family life course theory also emphasizes the importance of an individual’s location (within the context of the family) in socially structured status hierarchies and corresponding social inequalities (Bengtson & Allen, 1993). For example, women are frequently found to shoulder a disproportionate amount of family and household responsibilities in contrast to men (for a recent review, see Mikula, 1998), and they are more likely to be employed in “bad jobs” (Kalleberg, Reskin, & Hudson, 2000) that may not provide work–family benefits (Christensen, 1998). Similarly, racial minorities, the poorly educated, and those with modest economic resources typically face a disproportionate amount of life stress, and they generally have fewer social resources for coping with those stresses (Clark, Anderson, Clark, & Williams, 1999; House et al., 1990; Turner & Marino, 1994). Based on assumptions around the social structural context of the family life course and previous research, we hypothesized that women, Blacks, those with less education, and those with the lowest level of earnings would report the highest levels of negative spillover between work and family the greatest prevalence of co-occurring work and family stress, and the lowest level of positive spillover between work and family.

Given projections anticipating growth of contingency work in service jobs (U.S. Department of Labor, 1999a) and previous research demonstrating that contingent workers have less access to work–family policies (Christensen, 1998), we examined whether there are differences in work–family spillover among service workers compared with individuals working in other types of occupations. We also examined differences in work–family spillover by marital and parental status, including age of the child(ren), because these structural characteristics of the family provide additional indicators of family life course location that likely condition the dynamics between work and family (Moen & Yu, 1999).

Finally, to the extent that the transmission of stress between work and family is one observable manifestation of negative spillover (Pleck, 1995), we hypothesized that a higher level of self-reported negative spillover between work and family would be associated with greater odds of experiencing various combinations of work and family stress. However, because negative and positive spillover between work and family are relatively independent of each other (Grzywacz & Marks, 2000; Kirchmeyer, 1992a), we hypothesized that positive spillover between work and family would not be associated with the prevalence of work and family stress.

In summary, work–family research employing representative samples and diverse methods of conceptualizing and operationalizing different linkages between work and family is needed. Our overarching goal was to begin to address these limitations using data from two affiliated nationally representative studies employing different methodologies. Specifically, this

study (a) explored the distribution of work–family spillover across the population and (b) examined the relation between different types of spillover between work and family, using self-report scales and measures of work–family spillover constructed from self-report data of daily stressful experiences obtained through telephone interviews.

Method

Data and Sample

We merged data from the National Survey of Midlife Development in the United States (MIDUS) and the National Study of Daily Experiences (NSDE), conducted under the auspices of the John D. and Catherine T. MacArthur Foundation Network for Successful Midlife Development. The original purpose of the MIDUS and related studies was to examine the predictors and consequences of successful aging in the areas of physical health, psychological well-being, and social responsibility. MIDUS respondents are a general U.S. population sample of noninstitutionalized adults aged 25 to 74, selected through random-digit dialing procedures, who participated in a telephone interview and who completed two mail questionnaires ($n = 3,032$).

Respondents in the NSDE were randomly selected from the MIDUS sample and received \$20 for their participation in the project. Over the course of 8 consecutive evenings, respondents completed short telephone interviews about their daily experiences. On the final evening of interviewing, respondents also answered several questions about their previous week. Data collection spanned an entire year (March 1996 to April 1997) and consisted of 40 separate “flights” of interviews, with each flight representing the 8-day sequence of interviews from approximately 38 respondents. The initiation of interview flights was staggered across the day of the week to control for the possible confounds between day of study and day of week. Of the 1,242 MIDUS respondents who were contacted, 1,030 agreed to participate, yielding a response rate of 83%. Respondents completed an average of seven of the eight interviews, resulting in 7,221 daily interviews. Of the total number of individuals who participated in each study, only respondents who were employed at the time of survey (MIDUS) or interviews (NSDE) were included in this study (MIDUS, $n = 2,130$; NSDE, $n = 741$).

Table 1 describes the characteristics of the primary MIDUS sample and the NSDE subsample from which it was drawn. Although the NSDE had slightly more women and higher levels of technical sales and administrative and service workers, the two samples had similar distributions for each of the other sociodemographic characteristics. Respondents for the present analysis on average were 42 years old ($SD = 11.17$). About 10% of both samples were Black, and the modal level of education was a high school or general equivalency diploma (GED). At the time of the studies, 68 to 70% of respondents from both samples were married, and 46 to 48% of respondents had children under the age of 18. The average family income was between \$45,000 and \$47,000, and the highest proportion of workers in both samples reported working 35 to 45 hours per week ($M = 43$, $SD = 15$).

Measures

Dependent variables. The MIDUS contained scales measuring four distinct dimensions of the work–family spillover. Negative spillover from work to family (e.g., How often in the past

Table 1
Descriptive Statistics for Sociodemographic Variables

Demographic Characteristics	MIDUS		NSDE	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Age (years)	42.16	11.17	42.46	11.38
Gender (female = 1)	52%		56%	
Race/ethnicity (Black = 1)	11%		10%	
Education ^a	2		2	
Household earnings (\$)	46,601	35,836	45,450	33,474
Marital status				
Currently married	68%		71%	
Separated	3%		3%	
Divorced	14%		12%	
Widowed	3%		3%	
Never married	12%		12%	
Parental status				
No children	12%		12%	
Oldest child <6 years	20%		19%	
Oldest child 6–18 years	27%		29%	
Oldest child >18	42%		40%	
Hours worked per week	43.31	15.25	42.77	15.62
Occupation				
Manager or professional	33%		32%	
Technical sales, administration	30%		33%	
Service	10%		12%	
Farming, forestry, fishing	2%		2%	
Precision production	11%		10%	
Missing or cannot classify	3%		2%	

Note: Statistics are based on weighted data. MIDUS = National Survey of Midlife Development in the United States; NSDE = National Study of Daily Experiences.

^aModal educational category for these samples (i.e., high school graduate or general equivalency diploma). Means for dichotomous indicators of gender, race/ethnicity, marital status, parental status, and occupations are percentages (may not sum to 100% due to rounding).

year has “your job reduced the effort you can give to activities at home?”; $\alpha = .82$), and negative spillover from family to work (e.g., How often in the past year have “responsibilities at home reduced the amount of effort you can devote to work?”; $\alpha = .79$) were each assessed by averaging four items (Grzywacz & Marks, 2000). Positive spillover from work to family (e.g., How often in the past year have “the things you do at work helped you deal with personal and practical issues at home?”; $\alpha = .74$) and positive spillover from family to work (e.g., How often in the past year has “talking with someone at home helped you deal with problems at work?”; $\alpha = .70$) were assessed by averaging three items for each latent construct (Grzywacz & Marks). Response categories for the work–family spillover items ranged from 1 (*never*), to 5 (*all of the time*).

In the NSDE, daily work and family stresses were assessed through a semistructured Daily Inventory of Stressful Events (Almeida, Wethington, & Kessler, 2001). The inventory consisted of a series of stem questions asking whether certain types of daily stressors had occurred in the past 24 hours, along with a set of interviewer guidelines for probing affirmative responses. One stem question specifically focused on work stressors (“Since this time yesterday, did anything happen at work—other than what you’ve already mentioned—that most people would consider stressful?”). Another stem question was directed at home stressors (“Since this time yesterday, did anything happen at home—other than what you’ve already mentioned—that most people would consider stressful?”). Open-ended information for

each reported stressor was tape recorded and then transcribed and coded for several characteristics. This investigator-based approach allowed us to distinguish between a stressful event (e.g., conflict with spouse) and the affective response to the stressor (e.g., crying or feeling sad). Another benefit of this approach was its ability to identify overlapping reports of stressors. In our study, approximately 5% of the reported stressors were discarded because they were either solely affective responses or they were identical to stressors that were previously described on that day. Approximately 20% (800 events) of the stressors were rated by two coders. The interrater reliability for investigator ratings ($Kappa$) ranged from .66 to .95 across all of the codes.

Three additional measures of negative spillover between work and family were constructed from affirmative reports of daily stresses: (a) the proportion of days the respondent reported both a work- and family-related stressor (i.e., the co-occurrence of work and family stress), (b) the proportion of days the respondent reported a family-related stressor given a work-related stressor the day before (i.e., work-to-family stress), and (c) the proportion of days the respondent reported a work-related stressor given a family-related stress the day before (i.e., family-to-work stress).

Exogenous variables. The analyses make use of several sociodemographic variables including age (25–34, 35–44, 45–54, 55–64, 65–74), gender, race/ethnicity (Black versus non-Black), marital status (currently married, separated, divorced, widowed, and never married), parental status (no children, oldest child < age 6, oldest child aged 6–18, and oldest child > age 18), educational attainment (less than a high school degree, high school degree or GED, some college or technical training, and college graduate), household earnings (quartiles), hours worked per week (< 20, 20–34, 35–45, and > 45), and occupation (grouped in accordance with the Classified Index of Industries and Occupations; U.S. Department of Commerce, 1982).

Analysis. Bivariate (e.g., one-way ANOVA, t tests) and multivariate (e.g., regression) techniques were used to explore whether mean levels of different types of work–family spillover varied by age group, gender, race, educational attainment, marital status, parental status, hours worked per week, household earning, and occupation. Then Pearson product–moment correlation analyses and logistic regression were used to explore the association between self-reported work–family spillover and the occurrence of work and family related stresses.

Results

Table 2 presents the means and standard deviations for each of the work–family spillover and work–family stress items for the entire sample. A series of one-way ANOVAs and t tests were conducted to examine the bivariate association between each of the sociodemographic characteristics and each type of work–family spillover. Several significant bivariate differences were observed for age, race/ethnicity, marital status, parental status, education, household earnings, hours worked per week, and occupation. The bivariate associations are not described in detail here, however, because marital and parental status, educational attainment, and hours worked per week are not equally distributed in the population by age, gender, and race/ethnicity (see U.S. Census Bureau, 1997a, 1997b; U.S. Department of Labor, 1999a, 1999b). Therefore, the results of the multivariate models examining the adjusted effects of each of these characteristics are presented and described.

Table 2
Descriptive Statistics of Work–Family Variables

Work-Family Variables	MIDUS		NSDE	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
MIDUS self-report				
Negative spillover from work to family	2.62	.74		
Positive spillover from work to family	2.62	.84		
Negative spillover from family to work	2.10	.67		
Positive spillover from family to work	3.42	.83		
NSDE daily diary ^a				
Co-occurrence of work and family stress			.08	.15
Work stress the day before family stress			.06	.15
Family stress the day before work stress			.07	.15

^aMeans represent the percent of days a work–family stressor was reported during the interview period. Statistics are based on weighted data. MIDUS = National Survey of Midlife Development in the United States; NSDE = National Study of Daily Experiences.

The results from unweighted multivariate ordinary least squares regression analyses of the work–family spillover items in the MIDUS are presented in Table 3. Results from unweighted analyses are reported because factors used in oversampling were included in all analyses, and the overall pattern of findings were similar for both weighted and unweighted analyses (Winship & Radbill, 1994). Next, continuous measures of age, education, and hours worked per week were used in the multivariate analyses to avoid overspecifying the model. Moreover, an age-squared term was included in the models for hypothesis testing. Table 3 also reports the results from the most parsimonious models for which marital status, parental status, and household earnings were collapsed into indicator variables. Subsequent sensitivity analyses (not shown), comparing the reduced model to the full model that used dummy variables for each category of the variables described in the methods section, indicated that this procedure did not dramatically alter the parameter estimates or the explanatory power of the models.

The Temporal Context of Work–Family Spillover

Table 3 provides support for the study hypotheses linking work–family spillover to life course location. Independent of family structure (e.g., presence and age of children, marital status) and occupational characteristics (e.g., hours worked per week, occupation), advancing age was associated with more positive spillover from work to family. Also, partially supporting our hypothesis, the shape of the relationships between age and negative spillover between work and family (both work to family and family to work) was curvilinear as evidenced by small but significant age-squared parameter estimate.

Figure 1 depicts the mean levels of each type of perceived negative spillover between work and family by age grouping, adjusting for the sociodemographic characteristics considered in this study and using weighted data to generate population estimates. There were no significant differences in the mean levels of negative spillover from work to family between workers aged 25 to 34, 35 to 44, and 45 to 54. Negative spillover from work to family was significantly lower for workers aged 55 to 64 than workers aged 25 to 34 and 35 to 44. Workers aged 65 to 74 had, on average, the lowest level of negative spillover from work to family than individuals in any another age group except workers aged 55 to 64. In terms of negative spillover from family to work, the adjusted means between workers aged 25 to 34 and those aged 35 to 44 were not significantly different. The 45- to

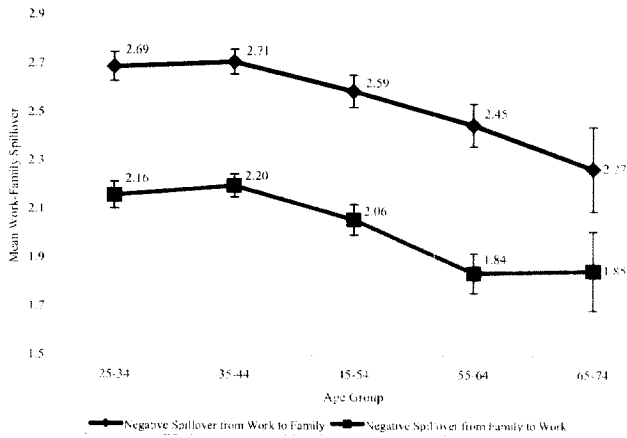


Figure. Average work-family spillover* and 95% confidence intervals by age group.

Note: Source: National Survey of Midlife Development in the United States (1995). *Mean adjusted for gender, race, education, marital status, parental status, household earnings, hours worked per week, and occupation.

the effect of workers' social structural contexts on work-family spillover, however. Women actually reported a higher level of positive spillover from work to family than did men. In contrast to non-Blacks, Blacks reported less negative spillover between work and family (in both directions) and more positive spillover from family to work. Education was only associated with one type of work-family spillover and that association contradicted our hypotheses: less, rather than more, education was associated with less negative spillover from work to family. Respondents in the third quartile of earnings reported significantly less positive spillover from work to family than individuals in the top quartile, thereby partially supporting our hypotheses. However, there was no support for our hypothesis that those with the lowest earnings would be disadvantaged either in terms of more negative spillover or less positive spillover between work and family. Furthermore, there was no support for the social structural hypotheses when examining co-occurring work and family stress outcomes.

Results in Table 3 also indicate differences in work-family spillover by parental and marital status. Respondents with a child under the age of 6 and those with a child aged 6 to 18 ($b = .17$, $SE = .04$, $p \leq .001$) had a higher level of negative spillover from family to work than did individuals without children. Moreover, having a child aged 6 to 18 was associated with significantly less positive spillover from family to work in contrast to being childless. Individuals who were separated reported more negative spillover from family to work in contrast to those who were currently married. Meanwhile, respondents who were currently married had higher levels of positive spillover from family to work than individuals who were separated, divorced, widowed, or never married. There was no evidence indicating that co-occurring work and family stress varied by either parental status or marital status.

There were some statistically significant differences in spillover from work to family by occupation. In contrast to workers in service jobs, managers and professionals reported more negative spillover from work to family. Similarly, the odds of reporting a family stress the daily following a work stress was greater for managers and professionals than individuals in ser-

Table 4
Unweighted Logistic Regression Estimates of the Association Between Multiple Dimensions of Work-Family Spillover and the Incidence of Work-Family Stress (NSDE)

	Co-Occurrence of Work and Family Stress	Work Stress Day Before Family Stress	Family Stress Day Before Work Stress
Dimensions of Work-Family	<i>b</i> (SE)	<i>b</i> (SE)	<i>b</i> (SE)
Work to family spillover			
Negative	.48** (.16)	.49** (.17)	.56*** (.17)
Positive	.11 (.12)	-.04 (.13)	-.06 (.14)
Family to work spillover			
Negative	.10 (.17)	.44* (.19)	.39* (.19)
Positive	-.11 (.11)	.01 (.13)	-.10 (.13)

Note: Models adjust for the effects of age, gender, race/ethnicity, marital and parental status, household earnings, and hours worked per week. * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$ (two-tailed).

vice jobs (odds ratio = 3.75: 1.00, $p \leq .01$). Individuals in service jobs also reported more positive spillover from work to family than those in technical sales or administrative occupations as well as operators or fabricators, but service workers reported less of this spillover than individuals in the farming, fishing, or forestry occupations.

In summary, this study finds strong support for the family life course hypotheses linking the temporal context of the worker to her or his perceived level of work-family spillover as well as the occurrence of work and family-related stresses. By contrast, there was only limited support for hypotheses linking work-family spillover to various indicators of workers' social structural contexts.

Work-Family Spillover and Co-Occurring Work and Family Stress

Finally, we considered the empirical association between work-family spillover, assessed using multi-item scales, with work-family stress, assessed from daily interview data. The bivariate correlation between self-reported forms of negative spillover between work and family and the work-family stress measures was modest (i.e., largest magnitude was $r = .22$). As hypothesized, positive spillover between work and family was not significantly associated with any of the work-family stresses. Adjusting for age, both negative spillover from work to family and negative spillover from family to work were robust predictors of the incidence of work-family stresses (see Table 4). Increasing negative spillover from work to family by one standard deviation increased the odds of reporting a stressful event at work and in the family on the same day by 61%. Holding everything else constant, increasing both negative spillover from work to family and negative spillover from family to work by one standard deviation increased the risk of reporting a work stress following a family stress by 74% and 47% respectively. Similarly, the odds of reporting stress in the family the day after reporting a stress at work increased by a factor of 63% and 55%, respectively, for each increase of 1 standard deviation in negative spillover from work to family and negative spillover from family to work.

Discussion and Implications for Practice and Research

Using family life course theory, we tested hypotheses about the distribution of various forms of work–family spillover in the adult labor force using data from two affiliated nationally representative studies. Several patterns emerged from the analyses, including (a) age-related associations across nearly all forms of work–family spillover; (b) clear differences in subjectively reported levels of negative and positive spillover between work and family, coupled with an absence of a parallel distributional pattern of work–family stresses; and (c) a relatively modest, albeit highly significant, effect of self-reported negative spillover between work and family on experiences of work–family stress.

The age-related patterns of positive and negative spillover between work and family support the importance of ontogenetic and generational time highlighted by family life course theory. Although true aging effects can only be inferred from longitudinal studies, the pattern of associations between advancing age and higher levels of positive spillover from work to family are consistent with the idea that accumulated experiences and expertise in the workforce (i.e., ontogenetic development) will enhance the fit between work and family. This interpretation also parallels another recent life course study of work and family, suggesting that the work–family experiences of workers are the result of joint decisions over time made by the worker and her or his family members to maximize work and family integration (Han & Moen, 1999).

However, the simultaneous aging (development) of the workers and her or his family members also appears to contribute to a stable trajectory (Han & Moen, 1999) of negative spillover between work and family that does not abate until after midlife. The absence of statistically significant differences in negative spillover between work and family and work and family stresses across young adulthood and midlife in these cross-sectional data suggests that negative spillover is not limited to workers with young children. Indeed, once it is recognized that the apparent drop in negative spillover between work and family could reflect self-selection out of work (Warr, 1992) by highly stressed elders (e.g., those providing care to an aging spouse or parent), it becomes clear that each generation of worker is confronted with circumstances that can contribute to a poor fit between work and family (Greenhaus & Callanan, 1994). Unfortunately, until subsequent longitudinal work is completed, we cannot rule out the possibility that these associations between age and negative spillover between work and family are due to cohort or period effects rather than aging.

It is interesting that our results contradicted several study hypotheses regarding the distribution of work–family spillover by social structural context. For example, Blacks were found to have lower, rather than higher, levels of both types of negative spillover between work and family and higher levels of positive spillover from family to work. Perhaps employed Blacks receive more instrumental assistance from extended family than Whites for handling family-related demands (e.g., sick child, after school child care; Benin & Verna, 1995), thereby contributing to less negative spillover between work and family. Or perhaps Blacks are less personally involved in their work (Bailey, Wolfe, & Wolfe, 1996) or work in psychologically less stressful jobs than Whites (in these data, Blacks reported significantly lower levels of job demands), which may lead to less negative spillover be-

tween work and family (Frone et al., 1997; Gzywacz & Marks, 2000). Although the specific results in this study contradicted our hypothesis regarding the importance of social structural location, they are consistent with several themes in family life course theory emphasizing the importance of social context (Bengtson & Allen, 1993) in both work and family that contribute to the meanings that individuals assign to work and family experiences such as perceptions of spillover.

Family life course theory also provides one perspective for viewing the disparate pattern of results related to self-reported perceptions of negative spillover between work and family and the occurrence of work and family stress. It is interesting that the specific population frequently studied in work–family research and most commonly targeted for work–family programs (i.e., well-educated professionals with children working in professional or managerial positions) reported the highest level of negative spillover from work to family, yet these same individuals did not have a higher prevalence of work and family stresses reported in their daily lives (although managers did report more work-to-family stress than service workers). Perhaps the attention given to work–family issues over the past several years has created a social and cultural context that encourages certain workers to be more critical of and sensitive to their own abilities and the environmental pressures when attaching meaning to work and family experiences (for parallel discussion see Barsky, 1988). This is not to suggest that awareness and policy attempts to help working adults manage work–family conflict have been misguided; rather, when addressing issues related to work and family, the focus may have been too one sided.

Positive spillover between work and family, for example, has been largely ignored in empirical research and policy despite consistent evidence indicating that most working adults believe that the benefits of combining work and family outweigh the burdens or strains (see Barnett, 1998). Positive spillover, or work–nonwork integration (Greenhaus & Parasuraman, 1999), is correlated with greater job commitment, performance, and satisfaction (Kirchmeyer, 1992b; Orthner & Pittman, 1986) as well as better physical and mental health (Grzywacz, 2000), yet ideas surrounding the competing nature of work and family persist. Perhaps greater attention is needed in research, policy, and public awareness regarding how family (and other nonwork activities) can benefit work and vice versa.

We also found that self-reported negative spillover between work and family exerted small but significant effects on the incidence of work–family stress 1 year later. These results are noteworthy because they provide evidence of criterion validity for self-reported measures of negative spillover between work and family. The modest magnitude of these associations suggests, however, that self-reports on survey items about work–family spillover and daily reports of stressful work and family experiences tap different phenomenon. Perhaps the self-report items tap the overall quality of fit between work and family (Barnett, 1998), whereas the work–family stresses tap specific episodes or processes (Greenhaus & Parasuraman, 1999) that give rise to individuals' evaluations of the quality of fit.

Limitations

Although this study offers an important and unique perspective of the work–family experiences of the adult labor force, there are some notable limitations. Whereas the combined MIDUS–NSDE data could be viewed as longitudinal, the MIDUS data alone are cross-sectional; therefore, for some of the asso-

ciations, the direction of causality remains unclear. As mentioned earlier, the age effects could reflect some age-related changes that allow individuals to integrate work and family more effectively, or they could reflect a survivor effect whereby those who were having difficulty managing work and family self-select out of the labor force. These data permitted us to examine racial differences for Blacks only, yet Hispanics and Asians are the fastest growing segment of the adult labor force (U.S. Department of Labor, 1999a). Additional research of these racial groups is needed to understand and anticipate the work-family related needs of these workers. Finally, the daily diary data was limited to workers' experiences over an 8-day period. This may explain the relatively low correlation between these data and the self-reported measures and the dissimilar pattern of results in the multivariate models between the self-report and daily diary outcomes. However, although an 8-day data collection period may not adequately capture the work-family experiences of *individual* respondents, it should adequately capture the experiences of *groups* of respondents given the large sample, the correspondingly large number of interview days, and the fact that random groups of individuals were interviewed throughout the year. Nonetheless, more extensive daily diary data for a longer period might generate results that are more similar to the self-reported results.

Implications for Research and Theory

This study raises several important implications for future research and theory building. First, additional research needs to unpack the associations between age and work-family spillover. It is important to identify those factors that account for (mediate) the association between age and positive spillover so that interventions and policies can be designed to facilitate work-family enhancement that may enhance employee performance and well-being (Grzywacz, 2000; Kirchmeyer, 1992b). Also, it is important to understand why the patterns of our results were different for measures of perceived negative spillover in contrast to work- and family-related stresses. If the divergent pattern of results reflects contextually based social meaning ascribed to work and family experiences, different measures of perceived spillover might be warranted for different populations. Finally, how do positive and negative spillover fit together to shape the overall quality of fit between work and family (Barnett, 1998)? Consistent with the idea that positive emotions are primarily important when negative situations arise (Fredrickson, 1998), perhaps experiences and evaluations of positive spillover between work and family are only important when individuals are confronted with work-family stresses or negative spillover. In general, the role of positive spillover and the beneficial effects of age in terms of self-evaluations of work-family spillover raises important questions about possible differential exposure and reactivity models of work and family events.

Implications for Practitioners

Several noteworthy implications for practitioners also emerge from these findings of work-family experiences. First, our results make clear that policies and programs addressing negative spillover between work and family are required throughout most of the working years, because little difference was seen in the work-family experiences of workers between the ages of 25 and 54. However, the factors affecting experiences of negative spillover for different generations of workers are presumably different (e.g., responsibilities to developing children versus re-

sponsibilities to aging parents or other family); consequently, policies and programs require flexibility to meet the diverse needs of different aged workers. For example, family service agents can form partnerships with businesses to provide programs and services to employees related to both child-care and elder-care resources and referrals, as well as parenting programs such as "surviving the teen years" to meet the work-family challenges of different workers.

In addition, these analyses provide clear guidance for practitioners targeting different types of work-family issues. For example, programs to lessen negative spillover from family to work might be of most relevance to workers with young children (e.g., care options for workers whose children are sick), whereas programs to reduce negative spillover from work to family may need to target more highly educated managers or professionals regardless of parental status (e.g., stress management programs).

Finally, these analyses highlight the importance of considering multiple aspects of work-family linkages when designing interventions and policies. For example, policies that shorten the workweek may reduce negative spillover between work and family, but our results also suggest that they will reduce positive spillover. Such a policy may not realize its full potential for the employer or the worker because the magnitude of the mental health effects for positive and negative spillover are comparable in many cases (Grzywacz, 2000). This suggests that practitioners need to target interventions that reduce negative spillover and promote positive spillover.

Although other nationally representative studies of work-family spillover have been done (Bond et al., 1998), this is the first study to use different types of data to comprehensively explore the distribution of multiple types of work-family spillover across a wide range of sociodemographic characteristics. Individuals' evaluations of the overall quality of fit between work and family were found to consistently differ by multiple demographic characteristics, particularly age. However, actual experiences of work and family-related stress did not systematically differ between groups of individuals. This interesting paradox raises several interesting and important theoretical, methodological, and policy issues that require further research.

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