

Family Migration and Career Mobility: Gender Differences in Occupational Context

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Introduction

In contrast to the positive influence long-distance mobility has on the career development of married men, for married women family migration is associated with low rates of employment, reductions in hours worked and depressed earnings growth (Bailey and Cooke 1998; Boyle et al. 2001; Boyle, Halfacree, and Smith 1999; Bruegel 1996; Bruegel 1999; Cooke and Bailey 1999; Duncan and Perrucci 1976; Jacobsen and Levin 1997; Jacobsen and Levin 2000; Lichter 1980; Lichter 1982; Long 1974; Marwell, Rosenfeld, and Spilerman 1979; Maxwell 1988; Mincer 1978; Morrison and Lichter 1988; Shihadeh 1991; Spitze 1984). The well-documented sex gap in the career consequences of migration is most often attributed to women's secondary role in family migration decisions and, consequently, to their greater likelihood of experiencing "tied" migration, i.e. migration that is motivated by their husband's career needs (Mincer 1978). This gender role explanation of sex differences focuses on gender inequality within the family and ignores the potential influence of structural gender inequality within the labor market. In this paper we specify and test a competing structural explanation that attributes gender differences in the returns to migration to occupational sex segregation. By incorporating measures of relevant occupational characteristics that have been neglected by prior research, we (1) provide a more rigorous test of the family gender role explanation and (2) develop a more complete model of the relationship between migration and career mobility.

We use individual- and family-level data from the *Panel Study of Income Dynamics* (PSID), occupation-level data from the *March Current Population Surveys* (CPS) and U.S. Decennial Censuses 5% Public Use Micro Sample (PUMS), and conditional difference-in-differences models to estimate the career consequences of family migration in the context of occupational characteristics. We expect the findings to support the hypothesis that the sex gap in the effect of migration on career progress is partly attributable to sex differences in occupational characteristics, i.e., to occupational sex segregation. The results will show that ignoring the occupational context of family migration has led to an overestimation of the influence of within-family inequality on sex differences in the relationship between family migration and career progress.

Theoretical Focus: Occupational Characteristics, Migration, and Career Mobility

The structural characteristics of occupations influence the association between migration and career development. Occupational labor market characteristics may influence the importance of geographic mobility for promotion, the frequency of career-related geographic moves, and the spatial distance of each move. Occupations with high rates of long-distance migration are characterized by decentralized work settings, relatively high levels of worker authority and independence, and labor markets that are national, i.e. that have strong cross-country collegial connections and active nation-wide occupational contact networks such as professional organizations (Ladinsky 1967). For individuals involved in high mobility labor markets, mobility can be used to compete for better positions, to accumulate experience rapidly, and to skip rungs on the promotion ladder (Markham and Pleck 1986).

The occupational characteristics that foster the association between migration and career mobility are likely, however, to be unequally distributed by sex. Because a high degree of occupational sex

segregation persists in the U.S., women and men tend to work in separate sets of occupations that have distinct structural characteristics (Bianchi 1995; Reskin 1993). Women disproportionately are employed in service occupations that are more geographically ubiquitous, draw workers from local labor markets, and tend to lack extended occupational ladders that define a “career.” In addition, female-dominated jobs tend to pay lower average wages, to be lower in prestige and to offer less occupational autonomy and authority than do male-dominated occupations (Spain and Bianchi 1996). These structural characteristics are associated with low levels of work-related migration (Ladinsky 1967), but they are also associated with limited attainment of lifetime earnings and occupational prestige, frequent job and employer changes, and discontinuous labor force participation. So while occupational sex segregation may produce sex differences in the distribution of opportunities for work-related migration and its rewards, it also produces sex differences in labor force outcomes. It is necessary, therefore, to take occupational characteristics into account in order to accurately estimate the sex differences in the influences of family migration on career mobility.

Since occupational characteristics may influence selection into migration as well as the influence of migration on career outcomes, the failure to control for the occupational context of family migration introduces two potential sources of bias to the findings of previous research: (1) a selection effect (i.e. individuals who work in occupations that offer “migration bonuses” are more likely to migrate) and (2) omitted variable bias (i.e., by failing to control for variables that are both associated with the outcome and unevenly distributed by sex).¹ If not corrected, both sources of bias would lead to biased estimates of the effect of migration on career. A few researchers estimating the influence of migration on employment outcomes have adjusted for selection effects (Cooke and Bailey 1996; Cooke and Bailey 1999; Krieg 1997), but they do not include detailed measures of occupational characteristics in the estimation of either the selection effect or the returns to migration. Most researchers examining the impact of migration on career outcomes have ignored selection effects, and have either included only basic controls for occupation and/or industry (Boyle et al. 2001; Bruegel 1999; Jacobsen and Levin 1997; Lichter 1983), analyzed only one occupation (e.g. university faculty) (Deitch and Sanderson 1987), or excluded occupation controls altogether (Bruegel 1996; Shihadeh 1991; Spitze 1984). Those studies that do control for occupation/industry use measures that are too broad to tap the aspects of jobs that influence the relationship between geographic mobility and career advancement.

To illustrate the implications of this omission, consider the potential bias introduced by failing to control for the unequal distribution of one occupational characteristic: geographic ubiquity. First, this occupational characteristic may influence migration status: Women may be more likely than men to experience tied migration partly because the greater geographic ubiquity of female-dominated jobs means they can more easily replicate their employment after a move. Second, this occupational characteristic may influence the association between migration and career progress: Since geographical ubiquity makes jobs relatively easy to replace in any location, the experience of tied migration may have less significant effects on career progress in these ubiquitous occupations.

¹ There are of course other types of “selection” biases that we do not address in this paper. For instance, women in female-dominated occupations may differ from women in male-dominated occupations with respect to motivation or career commitment, factors which may also influence their career progress. Also, individuals who are married may differ from those who are not in important ways. For example, if one partner is so unwilling to move because of the perceived harmful consequences to his/her career, it may lead to divorce (or remaining single). These individuals will not be included in studies like ours that include only married couples.

Women's overrepresentation in geographically ubiquitous jobs thus may depress the estimated effects of migration on women's career progress in analyses that aggregate all occupations (i.e., that fail to control for detailed occupation or labor market characteristics). The estimated effects from aggregated analyses may therefore severely underestimate the negative effects of migration on the career progress of women who are attempting to build careers in male-dominated occupations, or in any occupation where the link between geographical mobility and career progress is relatively strong.

Research Hypothesis

The reasoning of the structural explanation leads us to hypothesize that the effect of family migration on career outcomes will be the same for men and women with the same individual, family, *and* occupational characteristics.

Research Design

Data

We test this research hypothesis using individual-level data from the PSID that has been merged with family-level information from the same source and occupation-level data from the 1980-1995 CPS and the 1980 and 1990 PUMS. All men and women aged 25-60 who resided in married couple families in each annual wave of the PSID between 1981 and 1993 are included in this analysis. Individual-level variables include measures of demographic, employment, and financial characteristics. Family-level variables include measures of family composition and of the spouse's demographic, employment, and financial characteristics, and an indicator of family migration events. Family migration is defined as moves across the boundaries of metropolitan areas² and is assessed for each yearly interval of the panel data by combining self-reports of migration during the year preceding the interview with comparisons of year-specific geographic identifiers of the residential location of each family.

Occupational characteristics are measured using data from the 1980-1995 CPS and the 1980 and 1990 PUMS. The CPS data provide a measure of the demand for, or prevalence of, migration in each occupation (the year-specific proportion of workers who experienced a long-distance migration); a measure of the length of an occupational career ladder (the ratio of the 80th to the 20th percentile of the earnings distribution); and of the relative tightness of the occupational labor market (the standardized year-specific unemployment rate in each occupation).³ We use the 1980 and 1990 PUMS data to calculate occupation-specific indicators of geographic ubiquity. The measure of geographic ubiquity is defined as an index of dissimilarity: it measures the degree to which employment in each occupational category is unequally distributed across metropolitan areas of the U.S. Occupations in which employment is concentrated in relatively few labor markets will have high values on the measure of geographic ubiquity, and occupations that are prevalent in most all areas of the country will have low geographic ubiquity scores. The occupational characteristics derived from the CPS and PUMS are linked to the PSID data by year and occupation for both the individual for whom outcomes are modeled and for his/her spouse.

² More specifically, long-distance migration is coded as either moves between metropolitan areas, moves between metropolitan and non-metropolitan areas, or county-to-county moves for those who did not live in a metropolitan area in either of the adjacent years in each year-to-year comparison.

³ We use a "moving-average" approach for the operationalization of occupational characteristics using the CPS data. Each year-specific measure is based on data from the specified year pooled with data from the previous and following years.

Methods

We use a conditional difference-in-differences (CDID) estimator (Abadie 2003) to model the effects of migration on career mobility broadly defined. Previous research has relied on simplistic measures of career progress that fail to capture the multidimensionality of the concept of “career.” The most common dependent variables in this body of literature is a dichotomous indicator of employment (e.g., Boyle et al. 2001; Boyle, Halfacree, and Smith 1999), although other studies have focused on wage growth as a measure of career success (Jacobsen and Levin 1997; Krieg 1997), or on hours worked as an indicator of employment continuity (Cooke and Bailey 1999). In addition to these traditional economic outcomes, we also model other employment characteristics that are used in the sociological literature as indicators of job quality and career attainment. We analyze change/consistency in six dependent variables: (1) a binary indicator of employment, (2) hours worked, (3) earnings, (4) occupational-industry classification, (5) positional authority and autonomy, and (6) occupational prestige.

The simple difference-in-differences (DID) estimator measures the effect of some event or treatment as the difference between the treated and nontreated in the before-after difference in some outcome. For example, the effect of migration on earnings is estimated as the mean difference between migrants and nonmigrants in their differences in earnings at the start and end of a period of potential migration. The CDID expands the simple estimator to a multivariate context by incorporating independent variables that may generate variation in the before-after difference across population subgroups. A single CDID model can thus include covariates that (1) differentiate movers from non-movers, i.e., selection effects, and (2) influence the relationship between migration and a given outcome.

Our analysis focuses on the difference-in-differences predicted by four hierarchical models (for each dependent variable) that are estimated separately for males and females:

Model 0: baseline model that includes no covariates; comparing across sex-specific models marginal (observed) sex differences

Model 1: Model 0 + individual-level variables (i.e., respondent’s human capital investments)

Model 2: Model 1 + family-level variables (i.e., family structure and spouse’s demographic characteristics)

Model 3: Model 2 + occupation-level variables for respondent and spouse

Expected Results

In the absence of controls, the DID estimate will be greater for men than for women, i.e., moves have a more positive effect on outcomes for men than for women. Since this unadjusted measure captures gender differences in the distribution of individual, family, and occupational characteristics, the successive addition of controls for characteristics measured at each of these levels is expected to reduce the male-female disparity in DID. The addition of occupation-level variables in Model 3 is expected to completely explain the sex gap in the DID, i.e., the effect of migration on career outcomes. Any residual male-female difference in the relationship between migration and career outcomes is interpreted as consistent with the family gender roles explanation. The estimated effects of substantively important covariates measured at the individual, familial and occupational level will be examined and discussed.

References

- Abadie, Alberto. 2003. "Semiparametric Difference-in-Differences Estimators." Unpublished manuscript available at: <http://ksghome.harvard.edu/~abadie/did.pdf>.
- Bailey, Adrian J. and Tomas J. Cooke. 1998. "Family Migration and Employment: The Importance of Migration History and Gender." *International Regional Science Review* 21:99-118.
- Bianchi, Suzanne M. 1995. "Changing Economic Roles of Women and Men." in *State of the Union: America in the 1990s, Volume One: Economic Trends*, edited by R. Farley. New York: Russell Sage Foundation.
- Boyle, Paul J., Tomas J. Cooke, Keith H. Halfacree, and Darren Smith. 2001. "A Cross-National Comparison of the Impact of Family Migration on Women's Employment Status." *Demography* 38:201-213.
- Boyle, Paul J., Keith H. Halfacree, and Darren Smith. 1999. "Family Migration and Female Participation in the Labour Market: Moving Beyond Individual-Level Analyses." Pp. 114-135 in *Migration and Gender in Developed Countries*, edited by P. J. Boyle and K. H. Halfacree. London: Routledge.
- Bruegel, Irene. 1996. "The Trailing Wife: A Declining Breed?" Pp. 235-258 in *Changing Forms of Employment*, edited by R. Crompton, D. Gallie, and K. Purcell. New York: Routledge.
- . 1999. "Who Gets on the Escalator? Migration, Social Mobility, and Gender in Britain." Pp. 86-101 in *Migration and Gender in Developed Countries*, edited by P. J. Boyle and K. H. Halfacree. London: Routledge.
- Cooke, Tomas J. and Adrian J. Bailey. 1996. "Family Migration and the Employment of Married Women and Men." *Economic Geography* 72:38-48.
- . 1999. "The Effect of Family Migration, Migration History, and Self-Selection on Married Women's Labour Market Achievement." Pp. 102-113 in *Migration and Gender in Developed Countries*, edited by P. J. Boyle and K. H. Halfacree. London: Routledge.
- Deitch, Cynthia H. and Susan Walsh Sanderson. 1987. "Geographic Constraints on Married Women's Career." *Work and Occupations* 14:616-634.
- Duncan, R. Paul and Carolyn Cummings Perrucci. 1976. "Dual Occupation Families and Migration." *American Sociological Review* 41:252-261.
- Jacobsen, Joyce P. and Laurence M. Levin. 1997. "Marriage and Migration: Comparing Gains and Losses from Migration for Couples and Singles." *Social Science Quarterly* 78:688-709.
- . 2000. "The Effects of Internal Migration on the Relative Economic Status of Women and Men." *Journal of Socio-Economics* 29:291-304.
- Krieg, Randall G. 1997. "Occupational Change, Employer Change, Internal Migration, and Earnings." *Regional Science and Urban Economics* 27:1-15.
- Ladinsky, Jack. 1967. "Occupational Determinants of Geographic Mobility Among Professional Workers." *American Sociological Review* 32:253-264.
- Lichter, Daniel T. 1980. "Household Migration and the Labor Market Position of Married Women." *Social Science Research* 9:83-97.

- . 1982. "The Migration of Dual-Worker Families: Does the Wife's Job Matter." *Social Science Quarterly* 63:48-57.
- . 1983. "Socioeconomic Returns to Migration among Married Women." *Social Forces* 62:487-503.
- Long, Larry H. 1974. "Women's Labor Force Participation and the Residential Mobility of Families." *Social Forces* 52:342-348.
- Markham, William T. and Joseph H. Pleck. 1986. "Sex and the Willingness to Move for Occupational Advancement: Some National Sample Results." *The Sociological Quarterly* 27:121-143.
- Marwell, Gerald, Rachel A. Rosenfeld, and Seymour Spilerman. 1979. "Geographic Constraints on Women's Careers in Academia." *Science* 205:1225-1231.
- Maxwell, Nan L. 1988. "Economic Returns to Migration: Marital Status and Gender Differences." *Social Science Quarterly* 69:108-121.
- Mincer, Jacob. 1978. "Family Migration Decisions." *Journal of Political Economy* 86:749-773.
- Morrison, Donna R. and Daniel T. Lichter. 1988. "Family Migration and Female Employment: The Problem of Underemployment among Migrant Married Women." *Journal of Marriage and the Family* 50:161-172.
- Reskin, Barbara F. 1993. "Sex Segregation in the Workplace." *Annual Review of Sociology* 19:241-270.
- Shihadeh, Edward S. 1991. "The Prevalence of Husband-Centered Migration: Employment Consequences for Married Mothers." *Journal of Marriage and the Family* 53:432-444.
- Spain, Daphne and Suzanne M. Bianchi. 1996. *Balancing Act: Motherhood, Marriage, and Employment Among American Women*. New York: Russell Sage Foundation.
- Spitze, Glenna. 1984. "The Effects of Family Migration on Wives' Employment: How Long Does it Last?" *Social Science Quarterly* 65:21-36.