

Migration and Employment Among the Civilian Spouses of Military Personnel*

Thomas J. Cooke, *University of Connecticut*

Karen Speirs, *University of Connecticut*

Objectives. This article attempts to directly observe the effect of being a tied migrant on the economic status of the civilian husbands and wives of military personnel in order to confirm whether previously observed trailing-wife effects are consistent with being a tied migrant. *Methods.* A sample of the civilian husbands of women in the military and the civilian wives of men in the military are drawn from the Public Use Microdata Sample of the 1990 U.S. Census. Ordinal logit models of labor-market status and tobit models of hours worked are estimated, which include a migrant status variable. *Results.* Migration is associated with a 10 percent decline in employment among all civilian wives and a four-hour decline in hours worked per week among civilian wives who remain employed. Migration is associated with a statistically insignificant but very similar 6 percent drop in employment among all civilian men and a five-hour decline in hours worked per week among civilian men who remain employed. *Conclusions.* The results provide solid evidence that being a tied migrant, irrespective of gender, is disruptive to both labor-market status and hours worked. Thus, the assumption that wives are harmed because of their disproportionate status as tied migrants is supported.

Decades of family migration research have consistently found that the economic status of married women declines with migration. The bulk of evidence indicates that this trailing-wife effect is not consistent with economic theory, suggesting that gender-based family roles may play a leading role (see Cooke, 2003). Although the term “trailing wife” has a patriarchal and deterministic tone, it accurately reflects the evidence: the negative effect of moving on the economic status of married women apparently occurs because the family gives a disproportionate weight to the husband’s employment prospects when making the decision to move. Thus, family migration research has assumed that migration reduces married women’s economic status because they are “tied migrants.” However, no study has directly identified a sample of tied migrants and documented the effect of moving on them because secondary data sources do not report which spouse

*Direct correspondence to Thomas J. Cooke, Associate Professor, Department of Geography, U-4148, University of Connecticut, Storrs, CT 06269-4148 (tcooke@uconn.edu). The author agrees to make the data and coding available on request.

initiated the move and which was the tied spouse.¹ This article attempts to directly observe the effect of being a tied migrant on the economic status of the civilian husbands and wives of military personnel in order to confirm whether previously observed trailing-wife effects are consistent with being a tied migrant.

Background

DaVanzo (1972, 1976), Sandell (1977), and Mincer (1978) each developed very similar theories regarding family migration based on human capital theory (Becker, 1974; Sjaastad, 1962). The exact impetus for this development is unclear but there is some indication that by the early 1970s, increasing female labor-force participation was having an unexpected effect on family migration rates (Long, 1974). The resulting human capital model of family migration has continued to provide a parsimonious framework from which to consider how families make migration decisions and the consequences of those decisions.

The human capital model of migration views the migration of a single person as an investment with both costs and benefits over the lifecycle (Sjaastad, 1962). An individual decides to live in the location, less any costs of moving, that provides him or her with the highest discounted life-time utility. However, the migration decisions of individuals within a family are likely to be incompatible. One spouse may individually benefit by a move to one location while the other spouse may benefit most by not moving at all or by moving to a different location. The human capital model of family migration addresses this conflict by assuming that "net family gain rather than net personal gain motivates migration of the household" (Mincer, 1978:750). Thus, even though all resources are assumed to be shared such that a gain for one family member results in gains for other family members, family moves can be made at the expense of one spouse's "individual utility" (the utility a married individual would experience had he or she been single) so long as the family gains in the aggregate.

The idea that the individual costs and benefits to moving or staying are unlikely to be evenly distributed among spouses leads to the identification of two key terms: the "tied mover" and the "tied stayer." A tied mover experiences a move that does not maximize his or her individual discounted life-time utility. Tied movers tend to be individuals who have a lower relative earning ability than their spouses such that the increase in earnings associated with a move for the high-income spouse more than compensates for both the costs of moving and the decline in earnings of the other spouse.

¹McCollum (1990) took a clinical psychology approach to studying the effects of moving on tied migrants but the effects were not quantified. Similarly, Ferber and Huber (1979) found that female Ph.D.s were less likely to lead a move than otherwise similar men, especially if they were married to another Ph.D., and that this likely affected their employment.

Similarly, a tied stayer experiences a decision to stay that does not maximize his or her individual discounted life-time utility. The determinants of being a tied stayer, however, are somewhat less specific. Suffice to say that a tied stayer is an individual whose gain in earnings due to a potential move does not compensate for either the cost of the move and/or their spouse's individual loss in utility.

Based on these arguments, Mincer (1978:758) concludes that moving is likely to have a negative effect on the economic status of women: "Indeed, within the family, higher market earning powers of husbands induce a lesser market participation, lower market earnings and a diminished migration payoff for the wife. . . . In view of the smaller gains from migration, wives are more likely to be tied movers in migration families, while husbands, if they are tied at all, are more likely to be tied stayers than tied movers. Of course, the larger the wife's contribution to family earnings, and the stronger her job attachment, the greater the deterrent effect on family mobility."

However, nearly every empirical study has found that gender—not earning ability—is the primary determinant of postmigration economic status (Cooke, 2003; Halfacree, 1995). Ad-hoc explanations have emphasized that the likely explanation for the gender effect is that the migration decision-making process is strongly influenced by the gender role socialization of men and women. For example, Shihadeh (1991:443) concludes that "women are often socialized to place family first and personal goals second when it comes to critical household matters." Note, however, that only a few studies have attempted to directly test the importance of gender roles on migration decisions or on migration outcomes (Bielby and Bielby, 1992; Wallston, Foster, and Berger, 1978).

One limitation of the empirical research is that there has not been a study of the effects of moving specifically focused on tied migrants. Secondary data sources do not clearly identify which spouse initiates the move and which spouse is the tied mover. Rather, the empirical literature finds that moving harms the economic status of married women and assumes that this occurs because married women are tied migrants. This study aims to measure the effects of moving among a sample of individuals who are clearly tied migrants and to determine whether these effects are consistent with the trailing-wife literature.

Military families provide a natural experiment for observing how migration affects the economic status of tied movers. Among military families the migration decision is largely made by the military, hence migration behavior is independent of any gendered migration decision-making process. Furthermore, identity of the leading (military) and trailing (civilian) spouse is known. Not only can we directly observe how migration affects tied migrants, but we can also observe if there are any gender differences in those effects between (1) the civilian husbands of women in the military and (2) the civilian wives of men in the military. The trailing-wife literature emphasizes that married women are negatively impacted by family migration

because they are disproportionately accorded the status of the tied migrant. We should find, therefore, that the effect of moving on the civilian husbands of military wives is similar to the effect of moving on the civilian wives of military husbands.

However, there are some possible factors related to postmigration events that may negatively impact civilian wives more than civilian husbands. First, women tend to have smaller job search areas than men owing to many factors but predominantly due to their greater time constraints and lower economic returns to investments of time and effort in job search (Hanson and Pratt, 1995). As well, women tend to rely more heavily on informal, local, personal networks for finding employment while men tend to rely more heavily on formal, regional, and professional networks. On average, therefore, a trailing wife will have a more difficult time finding a job than an otherwise similar trailing husband. Second, the destination context may constrain the employment prospects of women. Research in geography has emphasized how the migration and residential location decisions of married couples are skewed toward suburban areas with sparse job opportunities (Wyly, 1998). Following a move, therefore, a trailing wife is more likely than a trailing husband to search for employment in a spatially constrained job-poor area.

Finally, gender differentials in family and household responsibilities may also cause women to be more negatively impacted than men by migration, even among the civilian spouses of military personnel. McCollum (1990) conducted a two-year longitudinal analysis of a group of 42 recent migrants to the anonymous city of "Northland" in New England. Among other observations, she notes that the responsibility for reconstructing the household following a move fell on the wife regardless of her employment status. Indeed, McCollum (1990) goes so far as to conclude that "moving is women's work." This is perhaps another example of the "second shift," which argues that women's typically uneven household and family responsibilities limit their career progression. In this case, the taken-for-granted female responsibility in planning and carrying out a move would limit the quality and extent of job search both before and after a move. It is also likely that these effects are exacerbated in the presence of children because the piling on of time-consuming responsibilities might make an effective job search nearly impossible. On average, therefore, a trailing wife will have less time to spend on job search than an otherwise similar trailing husband.

None of these factors can be directly tested with the data at hand but they could possibly influence the results. However, it is still expected that the trailing-wife effect occurs because women are tied migrants and that this study of the civilian spouses of the armed forces provides a unique insight into the consequences of family migration. Therefore, it is expected that (1) the effects of moving on the economic status of the civilian wives and husbands of military personnel are negative, and (2) that because of postmigration gender differences in job search this effect *may* be larger among the civilian wives than among the civilian husbands.

Family migration is of particular interest with respect to the military. Starting in the 1960s, all branches of the military recognized that productivity and retention could be influenced by the stresses induced on the family through repeated moves (Cline, 2003). Today, all branches of the military have various programs that help the spouses of military personnel find suitable employment. Employment assistance programs (EAPs) provide job training, job placement, and career counseling, along with working with personnel staffing firms. A similar set of on-base relocation assistance programs provides help with postmigration housing, education, and employment. Lastly, the Military Spouse Preference Program provides limited preferential access to federal jobs following a move.

Considering the importance of family migration to retention and productivity, there are few academic studies of the effects of military migration. Payne, Warner, and Little (1992) examine how the length of a residential sojourn impacts the labor-force participation of trailing wives. They find that a three-year rotation, relative to a six-year rotation, decreases military wives' earnings by 40 percent. Schwartz, Wood, and Griffith (1991) find that the frequency of moving appears to reduce the labor-force participation, employment, hours worked, and full use of job skills of the civilian wives of military personnel. Neither of these studies, however, specifically examines the effect of moving on the civilian husbands of military personnel nor do they directly estimate the effect of moving on labor-market activity.

Data and Methods

The primary issue in estimating the economic effect of moving among military couples is finding a sample of adequate size. The largest available secondary data source that provides individual and family-level data is the 5% Public Use Microdata Sample (PUMS) of the 1990 U.S. Census. Heterosexual military couples are identified in the PUMS based on the military activity of either the husband or the wife.

The geography of the PUMS is an important consideration. PUMS records both 1990 and 1985 place of residence down to relatively small areas called Public Use Microdata Areas (PUMAs). These are aggregations of other Census boundaries into areas of at least 100,000 population. Therefore, in urban areas PUMAs are frequently smaller than municipal government boundaries, but in rural areas PUMAs are usually groups of counties. To define a more consistent geographic unit for identifying 1985 and 1990 place of residence, PUMA boundaries are matched to Labor Market Areas (LMAs). LMAs are groups of counties based on county-to-county commuting flows from the 1990 U.S. Census (Tolbert and Sizer, 1996). Groups of counties with strong commuting ties were clustered into Commuting Zones and then into 394 LMAs to meet Census confidentiality require-

ments. LMA boundaries cross PUMA boundaries in some cases, so PUMAs are assigned to the LMAs that contain the largest share of their area.

There are a couple of issues regarding military couples that constrain the analysis. First, migration is defined by comparing the 1985 place of residence with the 1990 place of residence. Many members of the military may have moved from their 1985 civilian residence to join the military. Therefore, the sample is restricted to individuals who have been in the armed forces for at least five years. Second, the concern is with married-couple families but the PUMS does not record whether individuals were married in 1985. Again, migration may have occurred independent of marital status between 1985 and 1990. A solution is to include only married couples who both lived in the same LMA in 1985. Although some of these couples were likely not married in 1985, their migration behaviors between 1985 and 1990 were similar and their final status as married suggests that much of that migration is due to family migration. Lastly, the analysis is conducted only for the civilian spouses of military personnel because the concern in this analysis is with the tied migrant.

Thus, the entire sample for analysis consists of civilians whose spouse has been in the armed forces at least five years and who were both living in the same LMA in 1985. Table 1 provides descriptive statistics for the variables used in the analysis. The primary variable in the analysis is migration status, which is based on the distance between the geographic centers of the 1985 PUMA of residence and the 1990 PUMA of residence. A family is considered to have moved if this distance is greater than or equal to 50 miles. Using this definition, 77 percent of the women and 62 percent of the men are classified as migrants. Figure 1 confirms the fact that military migration occurs over very long distances. Indeed, while only slightly less than 20 percent did not change their place of residence, more than a third of the sample moved at least 1,000 miles.

The analysis is based on the estimation of two models.² The first is an ordinal logit model of labor-market status (Liao, 1994; Long, 1997). Individuals are assigned to one of three categories: (1) unemployed and not looking for a job (i.e., out of the labor force), (2) unemployed but looking for a job, and (3) employed. The parameters of an ordinal logit model are interpreted much as they are for a binary logit model. A positive value indicates a greater likelihood of being at a higher rather than a lower level of labor-market status while a negative value indicates a greater likelihood of being at a lower rather than a higher level of labor-market status.

The second model is a tobit model of hours worked in the previous week (Liao, 1994; Long, 1997; Tobin, 1958). This sample is limited to those individuals who indicate that they are either employed or looked for a job in

²An ideal dependent variable would be earnings. However, in the PUMS, earnings is reported for the full year prior to the Census. Therefore, for a large number of respondents, the reported earnings would be for the previous place of residence.

TABLE 1

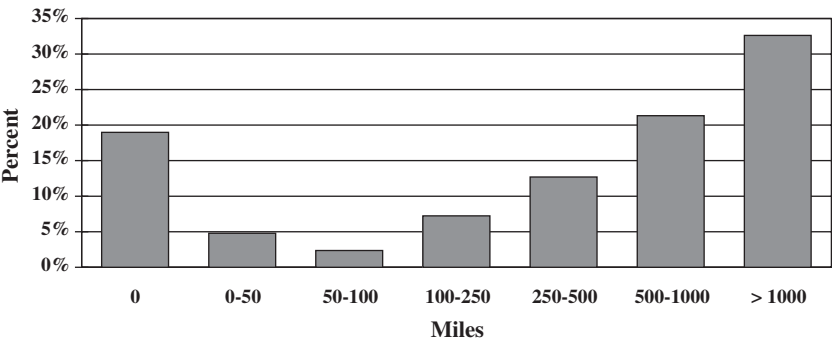
Descriptive Statistics

Variable	Women		Men	
	76.7%		62.0%	
	Movers	Stayers	Movers	Stayers
Average 1990 LMA unemployment rate	5.4%	5.6%	5.3%	5.7%
Average age	33.0	32.9	34.7	35.1
% worked in 1989	66.0	75.8	91.4	94.6
% disabled	3.8	4.8	7.2	8.6
% parents	84.6	80.7	73.0	73.1
% with a college degree	19.6	13.9	22.4	21.5
% whose spouse is an officer	10.3	5.6	8.6	4.3
In the labor force	57.3%	68.9%	86.2%	91.4%
Employed	51.7%	64.6%	79.6%	87.1%
Average hours worked last week	17.7	23.1	33.6	40.0
N	6,214	1,891	152	93

the previous week ($N = 5,081$ vs. $N = 8,350$ for the entire sample). Individuals who looked for a job in the previous week obviously are unemployed and report zero hours worked. Since these individuals are participating in the labor market it is reasonable to include their hours worked in estimates of the effect of moving on hours worked. However, including these individuals means that there is a large number of observations with zero hours worked. The traditional way to handle models of hours of work is to include the unemployed and to estimate a tobit model, which takes into account the truncated nature of the data.

FIGURE 1

Distance Moved



Each of these models is estimated as a function of variables designed to reflect demographic characteristics, human capital characteristics, local labor-market conditions, and migration behavior: (1) *Age*, (2) *Female?* (= 1 if yes), (3) *Parent?* (= 1 if yes), (4) *Work-Limiting Disability?* (= 1 if yes), (5) *College Degree?* (= 1 if yes), (6) *Worked in 1989?* (= 1 if yes), (7) *Spouse an Officer?* (= 1 if yes), and (8) *LMA Unemployment Rate*. Finally, since we are interested in the difference in the effect of moving on labor-market status and hours worked between the civilian husbands and wives of military personnel, the model includes a migration variable, (9) *Migrant?* (= 1 if yes), and the interaction of this migration variable with the gender (*Female?*) variable: (10) *Migrant Female?* (= 1 if yes). The parameter associated with the migration variable (*Migrant?*) is therefore an estimate of the effect of moving among civilian husbands, the sum of *Migrant?* plus *Migrant Female?* is an estimate of the effect of moving among civilian wives, and the interaction variable (*Migrant Female?*) is an estimate of the difference in the effect of moving between civilian husbands and civilian wives.

Results

Table 2 presents the results of the ordinal logit model of labor-market status. On the whole, the model explains a statistically significant share of the total variance of the dependent variable ($p = 0.000$). With respect to the parameter estimates, positive (negative) values indicate that the probability

TABLE 2
Ordinal Logit Model of Labor-Market Status

Variable	Parameter	Standard Error	Z	$P > z $
Female?	-0.879	0.349	-2.520	0.012
Age	0.027	0.004	6.720	0.000
Worked in 1989?	3.127	0.064	49.160	0.000
Work-limiting disability?	-0.781	0.134	-5.840	0.000
Parent?	-0.196	0.073	-2.680	0.007
LMA unemployment rate	-0.022	0.013	-1.640	0.102
Migrant?	-0.514	0.411	-1.250	0.211
College degree?	0.185	0.073	2.520	0.012
Spouse an officer?	-0.115	0.097	-1.190	0.235
Migrant female?	0.110	0.416	-0.270	0.791
Intercept 1	1.087	0.392	n.a.	n.a.
Intercept 2	1.445	0.393	n.a.	n.a.
<i>Criteria for Assessing Model Fit</i>				
Log likelihood	-5240			
N	8,350			
χ^2 likelihood ratio (10 df)	3711.53			
$P > \chi^2$	0.000			
Pseudo R^2	0.260			

TABLE 3
Tobit Model of Hours Worked

	Parameter	Standard Error	<i>t</i>	<i>P</i> > <i>t</i>
Female?	-9.781	1.915	-5.110	0.000
Age	0.129	0.037	3.490	0.000
Worked in 1989?	15.719	0.916	17.160	0.000
Work-limiting disability?	-7.858	1.456	-5.400	0.000
Parent?	-3.703	0.610	-6.070	0.000
LMA unemployment rate	-0.264	0.119	-2.220	0.027
Migrant?	-4.980	2.383	-2.090	0.037
College degree?	0.574	0.625	0.920	0.358
Spouse an officer?	-0.179	0.890	-0.200	0.841
Migrant female?	2.840	2.446	1.160	0.246
Intercept	28.075	2.554	10.990	0.000
<i>Criteria for Assessing Model Fit</i>				
Log likelihood	-19997			
<i>N</i>	5,081			
χ^2 likelihood ratio (10 df)	490.95			
<i>P</i> > χ^2	0.000			
Pseudo <i>R</i> ²	0.012			

of being (1) employed versus unemployed or out of the labor force, or (2) employed or unemployed versus out of the labor force, increases (decreases) with an increase in the independent variable. Thus, labor-market status (i.e., being at a higher vs. a lower level) increases with age ($p = 0.000$), having had a job the previous year ($p = 0.000$), and having a college degree ($p = 0.012$). Similarly, labor-market status decreases with being female ($p = 0.012$), having a disability ($p = 0.000$), and being a parent ($p = 0.007$). Variables associated with LMA unemployment rate ($p = 0.102$), migrant status ($p = 0.211$), having an officer as a spouse ($p = 0.235$), and the interaction of gender and migrant status ($p = 0.791$) are not statistically significant.

Table 3 presents the results of the tobit model of hours worked. On the whole, the model explains a statistically significant share of the total variance of the dependent variable ($p = 0.000$). With respect to the parameter estimates, hours worked increases with age ($p = 0.000$) and having had a job the previous year ($p = 0.000$). Similarly, hours worked decreases with being female ($p = 0.000$), having a disability ($p = 0.000$), being a parent ($p = 0.000$), LMA unemployment rate ($p = 0.027$), and migrant status ($p = 0.037$). Variables associated with having a college degree ($p = 0.358$), having an officer as spouse ($p = 0.841$), and the interaction between gender and migrant status ($p = 0.246$) are statistically insignificant.

Table 4 summarizes the results of the two models with respect to the effect of moving on the labor-market status and hours worked of the civilian spouses of military personnel. The first column of values provides the estimated effect of moving among women. As discussed earlier, the

TABLE 4
Effects of Migration on Labor-Market Status and Hours Worked

	Value	Wives	Husbands	Difference
Ordinal logit of labor-market status	Odds ratio	0.6680	0.5982	1.1167
	Standard error	0.0658	0.4109	0.0972
	Z	-6.1300	-1.2500	-1.1900
	$P(P > Z)$	0.0000	0.2110	0.2350
Tobit of hours worked	Parameter	-2.1399	-4.9800	2.8401
	Standard error	0.5588	2.3831	2.4464
	T	-3.8300	-2.0900	1.1600
	$P(P > t)$	0.0000	0.0370	0.2460

estimated effect of moving among women is determined by the combined effect of two variables: Migrant? and Migrant Female? Thus, the "odds ratio" value in the first column is the sum of the parameter estimates from Table 2 for Migrant? (-0.514) and Migrant Female? (0.110), which has then been exponentiated. The hours worked estimate is merely the sum of the parameters associated with these two variables from Table 3. However, the associated standard errors for these parameters are not so easily calculated because they are not simple functions of the component standard errors (see Gujarati, 1995). The second column of values presents the estimated effect of moving among men. This parameter and standard error is merely the parameter and standard error associated with the migrant status variable (Migrant?) from Tables 2 and 3. Similarly, the third column of values presents the estimated difference in the effect of moving between men and women. This parameter and standard error is associated with the interaction of gender and migrant status (Female Migrant?) drawn from Tables 2 and 3.

For the civilian wives of male military personnel, migration is associated with a statistically significant decline in labor-market status ($p = 0.000$) and hours worked ($p = 0.000$). Women who move are 0.6680 times as likely to be at a higher level versus a lower level of labor-market status than women who do not move, and to work 2.1399 hours less per week than women who do not move. With respect to the civilian husbands of female military personnel, migration is associated with a statistically significant decline in hours worked ($p = 0.037$) but no significant change in labor-market status ($p = 0.2110$). The hours worked parameter indicates that men who moved work almost five hours less per week than men who did not move. Although the ordinal logit models indicate that there is no statistically significant effect of moving on labor-market status, the low level of insignificance ($p = 0.2110$), small sample size (245), and numerically similar parameters for the men (0.6680) and women (0.5982) should not be discounted. Indeed, turning to differences between the parameter estimates, there is no statistically significant difference in the effect of moving on either labor-market status ($p = 0.2350$) or hours worked ($p = 0.2460$) between the wives and husbands of military personnel.

TABLE 5

Predicted Effects of Migration on Labor-Market Status and Hours Worked

		Out of the Labor Force	Unemployed	Employed	Hours Worked
Women	Movers	40.61%	8.84%	50.55%	26.00
	Stayers	31.36%	8.16%	60.48%	29.65
	Difference	9.26%	0.67%	- 9.93%	- 3.65
Men	Movers	12.31%	4.41%	83.28%	37.36
	Stayers	7.74%	2.98%	89.28%	42.68
	Difference	4.56%	1.44%	- 6.00%	- 5.32

These results are difficult to interpret clearly and therefore Table 5 reports the predicted hours worked and labor-market status categories by gender and migrant status. These values were calculated using the parameter estimates from Tables 2 and 3 and substituting the variable sample means for men and women where appropriate. The calculated effects in these predictions differ somewhat from the estimated parameters in Table 4 because the models are nonlinear. However, the same basic pattern emerges. Civilian wives experienced a sizeable increase in dropping out of the labor force due to migration: only 32 percent of stayers were out of the labor force while nearly 41 percent of the movers were out of the labor force. This 9 percent drop in labor-force participation among women due to migration is largely due to a drop in employment: 60 percent of stayers compared to 51 percent of movers were employed. As well, there is even a drop in hours worked among the women who remained employed. Employed migrants worked 26 hours per week compared to nearly 30 hours per week among employed stayers. Thus, for the civilian wives of military personnel, migration is associated with a predicted 9 percent increase in unemployment, a 10 percent drop in employment, and among those who are still employed a four-hour decline in hours worked per week.

A similar story emerges for the civilian husbands of military personnel. Civilian husbands experienced a sizeable decrease in labor-force participation due to migration: only 8 percent of stayers were out of the labor force while nearly 12 percent of the movers were out of the labor force. This predicted 5 percent drop in labor-force participation among men due to migration is largely due to a drop in employment: 89 percent of stayers compared to 83 percent of movers were employed. As well, there is even a drop in hours worked among the men who remained employed. Employed migrants worked 37 hours per week compared to nearly 43 hours per week among employed stayers. Thus, for the civilian husbands of military personnel, migration is associated with a predicted 5 percent increase in unemployment, a 6 percent drop in employment, and among those who are still employed a five-hour decline in hours worked per week.

To summarize, military migration causes (1) statistically significant and statistically similar declines in hours worked for both trailing wives and trailing husbands, (2) a statistically significant decline in labor-market status

among trailing wives, and (3) a statistically similar (but not statistically significant) decline in labor-market status among trailing husbands. Based on model predictions, migration is associated with a 9 percent increase in unemployment, a 10 percent drop in employment, and among those who are still employed a four-hour decline in hours worked per week among the civilian wives of military personnel. For men, migration is associated with a five-hour decline in hours worked per week and declines in employment rates that are similar to those experienced by women. Thus, this analysis demonstrates that migration causes a similar decline in the economic status of both male and female tied migrants.

Conclusion

Previous research on the trailing-wife effect has assumed that migration reduces married women's economic status because they are more often tied migrants. To date, no study has directly examined the effect of moving on tied migrants. This study has used a unique sample of the civilian husbands and wives of military personnel to directly observe how migration affects tied migrants. The results provide solid evidence that being a tied migrant, irrespective of gender, is disruptive to employment in terms of hours worked and labor-market status. Thus, the assumption that wives are harmed because of their disproportionate status as tied migrants is supported. Finding that there are no differences in effects between men and women also suggests, but does not prove, that postmigration factors related to differences in how men and women search for employment do not contribute to the trailing-wife effect. The sample and the nature of military migration are unique in enough ways that it is unlikely that these results are generalizable to the civilian population. However, the purpose of the analysis was to identify a sample of tied migrants and to determine if the effects of moving on tied migrants are similar to the effects of moving on trailing wives. The fact that they are means that additional research is needed into how and why families apparently give a disproportionate weight to the husband's employment prospects when making the decision to move. Additional insights should be gained by replicating this study using data from the recently released Public Use Microdata Sample of the 2000 U.S. Census. Finally, while the focus of this study is not on military labor-force issues, these results do demonstrate that military policies (as of 1990) designed to aid the employment of civilian spouses may not be effective.

REFERENCES

- Becker, Gary S. 1974. "A Theory of Marriage." In T. W. Schultz, ed., *The Economics of the Family: Marriage, Children, and Human Capital*. Chicago, IL: University of Chicago Press.
- Bielby, William T., and Denise Bielby. 1992. "I Will Follow Him: Family Ties, Gender-Role Beliefs, and Reluctance to Relocate for a Better Job." *American Journal of Sociology* 97:1241-67.
- Cline, Lydia Sloan. 2003. *Today's Military Wife*. Mechanicsburg, PA: Stackpole Books.

- Cooke, Thomas J. 2003. "Family Migration and the Relative Earnings of Husbands and Wives." *Annals of the Association of American Geographers* 93:338–49.
- Davanzo, Julie. 1972. *A Family Choice Model of U.S. Interregional Migration Based on the Human Capital Model*. Santa Monica, CA: Rand.
- . 1976. *Why Families Move: A Model of the Geographic Mobility of Married Couples*. Santa Monica, CA: Rand.
- Ferber, Marianne, and Joan Huber. 1979. "Husbands, Wives, and Careers." *Journal of Marriage and the Family* 41:315–25.
- Gujarati, Damodar N. 1995. *Basic Econometrics*. New York: McGraw-Hill.
- Halfacree, Keith H. 1995. "Household Migration and the Structuration of Patriarchy—Evidence from the USA." *Progress in Human Geography* 19:159–82.
- Hanson, Susan, and Geraldine Pratt. 1995. *Gender, Work, and Space*. New York: Routledge.
- Liao, Tim Futing. 1994. *Interpreting Probability Models: Logit, Probit, and Other Generalized Linear Models*. Thousand Oaks, CA: Sage Publications.
- Long, J. Scott. 1997. *Regression Models for Categorical and Limited Dependent Variables*. Thousand Oaks, CA: Sage Publications.
- Long, Larry H. 1974. "Women's Labor Force Participation and the Residential Mobility of Families." *Social Forces* 52:342–48.
- McCollum, Audrey. 1990. *The Trauma of Moving*. Andover, MA: Sage.
- Mincer, Jacob. 1978. "Family Migration Decisions." *Journal of Political Economy* 86:749–78.
- Payne, Deborah M., John T. Warner, and Roger D. Little. 1992. "Tied Migration and Returns to Human Capital: The Case of Military Wives." *Social Science Quarterly* 73:324–39.
- Sandell, Steven H. 1977. "Women and the Economics of Migration." *Review of Economics and Statistics* 59:406–14.
- Schwartz, Brad J., Lisa L. Wood, and Janet D. Griffith. 1991. "The Impact of Military Life on Spouse Labor Force Outcomes." *Armed Forces and Society* 1991:385–407.
- Shihadeh, Edward S. 1991. "The Prevalence of Husband-Centered Migration: Employment Consequences for Married Mothers." *Journal of Marriage and the Family* 53:432–44.
- Sjaastad, Larry A. 1962. "The Costs and Returns to Human Migration." *Journal of Political Economy* 70:80–93.
- Tobin, James. 1958. "Estimation of Relationships for Limited Dependent Variables." *Econometrica* 26:24–36.
- Tolbert, Charles M., and Molly Sizer. 1996. "U.S. Commuting Zones and Labor Market Areas: A 1990 Update." In *Staff Paper No. AGES-9614*. Washington, DC: Rural Economy Division, Economic Research Service, U.S. Department of Agriculture.
- Wallston, Barbara Strudler, Martha A. Foster, and Michael Berger. 1978. "I Will Follow Him: Myth, Reality, or Forced Choice: Job Seeking Experiences of Dual Career Couples." *Psychology of Women Quarterly* 3:9–21.
- Wyly, Elvin. 1998. "Containment and Mismatch: Gender Differences in Commuting in Metropolitan Labor Markets." *Urban Geography* 19:395–430.