



# **RESEARCH PAPER 3**

## **WAGE PENALTIES AND THE SECOND EARNER: CAREER HIERARCHY IN DUAL-EARNER FAMILIES**

**By: Anne E. Winkler**, Associate Professor, Department of Economics and **David C. Rose**, Associate Professor, Department of Economics & Fellow, Public Policy Research Center University of Missouri-St. Louis

**The possibility that career hierarchy affects wage outcomes in particular raises an important policy question.**



8001 Natural Bridge Road  
St. Louis, Missouri 63121-4499

**FOR MORE INFORMATION**

(314) 516.5273 **TEL**  
(314) 516.5268 **FAX**

pprc@umsl.edu **EMAIL**  
[www.umsl.edu/services.pprc/index.htm](http://www.umsl.edu/services.pprc/index.htm)

Other research papers include:

- 1. DOWNTOWN REVITALISATION: RESEARCH TRENDS AND FINDINGS**
- 2. CONSIDERATIONS OF SPIRITUAL MEASUREMENT IN PUBLIC POLICY: CHURCH, STATE, AND ELDER HEALTH**

With the rise of the dual-earner family has come a question of increasing relevance to labor economists, demographers, and sociologists alike. Specifically, how might career hierarchy, that is, one spouse's job or career taking precedence over the other's, affect labor market outcomes? The possibility that career hierarchy affects wage outcomes in particular raises an important policy question: Do women receive lower wages in part because they tend to have the "secondary career" in the family?

Using data on spouses' relative earnings and attitudes taken from the Current Population Survey (CPS) and the National Survey of Families and Households (NSFH), this paper investigates the likely patterns of career hierarchy in families and then examine some implications career hierarchy may have for women's wages.

### **I. Related Research**

To date, the concept of career hierarchy in dual-earner families has received little attention with the exception of a recent survey by the Catalyst Organization (1998). The Catalyst study asked 802 husbands and wives who both work full-time: "Thinking about your career and your spouse's career, do you consider one career to be primary?" In response to this question, only 6 to 9 percent of wives were classified as primary, compared to 33 to 45 percent of husbands, depending on the gender of the respondent. The remaining couples were classified as having equal careers. The study also indicated a strong tie between relative spousal earnings and career hierarchy, with over two-thirds of respondents stating that their current or future salary was the main reason for their response.

Related research has focused on the direct effects of family migration and job mobility on women's wages. This includes recent work by Joyce Jacobsen and Laurence Levin (1997) and Kristin Keith and Abigail McWilliams (1997). In what follows, this paper steps back from observed mobility and/or migration decisions studied in this literature to look at the more fundamental question of how career hierarchy might affect wages, viewing actual mobility events and wages as both being consequences of career hierarchy.

The study of career hierarchy in the family is perhaps most closely related to work by sociologists who have studied the concept of the family breadwinner and its implications for domestic role sharing (see, for instance, Jane Hood, 1986; Glenna Spitze, 1988; and Jean Potuchek, 1997.) Note, however, that even when both partners are defined as breadwinners (both bear responsibility as providers and neither has the option to leave the labor force), there still remains the issue of whose career takes precedence and its consequent effects.

---

## II. Data and Measures of Earnings Dominance

### A. Data

The likely pattern of career hierarchy in the family and its implications for wages using the March Demographic File from the 1993 Current Population Survey (CPS) and the 1987-1988 wave and the 1992-1994 wave of the National Survey of Families and Households (NSFH), a nationally representative sample of 13,007 respondents collected by the Center for Demography and Ecology at University of Wisconsin. Although the CPS is larger (57,000 households), the NSFH has the advantage of including questions on actual work experience, and attitudes regarding career roles.

---

**Information about spouses' relative earnings was used to develop measures of earnings dominance that reflect likely patterns of career hierarchy in the family.**

---

The sample was limited to married dual-earner couples between ages 25 and 64 in which both partners work full-time, full-year. The work restriction avoids the related issues of part-time work and labor force participation from the analysis. Individuals who had self-employment income were also eliminated because the analysis entails spousal earnings comparisons and, in some cases, this income may be jointly earned. Finally, individuals with hourly earnings less than \$1 or greater than \$100 and observations missing wage information were eliminated (NSFH).

The design of the NSFH requires an additional selection criteria. The NSFH survey sought to interview the main respondent and his/her spouse if present, but the latter information was not always obtained. Since this study requires information for both, observations with a missing record for either individual had to be omitted, creating the possibility of non-response bias. Wage regressions reported in Table 2 that include controls for race, education, etc. should, however, control for any differences in sample composition due to these characteristics. Finally, in the selected sample itself, it appears that the observed characteristics of husbands and wives differ somewhat depending on the sex of the main respondent, so these groups are analyzed separately. Unweighted sample sizes for the CPS and NSFH are provided at the bottom of Table 1.

### B. Measures of Earnings Dominance

Information about spouses' relative earnings was used to develop measures of earnings dominance that reflect likely patterns of career hierarchy in the family. Ideally one would want to use direct questions about career hierarchy such as those asked by Catalyst (1998), but these questions are not asked in nationally-representative data sets such as the CPS and NSFH.

Previous estimates of earnings dominance (Bureau of the Census, 1998; Anne Winkler, 1998) indicate that in over 20 percent of dual-earner couples, wives outearn their husbands. This finding very likely overstates the number of cases in which a wife has the primary career because a wife has to earn only one dollar more than her husband to be so classified. Since one could argue that any earnings dominance threshold is arbitrary, this paper considers several measures.

The thresholds constructed are based on a computed hourly wage and/or the median weekly wage associated with the occupation, what could be called the "career" wage. The hourly wage is computed as annual earnings divided by annual hours worked. The "career" wage is the sex-specific median weekly wage for 42 occupations based on data from Bureau of Labor Statistics, [Employment and Earnings](#). Career wages overcome problems that result when comparing earnings of spouses who are at differing stages of their careers. Further, these wages are not subject to transitory wage shocks.

The first measure of earnings dominance, Measure 1, is based on two thresholds. Let A and B comprise a married couple. If A's actual wage exceeds B's actual wage and A's career wage exceeds B's career wage, then A is defined as the dominant earner. In the second measure of earnings dominance, Measure 2, A is defined as having dominant earnings if A's career wage is at least 25 percent more than B's career wage, where the percent difference in wages is computed as  $(W_A - W_B)/(W_A + W_B)/2$ . Note that both Measures 1 and 2 allow for the possibility that neither partner has dominant earnings.

### III. Empirical Investigations

#### A. Earnings Dominance

Table 1 provides estimates of earnings dominance among dual-earner couples. Since the sample is subject to the effects of positive assortative mating (see Winkler, 1998), the variance in earnings among such spouses is likely to be smaller than would have been observed in a sample of randomly-paired men and women. As found previously, over 20 percent of wives outearn their husbands, regardless of how earnings are defined. Results based on Measures 1 and 2 indicate that 5.5 to 11.3 percent of wives have dominant earnings, with differences depending on the year and sample.<sup>1</sup> Further, the NSFH data (which provide overlapping cross-sections in which both spouses are age 25-64), indicate that the pattern of earnings dominance has changed; in 1992 more wives had dominant earnings than in 1987, fewer husbands had dominant earnings, and there was an increase in the proportion of families in which neither spouse had dominant earnings.<sup>2</sup>

#### B. Career Hierarchy in the Family and Wage Outcomes

Career hierarchy may affect wages through a number of channels. First, having the secondary career in the family may adversely affect one's wages by reducing one's ability to take advantage of better paying job offers that require relocation. Indeed, a spouse's career status may affect wages without even generating a mobility event. Suppose an employee's threat to leave is viewed as credible precisely because he/she is known to have the primary career in his/her family. That individual may be able to negotiate a higher wage without ever leaving his/her current job. This illustrates an important advantage of stepping back from the analysis of observed mobility events and focusing on career hierarchy because career hierarchy also reflects the possible effect of potential mobility on wages.

Second, having the secondary career in a family may increase one's likelihood of being subject to a family-related quit. Previously, Keith and McWilliams (1997) found this type of quit to have a significant negative effect on wages.

A third reason why career hierarchy may affect wages is through its effect on housework and, hence, effort available for market work. Gary Becker (1985) has argued that full-time, full-year married women should earn less than their male counterparts because they bear a larger share of child care and other household responsibilities, inducing them to seek jobs that require less effort (Becker, 1985; for empirical evidence see Hersch and Stratton, forthcoming). One might also expect wage differences depending on a wife's career position in the family. That is, wives who have the primary career in their family may be more likely to have husbands who do more housework. This effect, however, would be moot if housework is generally deemed to be "women's work" regardless of whose career takes precedence.

Finally, career hierarchy may also affect wages through an income effect. Suppose a husband outearns his wife by a large amount. In this case, the wife may be more willing to trade away income for other job attributes, leading to a lower wage than would have been predicted by her own observed characteristics.

The preceding discussion suggests that an individual's secondary career status and wages are negatively related. The possibility for women is as follows:

---

$$(1) \quad \ln(\text{Wife's Wage}) = \beta_0 + \beta X + \alpha \text{SECONDARY STATUS} + \epsilon,$$

where  $X$  is a vector of sociodemographic and human capital variables and occupational dummies, and  $\text{SECONDARY STATUS}$  indicates the wife's position in her family's career hierarchy.

The estimation of Equation 1 is problematic because a direct measure of career hierarchy does not exist. The approach taken here is to use proxy variables that are likely to be correlated with career hierarchy and yet exogenous with respect to the measured wage.

---

**Second, having the secondary career in a family may increase one's likelihood of being subject to a family-related quit.**

---

Two dichotomous proxies are examined.<sup>3</sup> The first proxy for career hierarchy is based on earnings dominance Measure 2, which was constructed exclusively from career wage information (and hence is not subject to the endogeneity problem associated with creating a right hand side variable based on actual wage information). Specifically, SECONDARY STATUS = 1 if a wife is not the dominant earner and 0 otherwise, based on Measure 2.<sup>4</sup>

The second proxy is constructed from responses to the NSFH survey question about role expectations for men and women. The question reads: "It is better if the man earns the main living and the woman takes care of home and family." Note that it is worded to focus on a broad value judgement and not on the family's current situation per se, so is not likely to be subject to endogeneity problems. It is assumed that agreement with this statement is correlated with a wife's secondary career status. The SECONDARY STATUS variable equals 1 if either or both spouses agree or strongly agree and 0 otherwise.

Table 2 provides wage regression results for women using data from the 1987 NSFH, female main respondent sample. The dependent variable is the log of the wife's actual wage. In addition to the proxies for secondary status, standard control variables were included in all estimations (see bottom of Table 2). In Model 1, a negative but insignificant relationship is found between a wife's secondary career status--as indicated by Measure 2--and wages. On the other hand, it was found that secondary career status--as indicated by agreement that men and women should have traditional roles--has a negative and significant effect on wife's wages.

Additional estimations (not reported) indicate that the overall conclusions suggested by Table 2 are maintained when alternative variable specifications and samples are examined. Specifically, alternative thresholds for the proxies of secondary career status based on earnings dominance and on career attitudes were used. The percentage difference in spouses' career wages, which provides a continuous measures of earnings dominance, was also examined. Finally, all models were re-estimated using the NSFH male-main respondent sample.

---

#### IV. Conclusion

**This paper draws attention to the phenomenon of career hierarchy in the family, which is likely to become increasingly important as more women stay tied to the labor market.**

This paper draws attention to the phenomenon of career hierarchy in the family, which is likely to become increasingly important as more women stay tied to the labor market. By a variety of measures, a growing fraction of women are the dominant earners in their families. Further, this paper finds preliminary evidence of a negative relationship between secondary career status in the family and women's wage outcomes. More definitive evidence awaits a data set with a direct question regarding career hierarchy (as asked by Catalyst, 1998), coupled with the kind of detailed information provided by data sets like the NSFH.

---

An important direction for future research will be to investigate the wage effects of secondary career status on men. Another important question to be examined is to what extent career hierarchy in the family explains the observed gender wage gap, while accounting for the possibility that career hierarchy may itself be a consequence of past or anticipated labor market discrimination.

## ENDNOTES

\*Department of Economics, University of Missouri-St. Louis, St. Louis, MO 63121.

1. Several possible correlates of earnings dominance were examined. For wives with dominant earnings, a greater fraction were more highly educated than their husbands and had mothers who had worked when they were young. Husbands and wives in these families were also more likely to disagree with the traditional norm of the breadwinner husband and homemaker wife. Of these factors, only a wife's higher educational attainment was found to be a significant predictor of her being the dominant earner.
2. Results regarding changes in career hierarchy for a panel of married couples who are employed full-time, full-year in the 1987-1988 wave and the 1992-1994 wave were not presented because of concerns about the selectivity of the sample since a sizeable fraction of couples lack complete interview information.
3. Even with a proxy it is still possible that wages and career hierarchy may be related because of an unobserved factor that affects both variables. A common approach, which is to use fixed effects estimation to rid the data of individual unobserved heterogeneity, is not employed here because we do not have an adequate panel (see footnote 2).
4. Actual data on career hierarchy would have provided us with a natural, three-category measure (primary, secondary and neither). However, this is not the case with a proxy variable since any threshold set is arbitrary. Given this, a binary dummy variable that requires setting only a single threshold was used and the sensitivity of the findings to the threshold chosen was then examined.

## REFERENCES AND MATERIAL FOR FURTHER READING

- Becker, Gary. "Human Capital, Effort, and the Sexual Division of Labor." Journal of Labor Economics, January 1985, 3(1, pt. 2), pp. S33-58.
- Bureau of the Census, "Married-Couple Families with Wives' Earnings Greater than Husbands' Earnings." <http://www.census.gov/hhes/income/histinc/f19.html>. Accessed October 21, 1998.
- Catalyst, Two Careers, One Marriage: Making It Work in the Workplace. New York: Catalyst, 1998.
- Hersch, Joni and Leslie Stratton. "Housework, Fixed Effects, and Wages of Married Workers." Journal of Human Resources, forthcoming.
- Hood, Jane C. "The Provider Role: Its Meaning and Measurement." Journal of Marriage and the Family, May 1986, 48(2), pp. 349-59.
- Jacobsen, Joyce and Laurence M. Levin. "Marriage and Migration: Comparing Gains and Losses from Migration for Couples and Singles." Social Science Quarterly, September 1997, 78(3), pp. 688-709.
- Keith, Kristin and Abigail McWilliams. "Job Mobility and Gender-Based Wage Growth Differentials." Economic Inquiry, April 1997, 35(2), pp. 320-33.
- Potuchek, Jean L. Who Supports The Family? Gender and Breadwinning in Dual-Earner Marriage. Stanford, CA: Stanford University Press, 1997.
- Spitze, Glenna. "Women's Employment and Family Relations: A Review." Journal of Marriage and the Family, August 1988, 50(3), pp. 595-618.
- Winkler, Anne E. "Relative Earnings of Husbands and Wives in Dual-Earner Families," Monthly Labor Review, April 1998, 121(4), pp. 42-8.

**LIVABLE** communities don't just **HAPPEN**.  
The are **CREATED** by the **PEOPLE** who **LIVE** in them.

**Table 1: Estimates of Earnings Dominance**

	1993 CPS	NSFH, Female Main Respondent		NSFH, Male Main Respondent	
		1987 Wave	1992 Wave	1987 Wave	1992 Wave
<b>Wife Outearns Husband (%)</b>					
Actual wage comparison	25.1	22.1	33.0	27.0	27.6
“Career” (occupation) wage comp.	19.9	19.8	22.5	18.8	24.4
Actual earning comparison	20.7	18.1	24.1	20.1	20.7
<b>Earnings Dominance Measure 1 (%)</b>					
Wife’s earnings are dominant	8.2	9.4	10.3	7.8	11.3
Husband’s earnings are dominant	60.6	65.4	52.5	60.2	57.9
Neither	31.3	25.2	37.2	32.0	30.8
<b>Earnings Dominance Measure 2 (%)</b>					
Wife’s earnings are dominant	6.3	5.5	7.4	6.7	9.2
Husband’s earnings are dominant	55.3	61.3	51.2	59.8	52.0
Neither	38.4	33.2	41.4	33.5	38.9
Unweighted sample size	6095	332	457	334	435

Percentages computed using sample weights. Figures may not sum to 100 due to rounding.

**Table 2: Wife's In Wage Equations**

	(1)	(2)	(3)	(4)
Indicator of Secondary Career Status				
Wife not dominant earner (Measure 2, Table 1)	-0.087 (-0.84)			
Response to statement about attitudes*:				
Both agree		-0.16 (-2.39)		
She agrees			-0.09 (-1.68)	
He agrees				-0.13 (-2.3)
Adjusted R-squared	0.35	0.35	0.35	0.35
Sample size	307	299	299	299

Note: Sample = 1987 NSFH, female main respondent. Unweighted data. Obs. With missing values deleted. Models control for age, race, ethnicity, education, actual work experience, active in a union, government employment, number of children < 18, kid < 6, region, metro area, and occupational dummies. T-statistics are in parentheses.

\*"It is better if the man earns the main living and the woman takes care of home and family."