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### **Assessing the Effects of Ownership Change on Women and Minority Employees: Evidence from Matched Employer-Employee Data**

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**Number 0607**

**April 2006**

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First Draft  
April 2006

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## Assessing the Effects of Ownership Change on Women and Minority Employees: Evidence from Matched Employer-Employee Data

### Abstract

While there have been numerous papers on the employment and wage effects of mergers and acquisitions, there has been no direct analysis of the impact of such ownership changes on minority and female workers. This is an unexplored “equity” dimension of these transactions. We fill this gap by analyzing linked employer-employee data for the entire population of Swedish workers and approximately 16,000 manufacturing plants for the period 1985-1998. For each worker employed in these establishments (as well as the entire population of workers), we have data on gender, age, national origin, level of education, type of education, location, industrial sector, annual earnings, as well as each employee’s complete work history during the period. We also have data on numerous plant and firm-level characteristics, which allows us to control for additional factors that might result in changes in labor composition and relative compensation. Our findings suggest that ownership change does not significantly alter the relative earnings and employment status of minority and female workers.

Keywords: Mergers and Acquisitions, Human Capital, Earnings  
JEL Codes: G34, J23, J31, C81

## I. INTRODUCTION

The recent resurgence in mergers and acquisitions has focused greater attention on assessing the impact of these transactions on workers. Some scholars have asserted that corporate takeovers have deleterious effects on workers. For example, Shleifer and Summers (1987) conjecture that the new owners of a firm in the aftermath of a hostile takeover are more likely to abrogate implicit contracts with employees, with respect to wages, benefits, and pension contributions. More specifically, they assert that shareholder wealth creation arising from corporate takeovers need not reflect improvements in economic welfare or efficiency. Instead, the increase in economic performance may reflect a transfer of wealth from employees and other non-financial stakeholders to shareholders.

More generally, we may wish to assess whether there are changes in equity, as well as efficiency, in the aftermath of a merger or acquisition. One such equity issue concerns whether these transactions have differential effects on female and minority workers. There is a vast theoretical and empirical literature on discriminatory bias in labor force practices, such as hiring and compensation. There have also been numerous empirical studies of the employment and wage effects of mergers and acquisitions at the plant and firm-levels (Brown and Medoff (1988), Lichtenberg and Siegel (1987, 1990a, 1990b), McGuckin et al. (1998), McGuckin and Nguyen (2001), Conyon et al. (2002a, 2002b, 2004), and Gugler and Yurtoglu (2004)). To the best of our knowledge, these studies have not directly considered the relationship between ownership change and workforce diversity and relative compensation.

In this paper, we attempt to fill this gap by analyzing a unique file that links economic and demographic data, which allows us to assess the labor market consequences of ownership change for women and minorities. Although there have been several papers on the employment

and wage effects of mergers and acquisitions, the unit of analysis in such studies is typically the plant or firm. In contrast, the unit of observation in our study is the individual worker, which allows us to provide direct, systematic empirical evidence on the effects of ownership change on various types of workers.

The remainder of the paper is organized as follows. In the following section, we briefly review empirical studies of the employment and wage effects of ownership change and describe their limitations for assessing the impact of these transactions on workforce diversity. Section III outlines our econometric framework. Section IV describes the data and the construction of key variables. Empirical results are presented in Section V, followed by preliminary conclusions in the final section of the paper.

## **II. BRIEF REVIEW OF PLANT AND FIRM-LEVEL STUDIES OF THE EMPLOYMENT AND WAGE EFFECTS OF OWNERSHIP CHANGE**

In recent decades, there has been a substantial increase in the female labor participation rate and higher levels of educational attainment among women and minorities. In 1987, the Hudson Institute estimated that 85% of the new entrants to the labor force will be minorities and women and companies responded to this prediction.<sup>1</sup> Specifically capitalizing on these trends and outreach programs to exacerbate them, many corporations have devoted substantial resources to enhancing and managing “diversity.” Most large companies have developed an infrastructure, typically subsumed in the human resource management function, to monitor and evaluate diversity. Thus, for many firms, enhancing workforce diversity is considered to be a strategic objective.

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<sup>1</sup>See Johnston and Packer (1987).

Diversity professionals often assess performance based on an explicit consideration of the racial and gender composition of the workforce. One perspective on this issue involves examining whether the workforce is “representative,” in terms of the racial and gender profile of the population-at-large or the local labor market. Consistent with this view, managerial decisions regarding selection, retention, and promotion have been made on the basis of diversity criteria. While many companies do not have explicit quotas or targets, there is strong pressure on corporate managers to move in this direction. For many diversity professionals, a workforce that is representative constitutes an “optimal” mix of workers.

Despite the considerable attention devoted to these issues, there is a remarkable lack of empirical evidence on the relationship between diversity and changes in corporate control. Instead, such studies have focused on employment and wage effects for employees in general. Table 1 summarizes selected plant and firm-level studies of the impact of mergers and acquisitions on workers. Much of the plant-level evidence seems to indicate that ownership change does not result in statistically significant declines in the employment and wages of production workers at production establishments. The most comprehensive evidence, presented in McGuckin and Nguyen (2001), suggests that wages and employment increase after ownership change. On the other hand, Lichtenberg and Siegel (1990a) find that employment and wage growth are lower in central office or “auxiliary” establishments in the aftermath of an ownership change, suggesting that white-collar workers suffer more than blue-collar employees when such transactions occur.

Table 1 also reveals that these effects vary by type of ownership change. For instance, Baldwin (1998) reported that mergers in Canada had a negative impact on employment and compensation of non-production workers. Conyon, Girma, Thompson, and Wright (2002a)

report similar results, based on firm-level data from the U.K. The authors also find greater declines in employment associated with related mergers, relative to those associated with unrelated mergers. In a subsequent paper (Conyon, Girma, Thompson, and Wright (2004)), they report that wage increases tend to follow mergers, especially related mergers. Gugler and Yurtoglu (2004) compare the employment effects of U.S. and European mergers. The authors find that there is a 10% decline in labor demand in the aftermath of mergers involving European firms. Bhagat, Shleifer, and Vishny (1990) report that 45% of the firms involved in hostile takeovers laid off workers, affecting about 6% of the workforce.

It appears that similar patterns emerge in the aftermath of leveraged and management buyouts in the U.S. and U.K. Based on data from U.S. evidence, Lichtenberg and Siegel (1990b) report declines in levels of employment and wages of non-production workers at manufacturing plants that experience a buyout. These patterns do not emerge for production workers, however. Harris, Siegel, and Wright (2005) analyze British data and conclude that management buyouts result in a reduction in the labor intensity of production.

Bliss and Rosen (2001) analyze the effect of bank mergers on CEO compensation. They report that these ownership changes have a positive effect on CEO remuneration. In more than 75% of the transactions they observed, the post-merger increase in CEO compensation exceeded 10% of the CEO's pre-merger remuneration.

Others have directly analyzed the effects of takeovers on the compensation of non-executive employees. Mitchell and Mulherin (1989) report that only a small percentage of corporate takeovers result in pension fund terminations. Similarly, Pontiff, Shleifer, and Weisbach (1990) find that only 15% of hostile takeover bids and 8% of friendly takeover bids lead to pension fund terminations. Rosett (1990) examines whether takeovers result in labor

contract settlements that favor management, as opposed to workers. He reports that takeover activity is unrelated to wage growth. More importantly, Rosett concludes that, contrary to the Shleifer and Summers' (1988) hypothesis, the gains to shareholders arising from corporate takeovers do not appear to result from losses to employees.

Although these studies are useful, they do not address the question of how ownership change affects different types of workers. In the following section, we outline an econometric model that enables us to assess this issue.

### III. ECONOMETRIC ANALYSIS

In order to assess the impact of these transactions on “equity,” as opposed to efficiency or performance, we wish to examine two worker-related dependent variables: earnings and changes in employment status. In addition to conventional determinants of these variables, we incorporate a set of dummy variables relating to ownership change, gender, and national origin, as well as conventional determinants of these factors.

The base earnings equation that we estimate is:

$$(1) \ln(\text{EARN})_{iet+1} = \alpha + \beta \ln(\text{EARN})_{iet-1} + \gamma \text{OC}_t + \delta \mathbf{X}_{it-1} + \phi \mathbf{Y}_{et-1} + \lambda_t + \varepsilon_{it}$$

where  $\alpha$  is an intercept term, EARN denotes the annual earnings of individual  $i$  working in establishment  $e$  of firm  $f$  in year  $t+1$  or year  $t-1$ ,  $\text{OC}_t$  is a dummy variable equal to 1 if the plant experiences an ownership change in year  $t$  or 0 otherwise,  $\mathbf{X}_{it}$  is a vector of *individual-specific* characteristics,  $\mathbf{Y}_{et}$  is a vector of *establishment-specific* characteristics,  $\delta$  and  $\phi$  are vectors of coefficients,  $\lambda_t$  is a year-specific fixed effect, and  $\varepsilon_{it}$  is the remaining classical disturbance term.

The vector of individual-specific factors  $\mathbf{X}_{it}$  includes dummy variables for gender, national origin, employee age, categories of educational attainment, field of education, location,



and industry of occupation, along with a continuous measure of employee experience.<sup>2</sup> In our econometric analysis, we also interact the ownership change dummy variable with the gender and national origin variables, in order to determine whether these transactions have differential effects on various types of workers. The establishment-specific variables,  $\mathbf{Y}_{et}$ , are plant age dummy variables (with separate dummies for each year of age), plant size (as measured by both the logarithm of employment and the logarithm of total sales), and plant average employee earnings.<sup>3</sup> Industry dummies are included at the employee level, allowing industrial occupation to differ among workers in each plant.

We also wish to estimate the relationship between ownership change and employment status following these transactions for various types of workers. To assess this issue, we estimate a multinomial logit equation of the following form:

$$(2) \text{Prob}(\text{EMPSTATUS}_{jiet+1}) = \alpha + \beta \ln(\text{EARN})_{iet-1} + \gamma \text{OC}_t + \delta \mathbf{X}_{it-1} + \phi \mathbf{Y}_{et-1} + \lambda_t + \varepsilon_{it}$$

where EMPSTATUS refers to employment status  $j$  in year  $t + 1$  of individual  $i$  who was employed in establishment  $e$  as of year  $t-1$ , and the other variables are defined as in equation (1). There are three possible employment statuses: a worker can be employed by the original or acquiring organization, employed by another organization, or unemployed.

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<sup>2</sup> Age is treated as a dummy variable because very young and very old workers in Sweden are often subject to mandatory restrictions on compensation.

<sup>3</sup> The year of establishment formation is unavailable in the data, so age dummies are included for establishments that enter after the first year of the sample, and separate dummies for establishments present in the first year are included for each calendar year (implying grouped ages 1 and up, 2 and up, etc. in successive years).

#### IV. DATA

Our empirical analysis is based on linked, longitudinal employer-employee data on Swedish workers and plants that employ them. The file covers every non-farm employee in Sweden in every year from 1985 to 1998. The full database contains 36,398,617 records across the 14 years of data, for an average of 2.6 million workers per year, consistent with the Swedish population of close to 9 million. Establishment level data are available for the majority of employees if and when they were employed in the manufacturing sector, so that 9,251,962 records have matching information available about the employee's plant (and usually firm) workplace.

The database facilitates our investigation of employment status and earnings. Employment is recorded each year in November, and given that the database covers virtually all employees, we infer that a worker whose record is missing in a given year was not employed (the phrase "in non-farm activities" is hereafter omitted) in Sweden during that year. Annual earnings are recorded from employees' official tax filings, and are divided into earnings paid by an organization versus self-employment and other earnings.<sup>4</sup> Self-employment income serves as a proxy for whether the employee was self-employed, and we use the two sources of income to divide each working employee into one of three categories in each year: organizationally employed, self-employed, or both.

For individual employees, the data include the person's gender, national origin, age, geographic location, year of last educational exam, categorical variables for educational attainment and field of education, and 5-digit SIC industry classification of employment. In a previous paper (Siegel, Simons, and Lindstrom (2005)), we used parts of this information to construct plant-level measures of workforce characteristics, such as the percentage of workers

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<sup>4</sup> The data do not include hours worked or hourly wages, only annual total income, for specific employees.

who are female, the percentage who were born in Sweden versus immigrated, the mean age of employees, mean experience as proxied by years elapsed since last year of education, and the percentage of employees with at least some college-level education. Here we use the employee-specific data in each year as controls and to check for possible differences in effects of ownership change across different types of people.

Each record contains data on gender and the national origin of the employee. National origin is based on birthplace, divided between Sweden, other Nordic countries, the remainder of Europe, and five other world regions, Asia, Africa, North America, South America, and other nations. Employees' geographic locations, available for 99.6% of records, correspond to 338 local governments. Educational attainment and broad field of educational are likewise recorded categorically, and are available for 97% of records. Attainment is categorized as 0-8 years, 9-10 years (obligatory in Sweden), 11-12 years, 13-14 years (equivalent to a normal high school education similar to U.S. grade twelve), college or university education for one to two years (including extended high school engineering programs), college or university education for three or more years but not PhD education, or PhD education. Field of education is categorized as basic (general) education; esthetics, language, and religion; pedagogy; trade, office, economic, social, and behavioral degrees; industry-relevant education including handcrafts, engineering, mathematics, physics, chemistry, and biology; transportation and communication; caring including nursing, child care, and geriatric care; farming, gardening, forestry, and fishing; general service skills including private guards and military service; or other areas of education.

The data record the year of an employee's last educational examination in 45% of records, and a proxy for employee work experience is constructed in these cases as the logarithm of the number of years (including the last educational year) since finishing education. This

proxy for experience is likely to be an adequate control despite the paucity of information on educational examination year, because examination year information is mainly lacking among older employees, for whom age dummies (also included as control variables) provide a good proxy for experience. The proxy for years of work experience may be better for male employees than female employees because males are more likely to work throughout the period following the last exam year, and accordingly we also include an interaction between years of experience and gender. The employee's current industry classification of activity, available in 97.6% of records, divides employees into one of 123 2-digit categories based on either 1969 Standard Industrial Classification (SIC) codes, used where available, or 1992 SIC codes, used in later years. Given that 1969 and 1992 industrial classifications cannot be matched precisely, separate categories are used for 1969 versus 1992 industry codes.<sup>5</sup> Categorical variables (gender, national origin, geographic locations, educational attainment, field of education, and industry) are represented in our analyses using 0-1 dummy variables.

Although employee, plant, or firm data are missing for some observations, we do not exclude any records from the sample on the basis of missing data, to avoid any potential sample selection bias. Instead, we set the values of missing variables equal to the population mean or zero, and add dummy variables that equal one when the relevant type of data is unavailable or zero otherwise. Hence all these variables are used as controls to the full extent possible, while records with missing observations are allowed a constant shift parameter in case they differ on average from records with available information.

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<sup>5</sup> This makes the industry categories perfectly multi-collinear with the year-specific dummy variables, requiring that an appropriately chosen dummy variable be dropped from the model, with the ramification that estimated coefficients of year and industry dummy variables cannot be construed to have their obvious meanings and hence are not reported but simply used as controls.

Following conventional international standards, the plant or establishment is defined as a physically independent unit within a firm. Firms that are involved in multiple activities at the same physical address report separate figures for each activity, which are then assigned to a separate facility. In most cases, however, firms focus on a single activity, implying that the local units are seldom split into several plants. Plants that were considered to be “non-active” and “help plants,” such as sales offices (or what would be considered “auxiliary” establishments in the U.S.), were also excluded from the data.

Employment status is measured as follows. Individuals were defined to have maintained their existing employment if they were employed in  $t+1$  at the same plant as in  $t-1$  or if they were employed in another plant owned by either their original employer or by the acquirer of their original plant. Employees were defined to have found new employment if they reported employment in any other firm. The remaining individuals are classified as unemployed. It should be noted that the employees who found new jobs or became unemployed were not necessarily fired. These employees may simply have found another job, retired, or left their previous job for any number of personal reasons.

## **V. EMPIRICAL RESULTS**

To assess the effects of ownership change on workers, we exploit the longitudinal nature of our data by analyzing employees before and after these transactions. In the top panel of Table 2, we present descriptive statistics on employees who were employed at manufacturing plants that are destined to experience an ownership change in the following year. For comparative purposes, we have also constructed descriptive statistics on a random sample of employees who do not experience an ownership change in the following year. Descriptive statistics for this

random sample of workers are presented in the bottom panel of Table 2. Corresponding statistics for employees who are observed in the year following an ownership change are presented in the top panel of Table 3. Once again, we also report descriptive statistics for a random sample of employees who did not experience an ownership change in the preceding year in the bottom panel of Table 3.

Table 2 reveals that in the ownership change sample, 86.5% of the workers are of Swedish origin and 27.4% are female. The average level of experience is 9.51 years and the mean yearly earnings is 147,000 SEK. Within this group some differences between the nationalities emerge. The figures reveal that, on average (without controlling for human capital variables), non-Swedish employees earn less than Swedish employees. African, South American, and especially Asian employees appear to earn, on average, significantly less than other non-Swedish employees. These employees also have the least experience. Other European employees have, on average, nearly 4 more years of experience than their Swedish counterparts, but still earn close to 10% less.

The sample is compared with 447,411 individual-year combinations randomly selected from the population of manufacturing employees whose plants will not be sold in the following year. It appears that workers whose establishments are destined to be sold have lower mean levels of education, experience, and earnings than the random sample of manufacturing workers. Note that these differentials hold for each national origin category (with the exception of “rest of world” for experience). Similar patterns emerge in Table 3, which presents descriptive statistics on workers who are observed in the aftermath of an ownership change.

In the top panel of Table 4, we present descriptive statistics on the mobility of workers whose establishments were sold in the previous year. The bottom panel of this table contains

descriptive statistics for a random sample of workers whose plants did not experience an ownership change. Several stylized facts emerge. It appears that mergers and acquisitions result in a substantial increase in worker mobility. We also find that all types of workers are more likely to become unemployed when ownership change occurs, a result that is consistent with previous plant and firm-level studies reporting that mergers and acquisitions result in downsizing (Conyon, Girma, Thompson, Wright (2002a), Siegel, Simons, and Lindstrom (2005)).

There is substantial variation in worker outcomes across the different national origin categories. In fact, all of the minority groups exhibit substantially higher unemployment probabilities. North Americans and Asians in particular stand out as being especially likely to become unemployed (in Sweden) after a merger or acquisition. In both the ownership change sample and the random sample, it is evident that all of the Non-European groups exhibit substantially lower probabilities than Europeans (including Nordic and Swedish groups) of maintaining employment in the same plant. While the reasons for this are not clear, the effect is 5%-15%, which is substantial.

Although the descriptive patterns presented in Tables 2, 3, and 4 are interesting, they do not include controls for the determinants of changes in earnings and worker mobility. Table 5 presents parameter estimates from regressions of the earnings equation. The OLS estimates of the earning equations are based on the specification outlined in equation (1). In Column (1), we constrain the effects of ownership change to be the same for all workers. In Column (2) we relax that restriction, allowing the effects of ownership change to differ for females and non-Swedes. Note that, as expected from human capital theory, the coefficients on lagged earnings and a set of dummy variables for post-secondary education (not shown on the table) are all positive and highly statistically significant. Contrary to expectations, the coefficient on experience is

negative and significant. We also find that on average, women earn 19.3% less than men, controlling for the above variables plus location, industry, age, education, and experience. Foreign-born employees also appear to earn significantly lower wages than their Swedish counterparts, especially Asian and South American workers.

We now focus our attention on the coefficients on the ownership change dummy variables and the interaction terms with the gender and national origin variables, shown in column (2). Consistent with previous plant-level studies (e.g., Siegel, Simons, and Lindstrom (2005)), we find that ownership change is associated with a reduction in earnings. On average, there appears to be a 1.5% (1.3% including the interaction terms) decline in earnings growth (relative to employees whose plant did not experience ownership change) between the year prior to the change and the year after the change.

However, it is interesting to note that almost all of the interaction terms involving ownership change, gender, and national origin are statistically insignificant. The exception is the interaction term involving workers who were born in other European countries. Thus, although women and minorities have lower earnings growth than male Swedish employees (controlling for age, education, and experience), mergers and acquisitions do not appear to exacerbate this inequality.

Next, we turn to a different dependent variable: employments the probability of unemployment. These multinomial logit regression findings are presented in Table 6. Recall that there are three possible employment statuses: a worker can be employed by the original or acquiring organization, employed by another organization, or unemployed. In the multinomial logit regressions, the base case is being employed by the same firm or by the new owner. Once again, we estimate variants of the model: In Columns (1) and (2), the effects of ownership



change are constrained to be the same for all workers, while in Columns (3) and (4), the effects of ownership change are allowed to differ for females and non-Swedes.

The results imply that the probability of moving to another firm or becoming unemployed declines with higher earnings and experience. It also appears that women are less likely, *ceteris paribus*, to leave the organization or being unemployed. Most importantly, we find that mergers and acquisitions significantly increase the likelihood of inter-firm mobility and unemployment. Note that the interaction terms between the ownership change, gender, and minority variables are almost all not positive and significant (with the exception of the interactions between the ownership change dummy variables and the dummies for European origin for switching to another firm and North American origin for unemployment). Indeed, the findings strongly suggest that ownership change reduces the likelihood that female workers will be transferred to another firm or fired (both interaction terms are negative and highly significant). In general, the results imply that women and minority do not experience a greater incidence of unemployment or firm transfer due to ownership change.

## **VI. PRELIMINARY CONCLUSIONS**

Although there have been numerous papers on the employment and wage effects of mergers and acquisitions, there has been no direct analysis of the impact of such ownership changes on minority and female workers. This is an unexplored “equity” dimension of these transactions. Shleifer and Summers (1987) assert that in order to accurately assess the welfare implications of changes in corporate ownership, researchers must also assess equity effects. Given data constraints, this has been a difficult, if not impossible, assignment.

To accomplish this objective, we analyze linked employer-employee data for the entire population of Swedish workers and approximately 16,000 manufacturing plants for the period 1985-1998, which allows us to control for additional factors that might result in changes in labor composition and relative compensation. Our findings suggest that ownership change does not significantly reduce the relative earnings and employment status of women and minority workers. Although we confirm the existence of wage and employment status disparities, mergers and acquisitions do not appear to exacerbate these inequalities.

### References

- Bhagat, Sanjai, Andrei Shleifer, and Robert W. Vishny (1990). "Hostile Takeovers in the 1980s: The Return to Corporate Specialization," *Brookings Papers on Economic Activity: Microeconomics* 1990, pp. 1-72.
- Black, Sandra E. and Lisa M. Lynch (2001). "How to Compete: The Impact of Workplace Practices and Information Technology on Productivity," *The Review of Economics and Statistics*, Vol. 83, No. 3, pp. 434-445.
- Bliss, Richard T. and Richard J. Rosen (2001). "CEO Compensation and Bank Mergers," *Journal of Financial Economics*, Vol. 61, No. 1, pp. 107-138.
- Bresnahan, Timothy F., Erik Brynjolfsson, and Loren M. Hitt (2002). Information Technology, Workplace Organization, and the Demand for Skilled Labor: Firm Level Evidence. *Quarterly Journal of Economics*, Vol. 117, 339-376.
- Brockner, Joel (1988). "The Effects of Work Layoffs on Survivors: Research, Theory and Practice," in (B.M. Staw and L.L. Cummings (eds.)) *Research in Organizational Behavior* (Vol. 10, pp. 213-255), Greenwich, CT: JAI Press.
- Brockner, Joel, Steven Grover, Tom Reed, Rocki DeWitt, and M. O'Malley (1987). "Survivors Reactions to Layoffs: We Get By With a Little Help From Our Friends," *Administrative Science Quarterly*, Vol. 32, pp. 526-542.
- Brown, Charles and James L. Medoff (1988). "The Impact of Firm Acquisition on Labor," in (Alan J. Auerbach (ed.)) *Corporate Takeovers: Causes and Consequences*, Chicago, IL: University of Chicago Press, pp. 9-31.
- Cappelli, Peter and David Neumark (2001). "Do 'High Performance' Work Practices Improve Establishment Outcomes?," *Industrial and Labor Relations Review*, Vol. 46, pp. 31-49.
- Canyon, Martin, Sourafel Girma, Steve Thompson, and Peter W. Wright (2002a). "The Impact of Mergers and Acquisitions on Company Employment in the United Kingdom," *European Economic Review*, Vol. 46, pp. 31-49.
- Canyon, Martin, Sourafel Girma, Steve Thompson, and Peter W. Wright (2002b). "Do Hostile Mergers Destroy Jobs?" *Journal of Economic Behavior and Organization*, Vol. 45, pp. 427-440.
- Canyon, Martin, Sourafel Girma, Steve Thompson, and Peter W. Wright (2004). "Do Wages Rise or Fall After Merger?," *Oxford Bulletin of Economics and Statistics*, Vol. 66, No. 5, pp. 847-862.
- Gugler, Klaus and B. Burcin Yurtoglu (2004). "The Effect of Mergers on Company Employment in the USA and Europe," *International Journal of Industrial Organization*, Vol. 22, pp. 481-502.
- Harris, Richard I.D., Donald S. Siegel, and Mike Wright (2005). "Assessing the Impact of Management Buyouts on Economic Efficiency: Plant-Level Evidence from the United Kingdom," *The Review of Economics and Statistics*, Vol. 87, No. 1, pp. 148-153.
- Holmes, Thomas J. and James A Schmitz, Jr. (1990). "A Theory of Entrepreneurship and Its Application to the Study of Business Transfer," *Journal of Political Economy*, Vol. 98, No. 2, pp. 265-294.

- Johnston, William B. and Arnold H. Packer (1987). Workforce 2000: Work and Workers for the 21<sup>st</sup> Century, Hudson Institute, Indianapolis, IN.
- Jovanovic, Boyan and Peter Rousseau (2002). "Mergers as Reallocation," NBER Working Paper #9279.
- Lichtenberg, Frank and Donald Siegel (1990b). "Productivity and Changes in Ownership of Manufacturing Plants," Brookings Papers on Economic Activity, 1987:3, pp. 643-673.
- Lichtenberg, Frank and Donald Siegel (1990b). "The Effect of Ownership Changes on the Employment and Wages of Central Office and Other Personnel," Journal of Law and Economics, Vol. 33, No. 2, pp. 383-408.
- McGuckin, Robert H. and Sang V. Nguyen (2001). "The Impact of Ownership Change: A View from Labor Markets," International Journal of Industrial Organization, Vol. 19, No. 5, pp. 739-762.
- McGuckin, Robert H., Sang V. Nguyen, and Arnold P. Reznick (1998). "On the Impact of Ownership Change on Labor: Evidence from Food Manufacturing Plant Data," in John Haltiwanger, Marilyn Manser, and Robert Topel (Eds.), Labor Statistics Measurement, National Bureau of Economic Research, Studies in Income and Wealth, Volume 60, Chicago: University of Chicago Press, pp. 207-246.
- Mitchell, Mark L. and J. Harold Mulherin (1989). "The Stock Price Response to Pension Terminations and the Relation of Terminations With Corporate Takeovers," Financial Management, Vol. 18, No. 3, Autumn 1989, pp. 41-56.
- Pontiff, Jeffrey, Andrei Shleifer, and Michael Weisbach (1990). "Reversion of Pension Assets After Takeovers," Rand Journal of Economics, Vol. 21, No. 4, Winter 1990, pp. 610-613.
- Rosett, Joshua G. (1990). "Do Union Wealth Concessions Explain Takeover Premiums? The Evidence on Contract Wages," Journal of Financial Economics, Vol. 27, No. 1, pp. 263-282.
- Shleifer, Andrei and Lawrence Summers (1988). "Breach of Trust in Hostile Takeovers," in (Alan J. Auerbach (ed.)) Corporate Takeovers: Causes and Consequences, Chicago, IL: University of Chicago Press, pp. 33-59.
- Siegel, Donald S. (1999). Skill-Biased Technological Change: Evidence from a Firm-Level Survey, W. E. Upjohn Institute for Employment Research, Kalamazoo, MI: W.E. Upjohn Institute Press, 1999.
- Siegel, Donald S., Kenneth L. Simons, and Tomas Lindstrom (2005). "Ownership Change, Productivity, and Human Capital: New Evidence from Matched Employer-Employee Data in Swedish Manufacturing," paper presented at the NBER/CRIW Conference on "Producer Dynamics: New Evidence from Micro Data," Bethesda, MD, April 8-9, 2005.

Table 1  
Selected Studies of the Effects of Mergers and Acquisitions on Employment and Compensation

Authors	Nature of Transactions	Findings
Lichtenberg and Siegel (1987)	Changes in Ownership of Manufacturing Plants	Labor Input Growth Rates Were Lower For Plants Changing Owners Than Comparable Plants <u>Before</u> the Transaction; Slightly Higher After the Transaction
Brown and Medoff (1988)	3 Types of Ownership Change Involving Firms : Simple Sales, Assets-Only Sales, Mergers	Simple Sales: 9% Increase in Employment, 5% Decline in Wages; Assets-Only Sale: 5% Decline in Employment, 5% Increase in Wages; Mergers: 2% Increase in Employment, 4% Decline in Wages
Mitchell and Mulherin (1989)	Corporate Takeovers	A Small Percentage of Takeovers Result in Pension Fund Terminations
Bhagat, Shleifer, and Vishny (1990)	Hostile Takeovers of Firms	45% of the Firms Involved in Hostile Takeovers Laid Off Workers (Approximately 6% of the Workforce)
Pontiff, Shleifer, and Weisbach (1990)	Tender Offers (Corporate Takeovers)	15% of Hostile Takeover Bids and 8% of Friendly Takeover Bids Result in Pension Fund Terminations
Lichtenberg and Siegel (1990a)	Plant-Level Analysis of Leveraged Buyouts (LBOs) and Management Buyouts (MBOs) of Divisions and Firms	Employment and Wages of Non-production Workers at Plants (But Not Production Workers) Declines After an LBO or MBO
Lichtenberg and Siegel (1990b)	Changes in Ownership of Manufacturing Plants and Auxiliary Establishments	Employment and Wage Growth is Significantly Lower in Auxiliary Establishments Changing Owners Than in Those Not Changing Owners, But Not for R&D Employees; Much Smaller Effects at Production Establishments
Rosett (1990)	Corporate Takeovers	Gains to Shareholders Arising From Corporate Takeovers Do Not Appear to be the Result of Losses to Employees
Baldwin (1998)	Related and Unrelated Mergers; Spin-offs	Mergers and Spin-offs Had Very Little Impact on Labor Costs; Related Mergers Had a Positive Impact on Wages; Mergers Had A Negative Impact on Employment and Compensation of Non-Production Workers

Table 1 (cont.)

## Selected Studies of the Effects of Mergers and Acquisitions on Employment and Compensation

Authors	Nature of Transactions	Findings
McGuckin, and Nguyen (2001)	Changes in Ownership of Manufacturing Plants	For Representative Plants, Wages and Employment Increase After Ownership Change; Effects Worse For Workers in Large Plants
Bliss and Rosen (2001)	Bank Mergers	Mergers Have a Positive Effect on CEO Compensation; More Than 75% of The Mergers Led To An Increase in CEO Compensation Exceeding 10%
Canyon, Girma, Thompson, Wright (2002a)	Related and Unrelated Mergers	19% Decline in Employment for Related Mergers; 8% Decline in Employment for Unrelated Mergers
Canyon, Girma, Thompson, Wright (2004)	Related and Unrelated Mergers	Increases in Wages For All Mergers, But Especially for Related Mergers
Gugler and Yurtoglu (2004)	Mergers	Mergers Do Not Reduce Labor Demand in the U.S.; There is a 10% Decline in Labor Demand in Europe in the Aftermath of Mergers
Harris, Siegel, and Wright (2005)	Management Buyouts (MBOs)	Plants Involved in an MBO Experience a Substantial Reduction in Employment

**Table 2**  
**Descriptive Statistics For Employees at Plants That Will Be Sold in the Following Year**

	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Number of Observations	443,543	383,528	60,015	31,602	18,345	1,276	5,853	600	1,990	349
Percent of Sample	100.00%	86.47%	13.53%	7.12%	4.14%	0.29%	1.32%	0.14%	0.45%	0.08%
Percent Female	27.36%	26.58%	32.35%	34.15%	32.59%	16.54%	28.34%	25.83%	25.23%	33.24%
Average Experience (Years)	9.51	9.39	10.72	10.46	13.30	7.89	7.35	9.18	5.59	11.63
Percent with Post High School Education	57.6%	59.7%	44.0%	38.8%	52.4%	46.1%	42.2%	53.3%	50.0%	48.1%
Average Earnings (SEK)	146,866 kr	149,040 kr	132,978 kr	136,104 kr	134,984 kr	122,041 kr	114,100 kr	143,368 kr	124,230 kr	133,112 kr

**Descriptive Statistics For A Random Sample of Employees That Will Not Be Sold in the Following Year**

	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Number of Observations	447,411	390,914	56,497	29,723	17,581	1,116	5,337	612	1,771	357
Percent of Sample	100.00%	87.37%	12.63%	6.64%	3.93%	0.25%	1.19%	0.14%	0.40%	0.08%
Percent Female	26.64%	25.81%	32.44%	33.96%	32.60%	18.64%	29.12%	25.65%	25.69%	36.69%
Average Experience (Years)	9.76	9.62	11.29	11.00	13.81	8.41	7.99	9.41	9.04	9.71
Percent with Post High School Education	59.4%	61.3%	46.6%	40.7%	54.9%	53.8%	53.8%	60.1%	55.1%	48.7%
Average Earnings (SEK)	153,138 kr	155,130 kr	139,358 kr	141,471 kr	142,406 kr	131,267 kr	117,984 kr	163,171 kr	134,959 kr	139,114 kr

Table 3  
Descriptive Statistics For Workers at Plants That Were Sold in the Previous Year

	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Number of Observations	340,840	297,212	43,628	23,558	13,467	869	3,771	389	1,334	240
Percent of Sample	100.00%	87.20%	12.80%	6.91%	3.95%	0.25%	1.11%	0.11%	0.39%	0.07%
Percent Female	26.02%	25.17%	31.79%	20.68%	31.51%	16.69%	29.49%	24.16%	24.29%	34.17%
Average Experience (Years)	11.62	11.46	13.08	12.49	15.76	10.01	9.79	11.91	11.08	13.07
Percent with Post High School Education	60.5%	62.1%	49.1%	42.9%	58.3%	53.9%	48.9%	66.1%	59.3%	52.5%
Average Earnings (SEK)	171,853 kr	173,491 kr	157,434 kr	158,819 kr	158,172 kr	155,442 kr	145,128 kr	177,389 kr	155,407 kr	159,603 kr

Descriptive Statistics For A Random Sample of Employees at Plants That Were Not Sold in the Previous Year

	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Number of Observations	343,963	302,726	41,237	22,291	12,915	750	3,432	419	1,173	257
Percent of Sample	100.00%	88.01%	11.99%	6.48%	3.75%	0.22%	1.00%	0.12%	0.34%	0.07%
Percent Female	25.55%	24.69%	31.87%	33.55%	31.64%	18.53%	28.09%	26.25%	23.61%	33.85%
Average Experience (Years)	11.70	11.55	13.30	12.94	15.83	10.25	9.78	11.30	10.88	12.02
Percent with Post High School Education	61.2%	62.7%	49.9%	43.3%	58.4%	60.4%	51.7%	66.3%	63.4%	53.7%
Average Earnings (SEK)	175,648 kr	177,770 kr	160,076 kr	161,182 kr	160,641 kr	161,376 kr	146,210 kr	179,795 kr	165,317 kr	161,059 kr



**Table 4**  
**Where Do Workers Go?**

**Employment Status of Workers Whose Plants Were Sold in the Previous Year**

<b>Employment Status in Year t+1</b>	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Employed in Same Plant	62.77%	63.25%	59.85%	61.16%	61.18%	54.08%	52.92%	47.28%	54.85%	54.43%
Employed in Different Plant Owned by Same Firm	2.21%	2.20%	2.26%	3.12%	1.54%	0.51%	0.67%	1.81%	1.00%	2.53%
Employed in Different Plant Owned by OC Firm	2.48%	2.50%	2.33%	2.20%	2.40%	4.68%	2.51%	2.36%	1.83%	1.90%
Employed in Same 4-digit Industry	2.79%	2.78%	2.80%	2.94%	2.65%	3.23%	2.38%	3.44%	2.72%	3.16%
Employed in other Manufacturing or Mining Industry	5.89%	5.93%	5.65%	5.45%	6.27%	3.91%	5.43%	3.80%	5.82%	3.80%
Employed in Industry other than Manufacturing or Mining	5.86%	6.13%	4.22%	4.04%	3.99%	5.19%	4.89%	7.79%	5.49%	4.75%
Employed in an Unknown Industry	0.04%	0.04%	0.03%	0.03%	0.04%	0.00%	0.04%	0.00%	0.00%	0.00%
Unemployed or Employed Outside of Sweden	17.96%	17.16%	22.85%	21.06%	21.84%	28.41%	31.17%	33.52%	28.28%	29.43%

**Employment Status of A Random Sample of Workers Whose Plants Were Not Sold in the Previous Year**

<b>Employment Status in Year t+1</b>	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Employed in Same Plant	71.92%	72.38%	68.79%	70.08%	70.77%	62.32%	58.82%	61.25%	63.00%	67.56%
Employed in Different Plant Owned by Same Firm	2.21%	2.18%	2.38%	2.57%	2.23%	2.85%	2.12%	2.21%	1.35%	2.08%
Employed in Different Plant Owned by OC Firm	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Employed in Same 4-digit Industry	2.03%	2.02%	2.07%	2.33%	1.67%	1.93%	1.98%	1.85%	2.12%	2.08%
Employed in other Manufacturing or Mining Industry	4.30%	4.37%	3.84%	3.89%	3.45%	4.38%	4.71%	2.77%	4.89%	2.08%
Employed in Industry other than Manufacturing or Mining	4.97%	5.19%	3.49%	3.13%	3.44%	3.87%	4.65%	8.49%	4.76%	3.87%
Employed in an Unknown Industry	0.04%	0.04%	0.03%	0.05%	0.03%	0.00%	0.02%	0.00%	0.00%	0.00%
Unemployed or Employed Outside of Sweden	14.53%	13.82%	19.38%	17.96%	18.41%	24.64%	27.71%	23.44%	23.88%	22.33%

**Table 2**  
**Descriptive Statistics For Employees at Plants That Will Be Sold in the Following Year**

	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Number of Observations	443,543	383,528	60,015	31,602	18,345	1,276	5,853	600	1,990	349
Percent of Sample	100.00%	86.47%	13.53%	7.12%	4.14%	0.29%	1.32%	0.14%	0.45%	0.08%
Percent Female	27.36%	26.58%	32.35%	34.15%	32.59%	16.54%	28.34%	25.83%	25.23%	33.24%
Average Experience (Years)	9.51	9.39	10.72	10.46	13.30	7.89	7.35	9.18	5.59	11.63
Percent with Post High School Education	57.6%	59.7%	44.0%	38.8%	52.4%	46.1%	42.2%	53.3%	50.0%	48.1%
Average Earnings (SEK)	146,866 kr	149,040 kr	132,978 kr	136,104 kr	134,984 kr	122,041 kr	114,100 kr	143,368 kr	124,230 kr	133,112 kr

**Descriptive Statistics For A Random Sample of Employees That Will Not Be Sold in the Following Year**

	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Number of Observations	447,411	390,914	56,497	29,723	17,581	1,116	5,337	612	1,771	357
Percent of Sample	100.00%	87.37%	12.63%	6.64%	3.93%	0.25%	1.19%	0.14%	0.40%	0.08%
Percent Female	26.64%	25.81%	32.44%	33.96%	32.60%	18.64%	29.12%	25.65%	25.69%	36.69%
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Percent with Post High School Education	59.4%	61.3%	46.6%	40.7%	54.9%	53.8%	53.8%	60.1%	55.1%	48.7%
Average Earnings (SEK)	153,138 kr	155,130 kr	139,358 kr	141,471 kr	142,406 kr	131,267 kr	117,984 kr	163,171 kr	134,959 kr	139,114 kr

Table 3  
Descriptive Statistics For Workers at Plants That Were Sold in the Previous Year

	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Number of Observations	340,840	297,212	43,628	23,558	13,467	869	3,771	389	1,334	240
Percent of Sample	100.00%	87.20%	12.80%	6.91%	3.95%	0.25%	1.11%	0.11%	0.39%	0.07%
Percent Female	26.02%	25.17%	31.79%	20.68%	31.51%	16.69%	29.49%	24.16%	24.29%	34.17%
Average Experience (Years)	11.62	11.46	13.08	12.49	15.76	10.01	9.79	11.91	11.08	13.07
Percent with Post High School Education	60.5%	62.1%	49.1%	42.9%	58.3%	53.9%	48.9%	66.1%	59.3%	52.5%
Average Earnings (SEK)	171,853 kr	173,491 kr	157,434 kr	158,819 kr	158,172 kr	155,442 kr	145,128 kr	177,389 kr	155,407 kr	159,603 kr

Descriptive Statistics For A Random Sample of Employees at Plants That Were Not Sold in the Previous Year

	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Number of Observations	343,963	302,726	41,237	22,291	12,915	750	3,432	419	1,173	257
Percent of Sample	100.00%	88.01%	11.99%	6.48%	3.75%	0.22%	1.00%	0.12%	0.34%	0.07%
Percent Female	25.55%	24.69%	31.87%	33.55%	31.64%	18.53%	28.09%	26.25%	23.61%	33.85%
Average Experience (Years)	11.70	11.55	13.30	12.94	15.83	10.25	9.78	11.30	10.88	12.02
Percent with Post High School Education	61.2%	62.7%	49.9%	43.3%	58.4%	60.4%	51.7%	66.3%	63.4%	53.7%
Average Earnings (SEK)	175,648 kr	177,770 kr	160,076 kr	161,182 kr	160,641 kr	161,376 kr	146,210 kr	179,795 kr	165,317 kr	161,059 kr

Table 4  
Where Do Workers Go?

Employment Status of Workers Whose Plants Were Sold in the Previous Year

<b>Employment Status in Year t+1</b>	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Employed in Same Plant	62.77%	63.25%	59.85%	61.16%	61.18%	54.08%	52.92%	47.28%	54.85%	54.43%
Employed in Different Plant Owned by Same Firm	2.21%	2.20%	2.26%	3.12%	1.54%	0.51%	0.67%	1.81%	1.00%	2.53%
Employed in Different Plant Owned by OC Firm	2.48%	2.50%	2.33%	2.20%	2.40%	4.68%	2.51%	2.36%	1.83%	1.90%
Employed in Same 4-digit Industry	2.79%	2.78%	2.80%	2.94%	2.65%	3.23%	2.38%	3.44%	2.72%	3.16%
Employed in other Manufacturing or Mining Industry	5.89%	5.93%	5.65%	5.45%	6.27%	3.91%	5.43%	3.80%	5.82%	3.80%
Employed in Industry other than Manufacturing or Mining	5.86%	6.13%	4.22%	4.04%	3.99%	5.19%	4.89%	7.79%	5.49%	4.75%
Employed in an Unknown Industry	0.04%	0.04%	0.03%	0.03%	0.04%	0.00%	0.04%	0.00%	0.00%	0.00%
Unemployed or Employed Outside of Sweden	17.96%	17.16%	22.85%	21.06%	21.84%	28.41%	31.17%	33.52%	28.28%	29.43%

Employment Status of A Random Sample of Workers Whose Plants Were Not Sold in the Previous Year

<b>Employment Status in Year t+1</b>	<b>All</b>	<b>Swedish</b>	<b>All Non-Swedish</b>	<b>Nordic</b>	<b>European</b>	<b>African</b>	<b>Asian</b>	<b>North American</b>	<b>South American</b>	<b>Rest Of World</b>
Employed in Same Plant	71.92%	72.38%	68.79%	70.08%	70.77%	62.32%	58.82%	61.25%	63.00%	67.56%
Employed in Different Plant Owned by Same Firm	2.21%	2.18%	2.38%	2.57%	2.23%	2.85%	2.12%	2.21%	1.35%	2.08%
Employed in Different Plant Owned by OC Firm	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Employed in Same 4-digit Industry	2.03%	2.02%	2.07%	2.33%	1.67%	1.93%	1.98%	1.85%	2.12%	2.08%
Employed in other Manufacturing or Mining Industry	4.30%	4.37%	3.84%	3.89%	3.45%	4.38%	4.71%	2.77%	4.89%	2.08%
Employed in Industry other than Manufacturing or Mining	4.97%	5.19%	3.49%	3.13%	3.44%	3.87%	4.65%	8.49%	4.76%	3.87%
Employed in an Unknown Industry	0.04%	0.04%	0.03%	0.05%	0.03%	0.00%	0.02%	0.00%	0.00%	0.00%
Unemployed or Employed Outside of Sweden	14.53%	13.82%	19.38%	17.96%	18.41%	24.64%	27.71%	23.44%	23.88%	22.33%

**Table 5**  
**OLS Estimates of Earnings Equations**  
**Dependent Variable: Log Earnings in the Year After An Ownership Change**

Coefficient on:	Ownership Change Effects Same for All Individuals	Ownership Change Effects Allowed to Differ For Females and Non-Swedes
Log (t-1) Earnings	.557*** (.003)	.557*** (.003)
Log Experience	-.016*** (.002)	-.016*** (.002)
Log Experience * Female	-.012*** (.001)	-.012*** (.001)
Female	-.193*** (.002)	-.190*** (.003)
Nordic	-.043*** (.003)	-.040*** (.004)
Europe	-.108*** (.004)	-.099*** (.005)
Africa	-.088*** (.015)	-.080*** (.021)
Asia	-.132*** (.009)	-.136*** (.012)
North America	-.047* (.022)	-.069* (.031)
South America	-.054*** (.012)	-.045* (.018)
Rest of the World	-.019** (.024)	-.039 (.035)
OC <sub>t</sub>	-.015*** (.001)	-.013*** (.001)
OC <sub>t</sub> * Female		-.005 (.003)
OC <sub>t</sub> * Nordic		-.007 (.005)
OC <sub>t</sub> * Europe		-.018* (.008)
OC <sub>t</sub> * Africa		-.014 (.030)
OC <sub>t</sub> * Asia		.006 (.017)
OC <sub>t</sub> * North America		.045 (.044)
OC <sub>t</sub> * South America		-.018 (.025)
OC <sub>t</sub> * Rest of the World		-.042 (.049)
Constant	5.718*** (.112)	5.713*** (.112)
R <sup>2</sup>	.495	.495

Notes: N=719,847. Controls include worker education, age, plant age, location, and industry dummies. All independent variables are observed at t-1, except that ownership change is observed at t. †p<.10, \*p<.05, \*\* p<.01, \*\*\* p<.001, two-tailed significance levels using heteroskedasticity robust standard errors.

**Table 6**  
**Multinomial Logit Estimates of the Determinants of the Probability of Being Unemployed**  
**Dependent Variable: Probability of Unemployment A Year After An Ownership Change**

Coefficient on:	Ownership Change Effects Same for All Individuals		Ownership Change Effects Allowed to Differ For Females and Non-Swedes	
	Switched to Another Firm	Unemployed	Switched to Another Firm	Unemployed
Log (t-1) Earnings	-.491 *** (.007)	-1.216*** (.007)	-.491*** (.007)	-1.215*** (.007)
Log Experience	-.100*** (.008)	-.093*** (.009)	-.100*** (.008)	-.093*** (.009)
Log Experience * Female	.016* (.008)	-.032 *** (.008)	.015* (.008)	-.033*** (.008)
Female	-.421*** (.011)	-.156*** (.011)	-.015*** (.009)	-.128*** (.014)
Nordic	.020 (.014)	.432*** (.014)	-.015 (.022)	.487*** (.020)
Europe	-.166*** (.018)	.251*** (.018)	-.247*** (.028)	.261*** (.026)
Africa	-.323*** (.067)	.640*** (.059)	-.230* (.102)	.611*** (.093)
Asia	-.160*** (.032)	.699*** (.029)	-.072 (.047)	.727*** (.042)
North America	.042 (.092)	.723*** (.088)	.053 (.134)	.513*** (.136)
South America	-.047 (.053)	.714*** (.050)	.026 (.080)	.772*** (.074)
Rest of the World	-.104 (.129)	.260* (.120)	-.211 (.196)	.230 (.166)
OC <sub>t</sub>	.498*** (.007)	.365*** (.008)	.518*** (.009)	.391*** (.009)
OC <sub>t</sub> * Female			-.106*** (.016)	-.055*** (.016)
OC <sub>t</sub> * Nordic			.060* (.028)	-.099*** (.027)
OC <sub>t</sub> * Europe			.138*** (.036)	-.018 (.035)
OC <sub>t</sub> * Africa			-.162 (.134)	.046 (.120)
OC <sub>t</sub> * Asia			-.159* (.062)	-.054 (.056)
OC <sub>t</sub> * North America			-.007 (.184)	.383* (.178)
OC <sub>t</sub> * South America			-.128 (.106)	-.106 (.098)
OC <sub>t</sub> * Rest of the World			.195 (.262)	.064 (.240)
Pseudo R <sup>2</sup>	.172		.172	

Notes: N=804,535. Controls include worker education, age, plant age, location, and industry dummies. All independent variables are observed at t-1, except that ownership change is observed at t. †p<.10, p<.05, \*\* p<.01, \*\*\* p<.001, two-tailed significance levels using heteroskedasticity robust standard errors.