

The Dual Process of Korean Labor Market Transformation: Decomposing the Size-Wage Gap, 1982~2004*

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This study aims to understand the nature of the structural change in the Korean labor market by analyzing the wage gap between large firms and small to medium-sized firms between 1982 and 2004. The result reveals that Korea experienced two historical moments in which the size-wage gap surged: one in 1987, the year of mass labor strikes spurred by the democratization movement, and the other in 1997, the year the Asian financial crisis began. Whereas the first moment was a temporary phenomenon lasting only until the early 1990s, the second moment led to a continuous wage-gap increase. The result of an Oaxaca-Blinder decomposition of the wage gap shows that the factors contributing to the widening of the wage gap since the economic crisis were different between the manual sector and the non-manual sector. For manual workers, the increase of the size-wage gap was mostly induced by compositional effects, specifically the increased share of long-tenured workers in large firms. For non-manual workers, however, it was a price effect. In light of the current debate on the transformation of the internal labor market, we conclude that a corporate internal labor market exists persistently, although reduced in size, in the manual sector, whereas the corporate boundary is significantly weakened in the non-manual sector. This dual process of labor market transformation, however, results in an increased size-wage gap in both sectors, although for differing reasons.

Keywords: Internal Labor Market, Size-Wage Gap, Oaxaca-Blinder Wage Decomposition, Labor Market Segmentation, Boundary-Less Career, Meritocracy, Korea

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I. INTRODUCTION

The internal labor market is a distinctive employment system in which employees are protected from the external market competition through organizational institutions such as the internal promotion ladder and the seniority wage system. Although the internal labor market may be a mutually beneficial system for both employers and employees in gaining employees' commitment and loyalty for the former and in ensuring security of employment and wages for the latter, it also contributes to creating a gap and inequality between those who are inside the system and those who are not.

Despite differing opinions about the Korean internal labor market, there is a general consensus that watershed moments in the structural transformation of the labor market occurred in 1987 and 1997.¹ 1987, the year of the first national general strike, is most commonly recognized as the year when the labor market segmentation started to develop in Korea, as argued by Song (1994) and supported by numerous studies to evidence the development of the internal labor market in large companies and the core-periphery segmentation (Lee 2001; Nahm 1995). On the other hand, after the economic crisis in 1997, there have been growing arguments claiming that the Korean internal labor market had been dissipated by the neo-liberal structural changes triggered by the economic crisis (Roh 2008). Massive layoffs and restructuring done in almost all *chaebol* companies immediately after the economic crisis were interpreted as signs of the dismantling of the internal labor market even in large enterprises.

However, despite changes in the hiring processes and changes in the personnel management practices of large firms during the late 1990s, there remains no systematic understanding of how the labor market changed as a whole. In addition, the wage gap between large firms and small to medium-sized enterprises (SMEs) has continually increased since the economic crisis (Jung and Cheon 2001) and a significant portion of the wage disparity that

¹ Refer to Hwang (2007) for an opposing view. Hwang asserted that the internal labor market experienced a structural change to temporary workers during the mid-1980s through his analysis of the trends of temporary workers from 1970 to 2005.

has surged since 1997 can be attributed to the pay difference between large firms and SMEs (Jung 2002; Kim and Han 2007). Such reports illustrate the difficulty in answering the simple question: “Are Korean internal labor markets weakening?” If large conglomerates’ internal labor markets were weakened after the economic crisis and this led to an organized shutdown of wage premiums, then why has the size-wage gaps been increasing? This contradiction provides us with the starting point of conjecture on how the Korean labor market changed after the economic crisis.

Since the late 1990s, two main points of view have emerged concerning the structural change of the labor markets. First, there is the opinion that the internal labor market retained its original identity but was simply reduced in size. The second view asserts that the labor market itself has dissolved. The former assessment may be found in research by Hwang (2003). Hwang utilized the 1998-2003 data from the Korean Labor and Income Panel Study (KLIPS) to analyze the standard for wage determination for insiders (large firms, permanent employees, and union members) as well as outsiders (small to medium-sized firms, temporary workers and non-union workers). She found a significant difference in wage determination between the insiders and the outsiders; personal attributes such as education and tenure being more important to insiders and job attributes such as industry or occupation being more significant to outsiders., and argued that even after the economic crisis, the divide in the labor market continued to exist. She further argues that the large conglomerate companies of Korea responded to the economic crisis not by functional flexibilization strategy but by quantitative flexibilization strategy, outsourcing workers at the lowest levels of the organization of production. As a consequence, the labor market was in a way reduced, but Hwang believes that the essence of the market remained.²

Ryoo (2002), who used the same data as Hwang, asserts that the internal labor market is weakening, as demonstrated by the sharp erosion of the male

² This assertion also matches Eom(2006)’s analysis of a large firm’s personnel documents. He analyzed the 1996-2000 personnel documents of a large firm that had adopted a performance-based pay system in 1998 and found that controlling for age, the effect of firm tenure had rather increased after the company adopted the performance-based pay. Based on this case study, he argues, it is hard to conclude that the adoption of performance pay system weakens the seniority effect.

employees' seniority pay. In addition, Ryoo and Park (2003) utilizing "Wage Structure Survey" to analyze the wage determining mechanisms of male workers between 1980 and 1999, found that the importance of seniority pay, which rewards firm-specific skills has lost its dominance in overall wage determination process after the early 1990s, whereas the influence of the pay for work experience (not firm tenure), which signals the reward for general skills universally applicable across firm boundaries has continued to increase since the early 1990s.

Reflecting such different opinions, Jung and Cheon (2001) recognized the existence of two macro trends sending contradictory signals with respect to the fate of the Korean internal labor market: the growing size-wage gap implicating the strengthening of the internal labor market and the waning of seniority wage, and concluded that the corporate internal labor markets "still persists protecting its incumbents from the market competition, yet at the same time pushing them into severe internal competition."

These studies, both recognized for their validity, reached such different conclusions mainly due to the data used, the scope conditions, and the methods of analyses, though other factors were involved as well. In particular, the manner of composing the target analysis groups differentiates the conclusions of these studies. If the ways in which the internal labor market changed had been different across sub-groups, then analyzing the whole group without recognizing the internal variation would create an error close to an omitted variable bias. In particular, considering that a company's employment restructuring strategies are adjustable in accordance with production skills and bargaining power of unions it is a grave mistake to analyze changes in the internal labor markets without differentiating between two inherently different groups, that is the manual group in which firm-specific skills are still important and the union membership is relatively high and the nonmanual group in which specificity of skills is low and the union rate is low.

This essay aims to analyze the size-wage gap between large and small to medium-sized Korean firms between 1982 and 2004 and within the context of change in the internal labor market structure. Through the process of analyzing the mechanisms that created the disparity, we hope to understand the changing form of the Korean labor market. The result of our study reveals

that the wage gap between large firms and SMEs surged once in 1987 and again in 1997. The first instance was a temporary phenomenon but the second instance instigated a continuing wage-gap increase. The result of an Oaxaca-Blinder decomposition of the wage gap shows that the factors contributing to the widening of the wage gap since the economic crisis differ between the manual sector and the non-manual sector. Possibly, it is these differences that created the inconsistent conclusions in the previous studies related to the changes in the internal labor market.

II. DIFFERENCE IN COMPOSITION OR COMPENSATION: THE SOURCE OF THE SIZE-WAGE GAP

The internal labor market is commonly defined as a closed employment system protected from market competition, but there is a certain variation in the heuristic tools that researchers use to identify the existence of the internal labor market. For example, Althausser and Kalleberg (1981), influenced by neo-institutional economics arguing that organizations are created in order to minimize transaction costs in the process of production distinguish the restriction of entry to the organization, the job ladder, and the internal promotions as defining characteristics of the internal labor market. Thus, workers' wage growth through internal upward movement is seen as the main indicator of the internal labor market. On the other hand, for the Korean labor market, in which the system of wages based on job titles is underdeveloped, Jung (1992; 2001) and Nahm (1995) define the internal labor market in the broad sense as workplace customs in which "practices differentiated from external markets" exist and adopted the comparatively high wage and job security as its indicators (for further information, refer to Jung and Cheon 2001: 157-163).

In this case, where is the Korean internal labor market located and in what form? It is known that factors such as the industry, the size of the firm, and the type of occupation have been suggested as the basis of the division of the labor market at theoretically and empirically. Given that the outcome of the debate depends upon how the internal labor market is defined, the dispute is expected to continue. However, if relatively higher wage and employment

security are commonly used to define internal labor market, we can use the size difference between large and small-to-medium firms as proxy variable demarcating the boundary of labor market segmentation. Research based on an analysis of micro-data asserts that, in Korea, internal corporate labor markets form around large firms. This research cites the presence of a size-wage gap, difference in wage determination, seniority wages in large firms, and the limited relationship between large firms and small to medium-sized firms as evidence (Yee 2003; Hwang 2003). In this study, we will follow Jung and Cheon (2001) and use the size of the firm as the proxy variable of the internal labor market divide, but we will also analyze how the causes of the size-wage gap changed and focus on the changing aspects of the macro labor market.³

The phenomenon of large firm workers earning higher wages than their counterparts at small to medium-sized firms can be found in many countries. Studies have observed companies with more than 500 workers and companies with less than 100 workers and compared their respective wage disparities, finding a gap of 17% (Main and Reily 1993) in Great Britain and 19% in the United States (Idson and Feaster 1990). When the company size was increased to more than 1000 workers and decreased to less than 30 workers, the disparity grew to 54% in the United States and 49% in Japan (Oi 1990: S127-S128).

Owing to the tendency of average wages to be greater at large firms than at small to medium-sized firms, it appears rational to accept such a difference as a self-evident truth. However, there are many reasons and explanations about why such differences occur. As discussed by Brown and Medoff (1989), the size-wage gap could be established from the personnel structures of the respective firms or could exist even after accounting for the personnel

³ Because the discussion about the internal labor market is intensive and broad, it is important in this study to define the internal labor market as the internal corporate labor market. Therefore, the findings of this study cannot be applied to other forms of the internal labor market. The defining characteristics of this sort of market are high wages, restriction of entry, promotion ladders and organizational isolation. For the purposes of this study, the focus will be upon economic compensation. Also, it is important to stress that in order to infer the internal corporate labor market's changing form, consistent reservations need to be taken into account.

structures.

The size-wage gap could arise from both compositional differences and price differences. As for the former, there are several reasons to believe that the higher mean wage of the large firms is because of their compositional characteristics. First, large firms are comparatively more concentrated in manufacturing industries, while the small to medium-sized firms are primarily concentrated in service industries. Therefore, in this instance, it can be inferred that the wage disparity is due to the fact that medium firms have a high concentration of low paying service jobs. Second, there could be differences in the job distribution as well. Because large firms have a comparatively greater number of higher-paying corporate jobs, the average wage may be higher. Third, in the same context, in larger firms, workers with more education are distributed throughout, adding to the wage gap. Fourth, there are comparatively more workers with longer greater firm tenure in large firms thus increasing the difference in wages. In addition, workers with unobserved qualities that favorably increase wages may be more concentrated in larger firms and thus contribute to the higher average wages.

Apart from the compositional difference, large firms and SMEs may pay differently for the same human capital and this price difference may contribute to the size-wage gap. Groshen (1991) summarizes various theoretical explanations on why larger firms may pay more for the same personal attribute as follows.

1. workers in larger firms may have greater unobserved productivity
2. workers in large firms may have to endure more unfavorable working conditions such as inflexible working hours and harder disciplinary requirements, hence are more compensated.
3. The costs to monitor a person's work may be higher in large firms hence managers may pay greater effective wages to induce more loyalty.
4. Both the ability of the employer to compensate workers and the workers' ability to negotiate may be higher in large firms.

All of the explanations are grounded in theories that are somewhat contradictory to one another, but here we simply recognize that there are many different reasons as to why the price differential between larger firms

and smaller firms can arise.

If the wage gap between large firms and small to medium-sized firms increases, it could be a result of strengthened compositional differences between the two or a result of increased price differentials. When this logic is applied to the Korean internal corporate labor market, two scenarios emerge.

First, if Korean large firms clung to the internal labor market policies and responded to business fluctuations caused by the economic crisis by dismissing the peripheral workforce with short firm tenure while protecting the core long-tenured workforce, large firms would have experienced homogenization in workforce after the economic crisis particularly in terms of tenure distribution and the compositional difference between the large firms and SMEs would have increased. In this case, the increase of the size-wage gap after the economic crisis can be understood as a result of a reinforced selection of employees in large firms. That is, it can be understood as a result of the increased mean wage of large firms as the proportion of workers with long firm tenure increased.

On the other hand, had the collapse of seniority wage and employment system been predominant as a consequence of large firms renouncing the internal labor market policy, then the difference in personnel attributes between the large firms and SMEs would have been reduced. Particularly, long-tenured employees in large firms, who are more costly to maintain, would have been let go and forced retirement would have increased. Suppose that the compositional differences between the large firms and SMEs have been significantly reduced as a result of such change in large firms. If the size-wage gap had increased during the period in spite of the convergence of distributional characteristics, it will be hard to regard that the increase of the size-wage gap was induced by a compositional change.

III. DATA AND METHOD OF DATA ANALYSIS

This research utilized the 1982–2004 data sets from the “Basic Survey of Wage Structure” The “Basic Survey of Wage Structure” is data from the Ministry of Labor that tracks businesses with more than 10 employees, excluding public administrations, national organizations, and housework services. The

sampling scope is expanded to businesses with five or more employees since 1999, but to maintain the compatibility over time, samples are restricted to firms with ten or more workers throughout the whole period. Although there are differences every year, there are usually about 5,000 business organizations and over 300,000 workers included in the original data. Research from these data typically uses a sample of 5% or 10%. This study, however, utilized the entire sample. The extraction rate of the workers varied with the size of the company. Therefore, in order to account for differing extraction rates, the sampling weights are applied.

The “Basic Survey of Wage Structure” has an advantage of having a large survey pool. Moreover, it contains highly credible information. However, the “ten or more workers” criterion is not a trivial limitation hence should be taken into account when interpreting the results.

To identify and quantify the separate contributions of group differences in terms of measurable characteristics, the Oaxaca-Blinder decomposition technique was used (Oaxaca 1973; Blinder 1973). The average wages between the two groups is different possibly because the personnel compositions are different or because the compensation for the same human attribute is different. The Oaxaca-Blinder decomposition a method to distinguish the effects of compositional difference and the price difference on the average wage differential between two groups. It relies on a counterfactual calculation of how much wage gap would be reduced had the distribution of human capital of the low-wage group been the same as that of the high-wage group or had the price for the same attribute is the same between two groups. Here, the proportion of compositional effect to account the total wage gap is called the explained proportion of the wage gap while the proportion of price effect to account the wage gap is called the unexplained proportion of the gap.⁴

Suppose there are two groups with different average wages. The wage equations for the higher-paying group (H) and lower-paying group (L) can

⁴ Consider a scenario in which the wage was wholly determined by education and where the average level of education for a high-wage organization was comparatively high. If after the calculation the effect of education is evident in both organizations, then the wage gap between the two organizations could be wholly explained by education. However, if the education effect only increases in the high wage organization, then one cannot explain the wage gap solely in terms of education.

be expressed as below. Here, β^H refers to the coefficient vector of the higher wage group including the Y-intercept, X^H refers to the vector of human capital variables, and β^L and X^L refer to vectors of the lower wage group defined the same way.

$$Y_i^H = \beta^H X_i^H + \varepsilon_i^H$$

$$Y_i^L = \beta^L X_i^L + \varepsilon_i^L$$

In this case, the average wage difference between the two groups can be expressed as $(\bar{Y}^H - \bar{Y}^L)$, when \bar{X}^H refers to the vector of mean personal attributes of the higher wage group and \bar{X}^L is that of lower wage group.

$$\bar{Y}^H - \bar{Y}^L = \beta^H \bar{X}^H - \beta^L \bar{X}^L$$

According to the Oaxaca-Blinder decomposition method, the average difference of wages between the groups can be separated into the difference in the average personnel attributes and the difference in average compensation coefficients. If we set the high-wage (H) group's earning function as the reference, then the following equation holds:

$$\bar{Y}^H - \bar{Y}^L = \beta^H (\bar{X}^H - \bar{X}^L) + X^L (\beta^H - \beta^L) + (\beta^H - \beta^L) (\bar{X}^H - \bar{X}^L)$$

(D: Wage Differentials) = (E: structural effect) + (C: cost effect) + (CE: interaction effect)

The first term, $\beta^H (\bar{X}^H - \bar{X}^L)$, represents the difference in composition between the two groups, called the endowment effect or the composition effect. The second term, $X^L (\beta^H - \beta^L)$, represents the difference in the compensation coefficient, called the coefficient effect or the price effect as well. The last term, the combination $(\beta^H - \beta^L) (\bar{X}^H - \bar{X}^L)$, represents the interaction effect. The average wage differential of the two groups, labeled D , is the sum of the endowment effect (E), the cost effect (C) and the interaction effect (CE), hence the ratio of each item to D shows the relative contribution of each effect on the wage gap.

In this study, a large firm is defined as a corporation with more than 300 workers, and small to medium-sized firms are defined as companies with

fewer than 300 workers. The independent variables in wage determination are education, age, age-squared, firm tenure, firm tenure squared, marital status, industry, and occupation. The dependent variables are the logarithm of the hourly wage. The hourly wage is the real hourly wage adjusted for inflation using the Consumer price index (the reference year is 2000) provided by the Bank of Korea. To maintain compatibility over time, the industry was recoded following the fifth standard industry classification scheme and the occupation was recoded following the the third standard occupation classification scheme. The sample is limited to male workers. In order to understand the structural change of the internal labor market, it is important to note difference in genders; however, because this study is focused on wage disparity, it seemed best to restrict the subjects to male workers.

IV. THE TREND OF THE SIZE-WAGE GAP AND CHANGES IN THE COMPOSITIONAL DIFFERENCE BETWEEN LARGE FIRMS AND SMES: 1982-2004

First, we investigate how the wage gap between large firms and SMEs has changed over the last 25 years. <Figure 1> shows the trend of the logged real hourly wage in large firms and SMEs from 1982 to 2004 by sex. The wage gap between large firms and SMEs appears to have experienced two historical surges. Among male workers, the size-wage gap increased sharply after 1987, then became stabilized until it encountered another surge right after 1997, the year of economic crisis. More specifically, in 1987, male workers at large firms earned, on average, 12% more than male workers at small to medium-sized firms, but the gap surged to 22% in the following year.

It appears that the increase in the size-wage gap in 1987 was due to the increased bargaining power of workers in large firms due to rapid organization of trade unions in large firms followed by mass labor strikes concentrated in the heavy manufacturing-chemical industry. However, the effect of 1987 was temporary and lasted only five years. Such alleviation of the size-wage gap can be a result of subsequent pay raises in SMEs trickled down from the remarkable pay increase in the larger firm. After the early 1990s, the wage gap was alleviated, but after the financial crisis of 1997, the gap widened

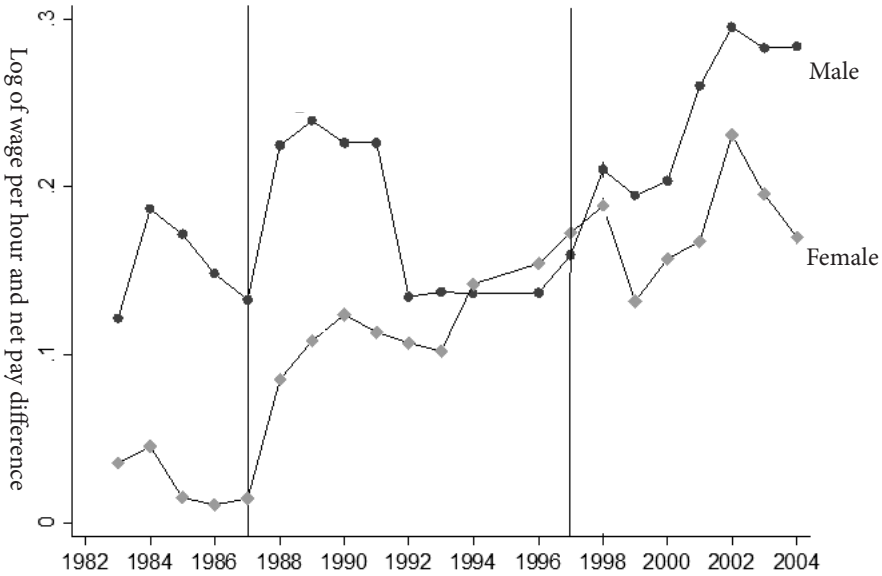


Figure 1. Trend in Wage Gap between Large Firms and Small to Medium-sized Firms.

significantly to the extent that in 2004, the average hourly wage of workers at large firms was 130% greater than workers at SMEs. The case was similar for females, but compared to males, the premiums for working at large firms were smaller and, therefore, the wage gaps in the two momentous years were not as defining as the wage gap for males.

If the temporary discrepancy of male workers after 1987 is ignored, then the continually increasing gap among male workers can be said to have started after the economic crisis of 1997. Accordingly, it appears as though the compositional characteristics of male workers in large firms and in SMEs became more and more heterogeneous. If the distributions of workers in large firms and SMEs had increased over the years, it will be reasonable to examine changes in compositional difference first for the cause of the increase of size-wage gap.

The Index of Dissimilarity is an index to measure the compositional difference between two groups. The index of dissimilarity can be interpreted as the percentage of group B that would have to move to group A in order to produce a completely even distribution, when 0 indicates perfect evenness

and 1 indicates perfect segregation. If large firms are labeled as A and SMEs are labeled as B and a qualification, such as level of education, is labeled as j , then $N(A)$ refers to the number of workers of large firms and $N(B)$ refers to the number of workers of small to medium-sized firms. $N(A_j)$ refers to the workers pertaining to the j -characteristic in large firms and $N(B_j)$ refers to the workers pertaining to the j -characteristic in SMEs. The level of dissimilarity between A and B can be calculated by the value of D in the following equation.

$$D = \frac{1}{2} \sum_{j=1}^j \left| \frac{N(A_j)}{N(A)} - \frac{N(B_j)}{N(B)} \right|$$

<Figure 2> shows how the heterogeneity between large firms and small to medium-sized firms has changed during the past 25 years for male workers. To calculate the level of heterogeneity, the characteristics of the level of education, age, years of service, and occupation were used. The level of education was divided into four levels (graduation from elementary school, graduation from middle school, graduation from high school, and graduation from college); age was divided into five levels (under 25 years, 25-35, 35-45, 45-55, and over 55 years); years of service was grouped into six categories (less than 1 year, 1-2, 3-5, 5-7, 7-12, and more than 12 years); and occupation was designated into eight categories (manager, specialist, assistant specialist, clerical work, selling, technician, assembly, and manual labor).

As <Figure 2> indicates, there were no significant differences in education, age, or occupation in large firms and small to medium-sized firms and there was no distinct pattern noted regarding any change detected after 1982. However, regarding the years of firm tenure, there was a major difference, especially after 1997. The index of dissimilarity for male workers was about 0.24 in 1987 but increased to 0.35 in 2004. In other words, it took 24% of workers in SMEs to move out of their tenure group in order to match the tenure distribution of the large firms in case of 1987, but it took 35% of workers to do so in 2004, indicating an increased compositional difference between the two groups during the period.

The real average years of tenure at large firms and small to medium-sized firms can be observed in <Figure 3>. For male workers at medium-sized

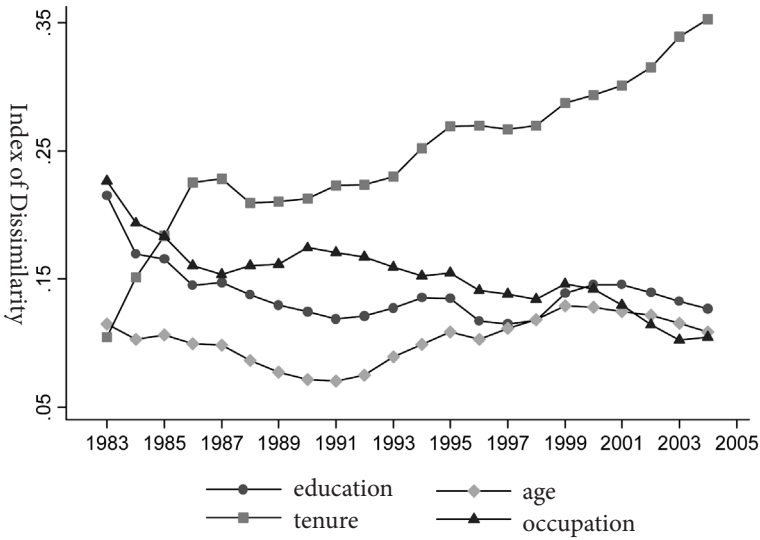


Figure 2. Changes in Compositional Dissimilarity between Large Firms and Small to Medium-Sized Firms.

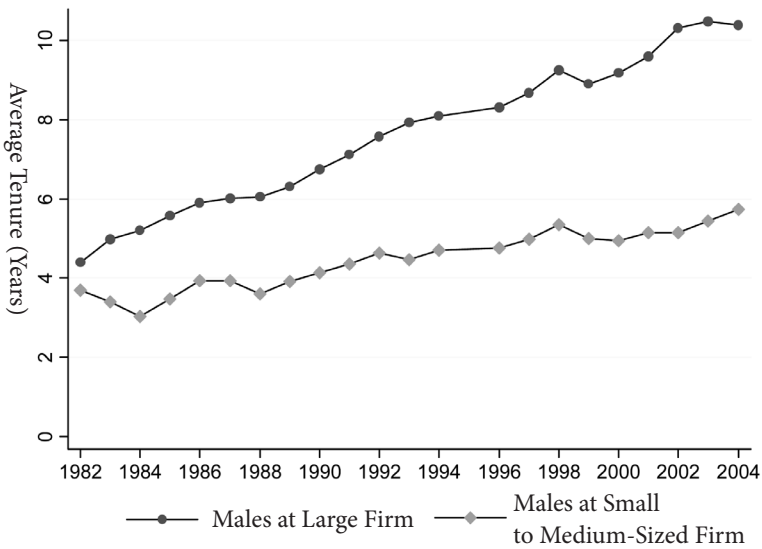


Figure 3. Change in the Average Tenure in Large Firms and Small to Medium-Sized Firms.

firms, there has been little change in the last 25 years. Workers in 1982 had worked an average of 3.7 years, and in 2004 workers at their companies had worked for an average of 5.75 years. Conversely, in large firms, the average years worked in 1982 was 4.39 years, but by 2004 the average rose to 10.38 years. The increase in years worked could possibly be a result of the aging working class, but the significant difference between the large firms and small to medium-sized firms indicates a phenomena independent of demographic changes. During the same time period, the average age of the workers at large firms increased from 32.11 to 38.99 while for small to medium-sized firms it increased from 33.1 to 40.46. Yet the change in the index of dissimilarity for age distribution was miniscule (from 0.1 to 0.15) (refer to <Supplement 1>).

Over the last twenty years, large firms and SMEs have maintained similar make-ups in terms of the education, occupation, and age of their respective workers. However, the increasing gap in the average tenure is evident. In the case of male workers, the gap in employment stability between large firms and SMEs has continually widened. As a result, the two have become very different groups in terms of the proportion of long-tenured workers.

V. DECOMPOSITION OF THE SIZE-WAGE GAP: AN ENDOWMENT EFFECT OR A PRICE EFFECT?

<Figure 4> shows the result of the Oaxaca-Blinder decomposition of the difference in the logged average real hourly wage between large firms and SMEs from 1983 to 2004, restricted to male workers.⁵ The <Figure 4> shows the absolute contributions of the endowment effect and the price effect on the size-wage gap presented in <Figure 1>. The relative contributions of the endowment effect and the price effect can be calculated by setting the wage gap of the particular year to 100, and are presented in <Supplement 2>.

The most striking finding in <Figure 4> is that it was the price effect that induced the short-term increase in the wage gap between large firms and SMEs after 1987. For example in 1986, the mean logged hourly wage of large

⁵ Presented is the result setting large firms as the reference group. We duplicated the result setting SMEs as the reference and no noteworthy difference was found.

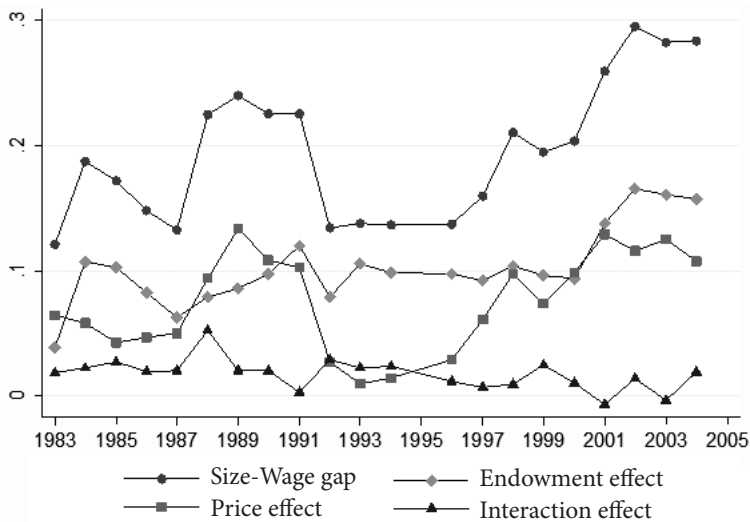


Figure 4. Results of Decomposition of Size-Wage Gap: 1983-2004.

firms was 8.204, as compared to the average wage of 8.055 at SMEs. In the wage gap of 0.149, 0.047 was due to the price effect. Three years later in 1989, the wage gap between large firms and small to medium-sized firms increased to 0.24, and of that 0.24, the price effect was an astounding 0.134. The price effect, a result of large firms paying more for the same human attributes accounted about 31% of the size-wage gap in 1987 but it grew to 56% in 1989. Note that the increase of size-wage gap led by the price effect did not last for a long time. As the temporary surge of the price effect declined, the wage gap between large firms and SMEs in the early 1990s fell to the levels before 1987. One may speculate that the falling price effect is a consequence of a process in which the salary increase first initiated in large firms in 1987 slowly trickled down to SMEs.

On the other hand, the increase of the size-wage gap in 1997 seems to have been caused by a more complex effect. The endowment effect was maintained without great changes throughout the 1990s until it encountered with a sudden increase in 2000, while the price effect steadily increased after 1997. Considering an analysis of only <Figure 5>, it would appear that the wage disparity after the economic crisis was a combination of the structural and the cost effect, with the cost effect responsible immediately following the

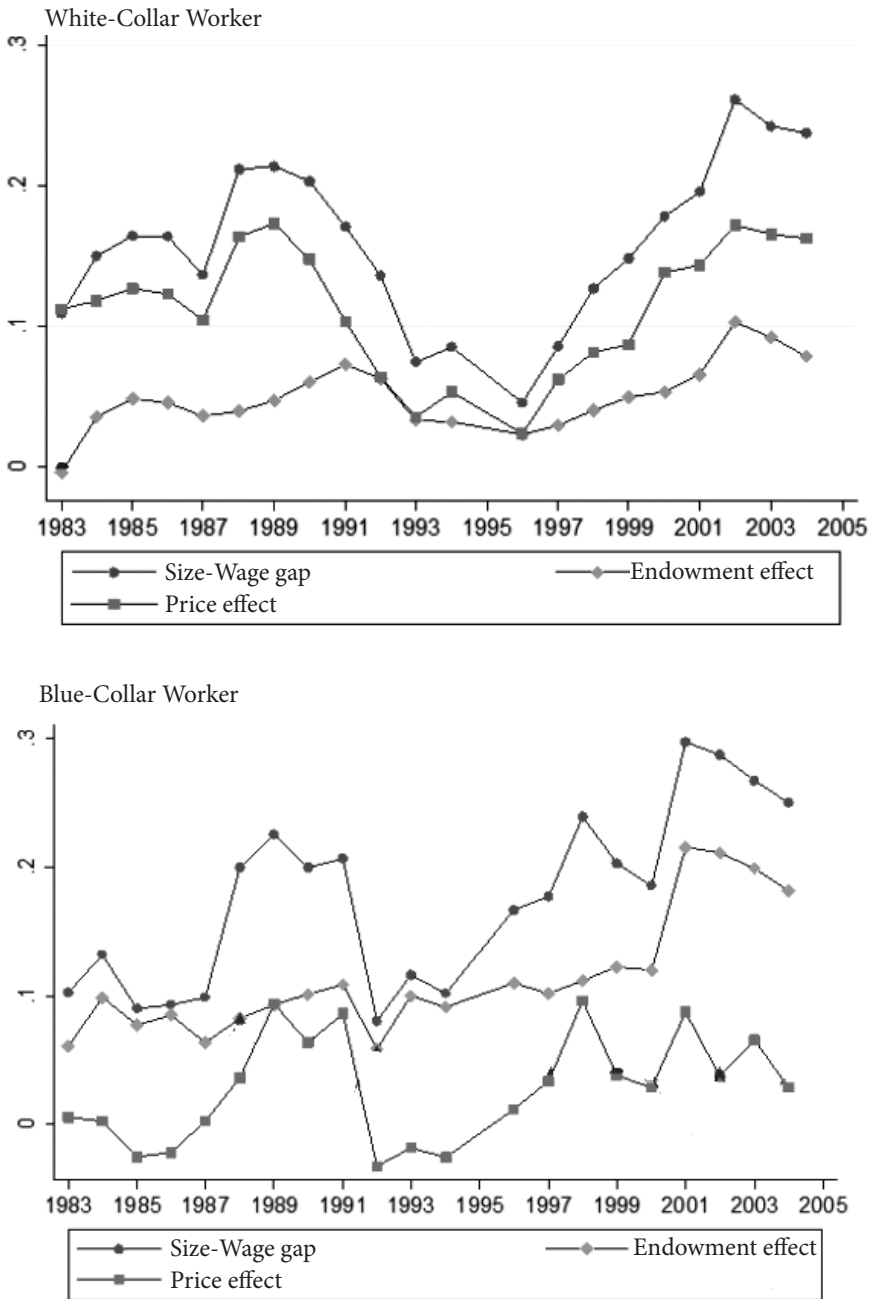


Figure 5. Decomposition of the Size-Wage Gap by Occupation.

economic crisis and the structural effect responsible afterwards. However, this interpretation is an erroneous one that can easily come about when the third variable is not properly controlled for. A different pattern is detected if blue-collar and white-collar workers are divided and the wage gap is then analyzed.

<Figure 5> presents the result of the Oaxaca-Blinder decomposition applied to the manual and nonmanual male workers separately. First, in the case of non-manual workers, the wage gap between large firms and SMEs surged after 1987 but continually decreased; in 1996, the gap was measured at about 5%. However, after 1997, the gap increased at an alarming rate. The contribution of the endowment effect is on the low side. There are indications of an increasing trend, but not to the point that it is unsettling. Therefore, in the case of white-collar workers, there is not a significant difference in the qualifications of workers between large firms and SMEs. Correspondingly, the qualifications of workers do not contribute significantly to wage disparity. The increase of the size-wage gap among nonmanual workers has been mainly induced by the price effect, both the temporary surge after 1987 and after the economic crisis.

For blue-collar manual workers, the endowment effect overrides the price effect. Although the price effect seems to have contributed greatly to the temporary surge of the size-wage gap in 1987, it is the endowment effect that supersedes the price effect throughout the whole period in size and responsible solely for the increase in the wage gap after the late 1990s.

It is important to note that the increasing price effect led to a temporary surge of the wage gap in 1987 for both white- and blue-collar workers. However, after 1997, the reason for the wage gap was notably different. After the economic crisis, the change in the compositional dissimilarity of white-collar workers in large firms and SMEs was slow and it was particularly the different rates of compensation given to similar qualifications that contributed mostly to the wage gap. For blue-collar workers, the increase in the heterogeneity between workers in large firms and workers in SMEs was the leading cause of the increasing size-wage gap.

Why are there such great differences in patterns between blue-collar and white-collar workers? In the next section, these changes will be compared for the year immediately before the economic crisis, 1996, and in the latest year

for which we have data, 2004.

VI. THE SIZE-WAGE GAP DECOMPOSITION FOR MANUAL AND NONMANUAL WORKERS

The previous trend analysis has shown that the economic crisis of 1997 increased the size-wage gap but in different way for manual workers and nonmanual workers. More specifically it was the endowment effect for manual workers and the price effect for nonmanual workers that led the increase of the wage gap since 1997. To further investigate the cause of such divergence, in this chapter, we apply an OLS regression analysis of the logged hourly wage in 1996 and 2004 and compare the results.

The wage equation used in this chapter is an expansion of the basic model used in the previous chapter (experience, tenure, education, marital status, and occupation), which also factors in personal traits that could affect economic compensation, such as rank, licenses/certificates, form of pay, and union membership.⁶

Experience was calculated as the period between the person's last graduation and the present - 5 years (age - years of education - 5), rank was divided into eight categories (board member, head of department, deputy head of department, section chief, deputy section chief, head of team, group leader, and worker), license/certificates was applied to technicians and other skills provided by the state in which people with licenses were labeled 1 and workers without were labeled 0. Form of pay referred to hourly pay, weekly pay, monthly pay, yearly pay, or pay-by-job (hourly pay is the reference category). Finally, in terms of union membership, a 1 was given to workers who worked in companies with unions, while laborers working in places without unions were given a 0.

<Table 1> presents the result of OLS regression on logged hourly wage for manual workers. The chart helps determine which traits are favorable for

⁶ This expanded model may be more desirable to estimate wage determination mechanisms but many of the variables are not provided in earlier data of Basic Survey of Wage Structure, making the longitudinal analysis in the previous chapter cannot but rely on the basic model.

Table 1.

	1996				2004			
	Small to medium-sized Firm		Large Firm		Small to medium-sized Firm		Large Firm	
	Coefficient	Average	Coefficient	Average	Coefficient	Average	Coefficient	Average
Education	0.01**	10.8	0.02**	11.36	0	11.72	0.02**	11.88
Job Experience	0.018**	22.48	0.018**	19.53	0.025**	25.35	0.011**	23.42
Job Experience ²	-0.00**	675.16	-0.00**	483.43	-0.00**	816.3	-0.00**	662.39
Tenure	0.02**	3.85	0.03**	8.6	0.02**	4.95	0.04**	10.47
Tenure ²	0	33.33	-0.00**	115.73	-0.00**	49.17	-0.00**	169.47
Married	0.10**	0.73	0.05**	0.76	0.06**	0.73	0.03**	0.77
Technician	0.19**	0.3	0.16**	0.39	0.29**	0.26	0.26**	0.27
Assembly Worker	0.11**	0.55	0.15**	0.54	0.26**	0.52	0.23**	0.6
Board Member	0.12**	0.002	-0.23**	0.001	0.10**	0.007	0.16*	0
Head of Department	0.12**	0.003	0.16**	0.001	0.25**	0.019	0.53**	0.001
Deputy Department Head	0.24**	0.013	0.22**	0.008	0.39**	0.016	0.31**	0.004
Section Chief	0.12**	0.012	0.04**	0.006	0.27**	0.048	0.29**	0.019
Deputy Section Chief	0.15*	0	-0.09*	0.001	0.19**	0.082	0.17**	0.076
Team Lead	0.08**	0.012	-0.02**	0.019	0.09**	0.081	0.06**	0.09
Group Leader	0.10**	0.033	0.01*	0.033	0.04**	0.034	-0.02**	0.074
License	0.02**	0.36	0.03**	0.36	0.01	0.31	0.03**	0.31
Daily/Weekly Pay	-0.01	0.2	-0.07**	0.23	0	0.11	-0.06**	0.18
Monthly Pay	0.14**	0.6	0.07**	0.51	0.05**	0.62	0.06**	0.52
Yearly Pay	0.49**	0	0.19**	0	0.01	0	0.41**	0
Efficiency Pay	0.36**	0.01	0	0	0.21**	0.13	0.28**	0.09
Labor Union	-0.13**	0.33	-0.02**	0.84	0.04**	0.22	0.09**	0.79
Constant	8.05**		7.98**		8.04**		7.87**	
No. of Cases	65312		75466		49391		61032	
R ²	0.23		0.43		0.39		0.56	

wages, how each trait is distributed and how it is valued in large firms and in SMEs. For example, education acts favorably in determining wages in both large firms and SMEs, but the coefficient of education is greater in large firm and so is the mean level of education, leading to a conclusion that education is a factor to increase the size-wage gap through both the endowment effect and the price effect.

The most striking revelation of <Table 1> is that tenure is a positive trait for higher wages in both large firms and small to medium-sized firms. In 1996, if other qualifications were equal, one additional year of tenure would increase the wage by 2% for workers in SMEs and by 3% for workers in large firms. The effect of tenure was always greater in larger firms, but in 2004 the difference grew greater. Even in 1996, the average years of tenure at large firms was 8.6 years while it was 3.85 years at SMEs meaning a difference of 4.75 years. However, by 2004 the average time at a large firm was 10.47 years whereas it was only 4.95 years at a SME, resulting in a greater difference of 5.52 years. The relative increase in the proportion of the long-tenured workers in large firms helped widen the size-wage gap.

The rank, occupation, licenses/certificates, and form of pay factors between 1996 and 2004 appear to have remained steady in large firms and in SMEs in terms of distribution as well as compensation. There was no specific attribute, regardless of its direction of influence, disproportionately concentrated in large firms or SMEs. No significant change was found either between 1996 and 2004.

However, union membership yielded interesting results. In 1996, 33% of workers at SMEs worked at companies with unions, while 84% of workers from large firms worked at companies with unions. However, it appears the union membership actually affects wages negatively and that the unfavorable effects were greater in SMEs. Nonetheless, in 2004, the effect of union membership became favorable and the favorable effects were greater in large firms. Union membership actually decreased in large firms and in small to medium-sized firms, by 5% and 11%, respectively. In summary, although union membership showed a decrease, the effect of union membership became favorable. Thus, the structural effect and cost effect both contributed to the comparative average wage increase of large firms.

To summarize the result for manual workers, the main cause of the

increase in size-wage gap between 1996 and 2004 is the change in the tenure distribution between large firms and SMEs and the change in the union effect. Not only did the years of tenure increase between 1996 and 2004, but also the amount of compensation increased greatly for large firms. Moreover, although the level of union membership decreased for all, the rate of decrease was slower in large firms widening the gap in union rate between the two groups. Also, the union effect on wage was more favorable in large firms. Succeeding the conclusion from the previous chapter noting the greater contribution of the endowment effect for manual workers, the result shows that it was the tenure and the union membership to take the lion share of the endowment effect. The disproportionate increase in tenure as well as the increasing return to tenure in large firms illustrates that the internal labor market policies still thrives in large firms. In addition, the increasing gap in union rate as well as its effect between large firms and SMEs implicates that the presence of union is closely related with the workings of the internal labor market.

<Table 2> shows the regression results on the logged real hourly wage of nonmanual workers in large firms and in small to medium-sized firms in 1996 and 2004. As with blue-collared workers, the tenure of white-collared workers in large firms increased at a faster rate (from 8.1 years to 10.34 years) compared to SMEs (from 5.77 years to 6.38 years), however, the return to the tenure has rather decreased in large firms. For white-collared workers, the return to the labor market experience was much greater and grew faster in large firms. In 1996, the return to experience and tenure were nearly identical for large firms and SMEs, but in 2004, the return to experience decreased in SMEs whereas it was the return to tenure that decreased in large firms, together adding more to the price differentials between the two groups.

Another interesting finding is that the proportion of merit-based pay within the salary system increased significantly in both large firms and SMEs and so did its coefficient. The increase in merit-based pay among non-manual workers and the direction of its effect on the size-wage gap should be closely examined. Also the increased coefficient of the licenses/certificates should be considered in the same vein.

The effect of unions has changed with a similar pattern to that for manual laborers. The positive effect of unions on wages increased after the economic crisis, but union rate, especially in small to medium-sized firms, declined

Table 2.

	1996				2004			
	Small to medium-sized Firm		Large Firm		Small to medium-sized Firm		Large Firm	
	Coefficient	Average	Coefficient	Average	Coefficient	Average	Coefficient	Average
Education	0.05**	13.97	0.06**	14.48	0.05**	14.31	0.06**	14.74
Job Experience	0.04**	17.57	0.04**	15.41	0.03**	19.86	0.04**	18.49
Job Experience ²	-0.00**	412.29	-0.00**	307.76	-0.00**	500.74	-0.00**	411.22
Tenure	0.02**	5.77	0.02**	8.1	0.02**	6.38	0.01**	10.34
Tenure ²	-0.00**	70.34	-0.00**	111.97	-0.00**	78.54	0	164.49
Married	0.09**	0.75	0.04**	0.74	0.04**	0.73	0.05**	0.74
Administrative	0.22**	0.14	0.24**	0.05	0.41**	0.14	0.54**	0.06
Professional	0.10**	0.19	0.07**	0.24	0.24**	0.15	0.31**	0.15
Semi-Professional	0.09**	0.201	0.05**	0.249	0.26**	0.318	0.23**	0.342
Clerical	-0.06**	0.418	-0.03**	0.419	0.21**	0.34	0.20**	0.38
Board Member	0.02	0.098	-0.09*	0.013	0.11**	0.152	0.11**	0.021
Head of Department	-0.18**	0.072	-0.02	0.038	0.03**	0.122	-0.06**	0.071
Deputy Department Head	0.03	0.123	-0.08**	0.134	0.01	0.085	0	0.098
Section Chief	0.01	0.034	-0.03**	0.029	-0.07**	0.161	-0.04**	0.197
Deputy Section Chief	0.16**	0.001	-0.04**	0.001	-0.05*	0.17	-0.04**	0.239
Team Lead	0.28**	0	0.26**	0	0.16**	0.03	0.24**	0.04
Group Leader	0.58**	0	0.47**	0	0.47**	0.02	0.11**	0.02
License	0.07	0.24	0.02	0.23	0.38**	0.3	0.48**	0.21
Daily/Weekly Pay	0.02**	0.01	-0.01**	0.01	0.07**	0.01	0.04**	0.01
Monthly Pay	0.23**	0.96	0.22**	0.96	0.21**	0.64	0.12**	0.63
Yearly Pay	0.16**	0.03	0.19**	0.02	0.30**	0	0.33**	0
Efficiency Pay	0.08**	0	0.11**	0	0.11**	0.35	0.16**	0.34
Labor Union	-0.02**	0.232	0.06**	0.722	0.08**	0.162	0.11**	0.714
Constant	7.35**		7.21**		7.44**		7.35**	
No. of Cases	69864		96072		61965		99365	
R ²	0.53		0.55		0.45		0.52	

significantly. Such a pattern hints that the endowment effects of unions, after the economic crisis, contribute to increasing the average size-wage gap.

To sum up the result for nonmanual workers, it seems clear that the difference in compensation for work experience has led to the wage disparity between large firms and SMEs. The decrease of the return to firm tenure in large companies denotes the collapse of the internal promotion ladder, a core institution of the corporate internal labor market, and the emergence of a new form of career often called the “boundaryless career” trajectory in which workers move freely across the firm boundary to build up general skills rather than firm-specific skills. In addition, the increased return to certificates/licenses particularly in large firms and the increased proportion of merit-based pay in large firms, all are read as symptoms of the demise of the seniority-based organizational career trajectory and the rise of a new more individualized career.

The results of the Oaxaca-Blinder decomposition of the size-wage gap for manual and nonmanual workers are shown in <Table 3> and <Table 4>, respectively.

In <Table 3> which is for manual workers, the first row demonstrates the degree to which the determinants of wage contribute to the total endowment effect summed at the end of the row. The (+) sign indicates the factor contribute to increasing the wage of large firms relative to SMEs thereby increasing the size-wage gap and the (-) sign indicates the opposite. If the effect is 0, this indicates that the factor does not explain the wage gap between large firms and SMEs. The second row shows the price effect, and the third row shows the interaction effect. The result for 2004 is presented alongside for comparison. Among manual workers, the average size-wage gap in 1996 was 16.7%, in which 3.5% was accounted for by the endowment effect. In addition, 3.3% was due to the price effect and 9.9% was due to an interaction effect. If the wage gap of 1996 is considered to be 100, 21% of the gap was due to personnel differences between large firms and small to medium-sized firms. In 2004, the endowment effect explained almost 62% of the size-wage gap. What could have influenced the endowment effect this significantly?

In 1996, it is the tenure that contributed the most to the endowment effect working in favor of large firms, however it is offset by the large (-) effect of unions, yielding the total endowment effect as small as +3.5%.

Table 3.

	1996			2004		
	Composition Effect	Price Effect	Interaction Effect	Composition Effect	Price Effect	Interaction Effect
	(E)	(C)	(CE)	(E)	(C)	(CE)
Education	0.40%	10.00%	0.50%	0.00%	26.00%	0.40%
Job Experience	-5.50%	-1.80%	0.20%	-4.90%	-36.40%	2.80%
Job Experience ²	6.80%	2.10%	-0.60%	9.10%	22.90%	-4.30%
Tenure	8.60%	5.90%	7.30%	13.60%	9.50%	10.60%
Tenure ²	-0.10%	-1.50%	-3.70%	-3.70%	-1.60%	-3.80%
Married	0.30%	-3.60%	-0.20%	0.20%	-2.40%	-0.10%
Technician	1.60%	-0.80%	-0.20%	0.10%	-0.90%	0.00%
Assembly Worker	-0.10%	2.20%	0.00%	1.80%	-1.30%	-0.20%
Board Member	0.00%	-0.10%	0.00%	-0.10%	0.00%	0.00%
Head of Department	0.00%	0.00%	0.00%	-0.40%	0.50%	-0.50%
Deputy Department Head	-0.10%	0.00%	0.00%	-0.50%	-0.10%	0.10%
Section Chief	-0.10%	-0.10%	0.00%	-0.80%	0.10%	-0.10%
Deputy Section Chief	0.00%	0.00%	0.00%	-0.10%	-0.20%	0.00%
Team Lead	0.10%	-0.10%	-0.10%	0.10%	-0.30%	0.00%
Group Leader	0.00%	-0.30%	0.00%	0.20%	-0.20%	-0.20%
License	0.00%	0.30%	0.00%	0.00%	0.70%	0.00%
Daily/Weekly Pay	0.00%	-1.30%	-0.10%	0.00%	-0.60%	-0.40%
Monthly Pay	-1.20%	-4.40%	0.70%	-0.50%	1.10%	-0.20%
Yearly Pay	-0.10%	-0.10%	0.10%	0.00%	0.20%	0.00%
Efficiency Pay	-0.20%	-0.20%	0.20%	-0.70%	0.90%	-0.30%
Labor Union	-6.80%	3.60%	5.70%	2.10%	1.20%	3.00%
Constant	0.00%	-6.60%	0.00%	0.00%	-16.50%	0.00%
Total	3.50%	3.30%	9.90%	15.50%	2.80%	6.70%
Large/Small & Medium Firms Wage Gap (T)=E+C+CE						
Wage difference between large and small-medium firms(T)			16.70%	25%		
% Total (T=100)			100	100		
% Explained (E/T)			21	62		
% Unexplained ((C+CE)/T)			79	38		

Table 4.

	1996			2004		
	Composition Effect	Price Effect	Interaction Effect	Composition Effect	Price Effect	Interaction Effect
	(E)	(C)	(CE)	(E)	(C)	(CE)
Education	2.70%	14.60%	0.50%	2.20%	7.80%	0.20%
Job Experience	-8.50%	8.30%	-1.00%	-4.20%	19.50%	-1.30%
Job Experience ²	6.70%	0.90%	-0.20%	4.70%	-5.20%	0.90%
Tenure	3.90%	1.30%	0.50%	8.50%	-6.20%	-3.80%
Tenure ²	-0.70%	-1.20%	-0.70%	-1.80%	1.60%	1.80%
Married	-0.10%	-4.10%	0.10%	0.00%	0.60%	0.00%
Administrative	-2.20%	-0.10%	0.10%	-1.70%	-1.20%	0.70%
Professional	0.80%	0.50%	0.10%	0.30%	0.40%	0.00%
Semi-Professional	0.40%	0.80%	0.20%	0.30%	1.70%	0.10%
Clerical	0.00%	3.30%	0.00%	0.30%	1.30%	0.20%
Board Member	-1.90%	0.20%	-0.20%	-5.30%	2.10%	-1.80%
Head of Department	-0.30%	-0.20%	0.10%	-1.30%	0.80%	-0.30%
Deputy Department Head	0.10%	-0.50%	0.00%	0.30%	-0.30%	0.00%
Section Chief	0.00%	0.10%	0.00%	0.80%	-0.20%	0.00%
Deputy Section Chief	0.00%	0.00%	0.00%	0.70%	0.00%	0.00%
Team Lead	0.00%	0.00%	0.00%	0.00%	-0.30%	0.00%
Group Leader	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
License	0.00%	-0.80%	0.00%	0.70%	0.80%	-0.30%
Daily/Weekly Pay	0.00%	-0.20%	-0.10%	0.00%	0.00%	0.00%
Monthly Pay	0.00%	-2.10%	0.00%	-0.20%	4.90%	-0.10%
Yearly Pay	-0.70%	-0.30%	0.10%	0.00%	-0.10%	0.00%
Efficiency Pay	0.00%	0.00%	0.00%	-0.30%	3.50%	-0.10%
Labor Union	1.00%	-0.60%	-1.30%	3.60%	-0.40%	-1.50%
Constant	0.00%	-14.60%	0.00%	0.00%	-9.60%	0.00%
Total	1.30%	5.10%	-1.80%	7.60%	21.50%	-5.40%
Large/Small & Medium Firms Wage Gap (T)=E+C+CE						
Wage difference between large and small-medium firms(T)			4.60%	23.70%		
% Total (T=100)			100	100		
% Explained (E/T)			28	32		
% Unexplained ((C+CE)/T)			72	68		

The total endowment effect surged in 2004, mainly due to the contribution of the tenure factor (+13.6% of the total endowment effect of 15.5%). The effect of a union was -6.8% in 1996, and this effect increased to +2.1% in 2004, contributing to increasing the composition effect. Compared to the endowment effect, the price effect, and the interaction effect do not account the size-wage gap to a considerable extent. These results show that manual workers at large firms gain relative benefits from longer tenure and higher union rate, implicating the persistence of the internal labor market policies in that group.

On the other hand, the result non-manual workers presented in <Table 4> illustrates drastically different outcomes. The average size-wage gap for white-collar workers was as low as 4.6% in 1996 but it swelled to 23.7% in 2004. In terms of relative contribution, 28% of the gap was accounted by the compositional difference between the two groups in that year. In 2004, the endowment effect accounted for 32% of the wage gap. That is, despite the surge in the size-wage gap, the proportion of endowment effect did not change much, contrary to the case of manual workers. Instead, the Price effect constituted high percentages in both 1996 and 2004.

It is important to note the change in the contribution of education and work experience to the price effect. Education was the most important factor to constitute the price effect in 1996 but not in 2004. Instead, the importance of work experience notably increased in 2004. For nonmanual workers, the tendency of large firms paying more for the same level of education explained a great part of the size-wage gap in 1996, but now it is the work experience that is more rewarded in large firms, thus contributes to increasing size-wage gap.

These changes can be compared with the recent finding of an increase in the number of experienced workers among white-collar workers at large firms. According to a job moving study by Kim et al. (2008), after the late 1990s, the percentage of workers following the occupational career path (workers whose years of work in the same occupation is longer than their firm tenure) has continued to increase among professional and semi-professional workers, whereas in the manual labor field, the percentage is decreasing. Especially in large firms, the proportion of new recruits entering at the high-rank positions is increasing. This indicates that the internal labor

market, which was a hindrance to white-collar workers wanting to change jobs, is weakening. Granting that workers' movement crossing the firm boundary becomes so common, what does it mean that the return to work experience (not firm tenure) increased more rapidly in large firms? And what does it mean that it became an important cause of increasing size-wage gap for white-collar workers? One possible answer, among many, may be that workers with high productivity are moved to and concentrated in large firms. If this is the case, one may argue that the increase of the size-wage gap is a consequence workers in large firms being paid more for the same years of experience compared to their counterparts in SMEs due to unobserved productivity gaps. This means that as the boundary of corporations are weakened and individualized merit-based compensation becomes widespread for white-collar workers, skilled individuals will flock to larger firms and contribute even more to the pay difference between large firms and SMEs.

In summary, after the economic crisis, the internal labor market changed significantly, but the ways in which it changed differ greatly between the manual and non-manual fields. The results of this study are supportive of the hypothesis that while, for manual workers, the boundary of the internal labor market was reduced to the core group of long-tenured workers, for non-manual workers, the internal labor market has noticeably weakened. It is important to understand that these differing structural changes in the internal labor market all contributed to the widening of the wage gap between large firms and SMEs. And they did through different mechanisms for manual and nonmanual groups; through the increased proportion of long-tenured workers for the former and through the reshuffling of workers by ability for the latter.

VII. SUMMARY AND IMPLICATIONS

This research analyzed the wage gap between large firms and SMEs and its trend over time since early 1980s. Two important points were noted. First, there were two historic moments that contributed greatly to the increase of gap between large firms and SMEs in Korea, the 1987 general strike and the 1997 economic crisis, triggering different mechanisms. The size-wage

gap increase after 1987 was only a temporary phenomenon occurring during the process in which SMEs slowly caught up the pay increase initiated in large firms. On the other hand, the increase of the size-wage gap after 1997 is a consequence of more diverse factors implicating more or less structural changes of the labor market.

Another notable finding is that the cause of the size-wage gap after the economic crisis became quite different between manual and non-manual male workers. In the case of manual workers, the increasing compositional differences between large firms and SMEs contributed most to the increase in disparity, while non-manual workers affected more from the increase in price difference. If manual workers of large firms collect greater wages than their counterparts in SMEs due to their higher tenure, non-manual workers of large firms receive higher wages due to greater compensation for work experience. The result for manual workers in large firms entails the persistence of the internal labor market characterized by higher wages secured through firm tenure, whereas the result for non-manual workers in large firms shows the increased importance of the return to the work experience (not the firm tenure) implicating a development of more individualized “boundaryless career.”

The research started with a question whether the internal labor market in Korea is being strengthened or dismantled. The answer is different depends on who we refer to. The corporate internal labor market still seems to be around in large firms for manual workers but not for nonmanual workers. Not only has the seniority effect been weakened in large firms, the focus of hiring and wage determination has shifted to external work experience. What generated such different developments is a question that should be answered in future studies. What this study emphasizes is the limitation of those perspectives to view the change in the internal labor market as a uniform process, whether it be the selective preservation or the complete collapse, and the possibility of dual process in which different structural changes occur simultaneously in different sectors.

This study’s findings have implications for the recent increase in inequality in Korean society. According to previous studies by Kim and Han (2007), Korean society, since the economic crisis, has been experiencing greater within-class inequality than between-class inequality. Based on the result of

this study, one may reckon that such within-class inequality is caused mainly by the advantages from belonging to internal labor market(organizational assets) in case of blue-collar workers, whereas in the case of white-collar workers, it is caused mainly by the expertise coming from formal educational and job experience(knowledge assets).

Finally, the findings of this study are limited by the limits of the data. The “Basic Survey of Wage Structure” used in this research focuses on regular employees. Therefore, the gap created by employment status could not be considered. However, in order to investigate the long-term size-wage gap, the “Basic Survey of Wage Structure” was an inevitable choice despite its restrictions. Thus, the limitations of these data should be resolved through comparison with other data. Also, this study is limited in that it only focuses on male workers. How the dual structural changes that occurred in manual and nonmanualectors after the economic crisis affected the wage gap between male and female workers, as well as the inequality within female workers are questions that require further research, through which a greater understanding of the structural changes in the Korean internal labor market will be gained.

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