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Florentino Felgueroso

Abstract

This paper provides an empirical evaluation of the effects of the Spanish industrywide collective bargaining on wages. For this purpose, agreed wages have been computed for individuals from a subsample of a Spanish labour force survey and have been compared with their reported wages. A relevant conclusion emerges from this work: sectoral agreements constitute a small interval of minimum wages binding for semi-skilled and unskilled workers. Meyer and Wise approach is used for estimating union wage gains due to industrywide bargainings and for testing the presence of "the sword of justice effect" in Spain.

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1. Introduction

Although the effects of trade unionism and collective bargaining on wage distribution is one of the most frequently investigated topics in labour economics, research has focused in countries with relatively decentralized wage determination systems and a large nonunion sector. Much less attention has been directed to study in which extent trade unionism can alter the distribution of wages in countries with, a priori, more centralized collective bargainings, where terms of resulting agreements are frequently extended to almost all workers.

In such cases, empirical testing of the magnitude of union wage effects for a single country presents various difficulties. Indeed, the absence of this sector prevents us to apply the common methodology, that is, to evaluate existing covered/noncovered pay and earnings dispersion differentials. The single alternative is the definition of an underlying market wage distribution without the presence of centralized collective bargaining. In addition, if centrally agreed wages are just minimum wages, another problem is to possess both series of agreed and effectively perceived wages that allow us to evaluate whether the former are really binding. In effect, unions may attempt to implement an equalitarian wage structure through reduction of wage differentials in national or regional collective agreements; however, the wage determination process can include a substantial amount of firm-level, workplace and individual agreements which can deviate final wage structure from central unions' wage policies.

These two features are present in Spain, the country with the highest unemployment rate of the OECD, and this paper is a first attempt to cover this deficit of empirical literature.

The paper is organized as follows. In the next section, we comment briefly the main characteristics of Spanish collective bargaining structure. The measure of the effectiveness of industrywide agreements is presented in the third section and the empirical setup to measure union wage gains in the fourth section. Results are given and commented in the fifth section, while the sixth contains a summary and a brief discussion of main findings.

2. The main characteristics of Spanish collective bargaining structure

Over the last two decades, the Spanish collective bargaining structure has been developed under a set of rules among which we can highlight the three following ones¹:

A first group of rules is referred to the position of the collective bargaining in the Spanish juridical ordering. In this sense, for all the effects, collective agreements are considered as legal norms, right behind labour laws, but before individual contracts. If there is a conflict with other norms that regulate the same matter, the most beneficial for the workers will prevail. The main consequence of this rule is that the agreed wages are just minima, above the national statutory minimum wage, which can be improved either by individual informal agreements between employers and workers or by collective agreements at inferior levels, like at firm or at regional level in the case of a previous national industrywide agreement, for example².

A second rule comes from the so-called 'principle of general effectiveness' which states that regardless their union or employer association membership, the agreed labour conditions are legally enforceable for all workers and firms included in their corresponding scope of bargaining. This rule of ex-ante general effectiveness is a peculiarity in the European bargaining systems and an important implication of this principle is that it does not exist any legal noncovered sector when labour conditions are agreed at regional or national industrywide level.

A third set of rules bears on who is entitled to negotiate. At superior firm-level bargaining, the numerous requirements needed in order to the right to bargain tend to favour the existence of a few central trade unions and provincial or national industrywide bargainings³. All of these requirements are centred on the results of personnel representatives elections, open to all workers. However, there is not recognition of legal worker representatives in firms with less than six employees and majority is required for their election in firms with less than eleven employees.

The combination of these rules as well as other political and economic

circumstances have provided spanish unions with an potentially strong instrument to put into practice their wage policy: the sectoral bargaining agreements. In absence of precise official data, we could venture that contracts negotiated under sectoral conditions represent at least about 75% of total contracts, excluding Public Administration. Even though collective bargainings can take place successively at various levels starting from national agreements and giving rise to the so-called "cascade bargaining effect system" (see Lorences, 1986), this issue is rarely used. In general, minimum wages are fixed at a single level, being the provincial industrywide predominant. Formal firm-level agreements only represents about 13% of workers covered by a collective bargaining agreement and, in many cases, it constitutes the unique level of bargaining for these workers.

Each sectoral collective agreement fixes minimum wages for all working categories (except for high management and in some cases for titulated experts). However, some doubts remain in relation to the compliance of sectoral agreed wages. The main reason for this suspicion is the large presence of small firms without enforced control of agreed terms, because of both the absence of legal representation (around 70% and 83% of the spanish firms have less than six and eleven workers, respectively) and the low rate of unionized workers (between 10% and 15%).

A further question is whether sectoral minimum wages are really binding for all workers. In addition to the formal firm level bargaining, we do not know anything about informal agreements that can separate wages from those previously bargained at sectoral levels. The suspicion, in this sense, comes from the fact that, the bargaining power of the two majors unions, and hence their ability to survive as political institutions, should depend on the results of the elections. In this context, we can expect that unions attempt to compress earnings distribution according to preferences of median voter (see Freeman and Medoff, 1984). In some sectors, like in the manufacturing industry or the construction sector, this policy should imply the increase of the relative wages of unskilled and semi-skilled workers. However, sectoral wages are only minimum wages, and informal agreement between firm and worker is legally recognized.

The occurrence of these two facts at the same time (the non-compliance

and the non-binding of agreed minimum wages), would limit the expected union compression of earning distribution. The next section is dedicated to bring some evidence on these two suspicions.

3. The measure of industrywide bargaining effectiveness

In Spain, the current ways of studying the relation between the bargained wages and those effectively perceived by the employees are scarce. The major problem rises from the non-existence of any official source that provides the agreed wages in the approximately five thousand collective agreements that are in force at all levels. The only alternative for the researcher is to create his own data base. The precedent of this kind of work is Lorences, Fernández and Rodríguez (1994), who have studied the evolution of agreed conditions in the provincial bargainings for the metal and the construction sectors between 1978 and 1991.

The data used in this paper are from an original data base. This has been created to measure the differences between superior firm-level agreed and individual perceived wages and has been built from two sources. The first one is the *Class Structure, Consciousness and Biography Survey*. This survey, realized between December 1990 and March 1991, provides information about work conditions for 6632 individuals, among whom 2091 were salaried workers in the private sector at that time. On the other hand, we have got together the minimum labour conditions that were agreed in national and provincial collective bargainings and that were in force at 30 November 1990.

The agreed hourly wages, calculated individual by individual, according to his more likelihood professional status, include seniority premia and overtime work rewards. Since we were interested in evaluating the weight of these last concepts within total retributions, we defined various types of agreed wages. So, the "guaranteed hourly retribution" (hereafter quoted as GHR) can be defined as the guaranteed minimum wage for all individuals with a particular professional status in an ordinary working day. Besides, the "guaranteed hourly retribution according to seniority and overtime work" (GHRSO) includes seniority premia and overtime work rewards. The lack of information prevents us from including other premia as complements of productivity, risk or night work. However, as we shall see in the following

section, the absence of these concepts does not modify too much our main conclusions⁴.

The analysis presented here focuses on the six major industrial sectors and the construction sector. Nearly all their workers had a minimum wage fixed either in a interprovincial or provincial agreement. In these seven sectors, formal collective bargaining at firm-level only represented about 12% of all workers covered by a collective agreement.

Our final subsample includes 491 covered individuals who reported their labour retributions and provides enough information about their labour profile. This information enables us to determine their professional status and their minimum agreed wage at sector-level.

In Figure 1, histogram of GHR and RHR are represented for the overall subsample. In Table 1, means and coefficients of variation of GHR, GHR and RHR and individual percent gap between GHR and RHR (quoted as DIFHR) are reported by levels of skill and professional status. Finally, boxplots of the two last variables are presented in Figures 2 and 3, by levels of skill.

A first observation is that agreed earning dispersions are positively related with the category level. These results coincide with those reported by Lorences, Fernández and Rodríguez (1994). Coefficients of variation of the GHR are very similar to those obtained by these authors for the metal and construction sector and can be interpreted as an evidence that the standard-rate policy is more significant for unskilled and semi-skilled workers than for higher skilled categories and for blue-collar than for white-collar workers (the coefficients of variation are about 15 and 24% respectively).

The inclusion of variable complements as seniority premia and overtime work rewards increase means and dispersion for each profesional status. However one of the most important conclusion is that for unskilled and semi-skilled workers, agreed wages seem to constitute a small interval (see Figure 2) of minimum wages with a mean about 65% above national statutory minimum wage.

On the other hand, reported earning dispersions are also positively

related with skill levels, and they are much higher than those for agreed retributions, showing two very different realities (see average gaps in Table 1 and their boxplot in Figure 3): the agreed minimum wages are not binding for a relevant part of skilled and highly skilled workers and the non-compliance is frequent amongst semi-skilled and unskilled workers.

In Table 3, the results from a simple estimation of determinants of GHR, GHRSO and RHR are presented. The comparison of estimated coefficients seems to show the attempt to reduce earning differences between unskilled or semi-skilled and higher skilled workers, between blue-collar and white-collar and inter-industrial earning differences. On the other hand, while overtime works are positively related with agreed wages, it is not so with reported wages. It shows that one of the most important factors to belong to the 'black labour market' segment is the extension of the daily work journey without its legal retribution.

4. The measure of industrywide bargaining wage gains

When considering the impact of trade unions on wages, empirical works using individual data commonly focuses on the concept of 'union wage gap', defined by Lewis (1986) as the difference between the union wage and the nonunion wage for an individual. However, our interest resides in estimating the individual 'wage gain' due to sectoral agreements, which can be defined following Lewis' terminology, as the difference between his or her actual expected wage with which he or she would receive in an hypothetical economy with no industrywide bargainings at all.

For this purpose, agreed wages for all the individuals of our sample are available and, then, we can realize a precise evaluation of the individual effects of the sectoral agreements. However, our study is subject to an important restriction: only cross-sectional data for one year are available.

This last limitation and conclusions of previous sections motivate our analysis following the approach presented by Meyer and Wise (1983, a and b) to study the US federal minimum wage effects on wage and employment distribution. These authors focus *'on the explicit parametrization of the effect of the minimum wages on the joint distribution of wage rate and*

employment outcomes that would exist in absence of the minimum'. This procedure provides parameter estimation for the market wage function using data on a single cross-sectional distribution of wages and enables us to compare expected earnings of individuals without sectoral agreements and the actually expected earnings of these same individuals.

In this section, we present the method to estimate union wage gains, introducing Meyer and Wise approach in its simple version, results obtained are commented in the following section.

Suppose that in the absence of sectoral minimum wages, the hourly wage that individual i would receive can be expressed by W_i^* . As Meyer and Wise, we shall refer to it as the "underlying market wage". It is not observable, as following the common use in labour economics, suppose that it could be represented in the semi-logarithmic form:

$$\ln W_i^* = \alpha_0 + X_{1i}\alpha_1 + \mu_{1i} \quad (1)$$

where X is a vector of individual and labour market characteristics and μ_1 represents a perturbation term.

On the other hand, suppose that, in our underlying market, employment relationship is defined by

$$Y_{1i}^* = \beta_0 + X_{2i}\beta_1 + u_{2i} \quad (2)$$

where Y_{1i}^* denotes an index such that individual i is employed if $Y_{1i}^* > 0$, and is unemployed otherwise, and μ_2 represents the perturbation term.

Now suppose that a minimum wage is set for individual i in industrywide bargaining table at level M_1 and that firms and workers take them as exogenous. Some persons, who in the absence of the minimum wage would be paid a wage below it, are presumed to receive the minimum, with a probability P_1 , others, because of noncompliance, shall continue to be paid below their corresponding minimum wage, with a probability P_2 . The rest of subminimum workers are presumed to go to unemployment with a probability $1-P_1-P_2$.

Further assumptions are that aggregate labour supply is constant, perturbation terms in (1) and (2) are not correlated and there are not spillover on wages perceived by individuals with an underlying market wage above their corresponding minima. Moreover, taking into account possible measurement errors in minimum wages and problems derived from the use of punctual values in the context of continuous distributions, we consider that minimum wage corresponding to individual i belongs to a little interval $[M_{1i}, M_{2i}]$. Then, we can classify each individual from our sample into one of the following four groups or situations: (1) his observed wage (W_i) is greater than minimum wage when $W_i > M_{1i}$, (2) equal to minimum, $M_{1i} \leq W_i \leq M_{2i}$, (3) lesser than the minimum, if $M_{1i} > W_i$ and (4) individual is unemployed, that is $W_i = 0$.

If we define,

$$\begin{aligned} w_i &= \frac{\ln W_i - \alpha_0 - X_i \alpha_1}{\sigma_\mu}; m_{1i} = \frac{\ln M_{1i} - \alpha_0 - X_i \alpha_1}{\sigma_\mu}; \\ m_{2i} &= \frac{\ln M_{2i} - \alpha_0 - X_i \alpha_1}{\sigma_\mu} \end{aligned} \quad (3)$$

denoting ϕ y Φ , the standardized normal density and distribution function, and taking only into account data for employed individuals, the observed wages may be classified in three sections in terms of the underlying wage distribution:

$$\begin{aligned} h_1(W_i) &= \frac{Pr[1]}{1 - Pr[4]} = \frac{1}{\sigma_\mu} \cdot \frac{\phi(w_i)}{1 - \Phi[m_{1i}] \cdot (1 - P_1 - P_2)} && si \ W_i > M_{2i} \\ h_2(W_i) &= \frac{Pr[3]}{1 - Pr[4]} = \frac{\Phi[m_{2i}] - \Phi[m_{1i}] \cdot (1 - P_2)}{1 - \Phi[m_{1i}] \cdot (1 - P_1 - P_2)} && si \ M_{1i} \leq W_i \leq M_{2i} \quad (4) \\ h_3(W_i) &= \frac{Pr[2]}{1 - Pr[4]} = \frac{1}{\sigma_\mu} \cdot \frac{\phi(w_i) \cdot P_1}{1 - \Phi[m_{1i}] \cdot (1 - P_1 - P_2)} && si \ W_i < M_{1i} \end{aligned}$$

where the common denominator in (3) can be interpreted as the probability that an individual employed in the underlying market remains employed after the establishment of minimum wages. The numerators represent the probability that

a person employed in the underlying market has an observed wage above the minimum, equal to the minimum and below the minimum wage, respectively.

Using maximum likelihood procedure, we can obtain estimations for $\alpha_0, \alpha_1, \sigma_\mu, P_1$ and P_2 and wage gains due to industrywide minimum wages for actually employed worker i defined by

$$G_i = \frac{e^{\hat{w}_i} - e^{\hat{w}_i^*}}{e^{\hat{w}_i^*}}$$

where

$$\begin{aligned} \hat{w}_i^* &= E[\ln \hat{w}_i^*] = \hat{\alpha}_0 + X_i \hat{\alpha}_1 \\ \hat{w}_i &= E[\ln \hat{w}_i] = \frac{(\hat{\alpha}_0 + X_i \hat{\alpha}_1) \{1 - \Phi[\hat{m}_{2i}] + \hat{P}_1 \Phi[\hat{m}_{1i}]\}}{1 - \Phi[\hat{m}_{1i}] \cdot (1 - \hat{P}_1 - \hat{P}_2)} \\ &+ \frac{\hat{\sigma}_\mu \{\phi(\hat{m}_{2i}) - \phi(\hat{m}_{1i}) \cdot \hat{P}_1\}}{1 - \Phi[\hat{m}_{1i}] \cdot (1 - \hat{P}_1 - \hat{P}_2)} \\ &+ \frac{\{\Phi[\hat{m}_{2i}] - \Phi[\hat{m}_{1i}] (1 - \hat{P}_2)\} \ln M_i}{1 - \Phi[\hat{m}_{1i}] \cdot (1 - \hat{P}_1 - \hat{P}_2)} \end{aligned}$$

5. Results

Estimates of the parameters in the model of previous section (quoted hereafter as Model I) are shown in Table 4. As in Meyer and Wise, we can compare our parameter estimations for the underlying market wage function with their corresponding least square estimations. These can be considered as an approximation for the observed wage function parameters without accounting for wage distribution discontinuity because of the imposition of minimum wages. As expected, the estimated returns to education, working experience, job tenure, as well as inter-industrial wage differences and the relative wage of white-collar workers would be higher in the underlying market. On the other hand, the estimated variance of underlying wages is higher than the variance of the observed wages, which is consistent with the expected earnings compression derived from the effects of industrywide bargainings.

The estimations of P_1 and P_2 indicate that only approximately 5 per cent

of individuals with an underlying market wage below their corresponding minimum wage should go to unemployment because of sectoral agreements. However, robustness in Meyer and Wise approach to estimate the effects of minimum wages on employment is dubious. Brown, Gilroy and Kohen (1982) in their survey of the minimum wage literature and, more recently, Dickens, Machin and Manning (1994) who have applied it for the UK, have criticized this technique, stating that estimations of unemployment effects depend sensitively on the functional form assumed for the distribution of wages.

Another criticism on the simple version presented in section 5 is to consider the same probabilities P_1 , P_2 and P_3 for all the subminimum individuals, that is, the random assignment to the three possible situations (to have a job in the 'black market', to become unemployed or to perceive the minimum wage). Meyer and Wise (1983,a) considered the parametrization of P_3 in a further version of their model. Here, in Model II, we have parametrized P_1 and P_2 following the common procedure of estimating the determinants of union status, since Lee (1978). Apart the parametrization of P_1 and P_2 , difference with Model I comes from the fact that we do not envisage any potential minimum wages effects on employment and that selection process is only considered for subminimum workers.

As we can see in Table 3, parameter estimation of underlying wage function does not vary in relation to Model I, basically due to the fact that probit estimates are not significant. Similar results are obtained using other parametrization procedures (as the model of Abowd and Farber (1983)) supporting the random sampling of subminimum workers to the black labour market and the legally covered sector.

The estimation of industrywide bargaining wage gains are presented in Table 4. A first observation is that they are lower when P_1 and P_2 were parametrized, but conclusions are very similar from both models: wage gains are higher for semi-skilled and unskilled workers, blue-collar and younger workers and for female.

6. Conclusions

This paper presents evidence on the consequences of sectoral agreements on wages in the Spanish industry. For this purpose, individual reported retributions have been compared with those agreed in sectoral bargaining for a subsample of a Spanish labor force survey. Some relevant conclusions emerge from a simple descriptive analysis of the data set. So, agreed wages are binding, in general, only for semi-skilled and skilled workers and, precisely, their agreed wages show a very low dispersion. A black labour market appears (because of non compliance) amongst this kind of workers, being the extension of working day without legal retribution one of the major reasons to explain that some observed wages are lesser than minimum agreed wages. On the other hand, among higher skilled workers, other agreements that separate their retributions from those previously bargained at sectoral level seem to be frequent. These two last features (the non-binding and non-compliance of sectoral agreed wages) limit the unions' attempts to compress the earnings distribution, as we can see by comparing least squares parameters estimation of agreed and reported wages functions.

The classification of our individuals into three groups (regarding whether their reported wages are greater, equal or lesser than their corresponding agreed wages) allowed us to estimate industrywide bargaining 'wage gains' for different groups of workers, following Meyer and Wise approach. Estimated wage gains strongly depend on whether we take into account agreed wage effects on employment and we parametrize the assignment of subminimum workers to the black labour market and to the legally covered sector. However, in each case, we obtain substantially higher wage gains for semi-skilled and unskilled than for higher skilled workers, for blue-collar than for white-collar and for female than for male, supporting evidence for the presence of the "sword of justice effect" of trade unionism in Spain.

DATA APPENDIX

GHR: guaranteed hourly retributions
GHRSO: guaranteed hourly retributions according to seniority and overtime work rewards
RHR: reported hourly retributions
Blue-collar: 1, if blue-collar
Sector 1: Food and drink
Sector 2: Construction
Sector 3: Paper and paper products
Sector 4: Timber and wooden furniture
Sector 5: Chemical industry
Sector 6: Textiles, footwear and clothing
Sector 7: Metal industry.
Overtime work: 1, if working hours above agreed
School: finished schooling years
Work exp.: elapsed years since the first job
Tenure: number of triennia of working experience in the same firm
Gender: 1, if female
Children: number of children according to income tax credit
Married: 1 if not married

NOTES

1. Cfr. Jimeno and Toharia (1993) and Milner and Metcalf.(1994) for further details on characteristics of the spanish collective bargaining structure.
2. Reform of the Workers' Charter, in 1994, has provided for the possibility to break the general effectiveness rule at superior firm-level.
3. About 82% of representatives who bargain agreements at superior firm-level are affiliated to the two majors unions (UGT and CCOO).
4. Complements of productivity constitutes generally only a residual clause in sectoral agreements, due largely to the fact that the incentive schemes are decided at firm-level.

Figure 1. Histograms of GHRSO and RHR

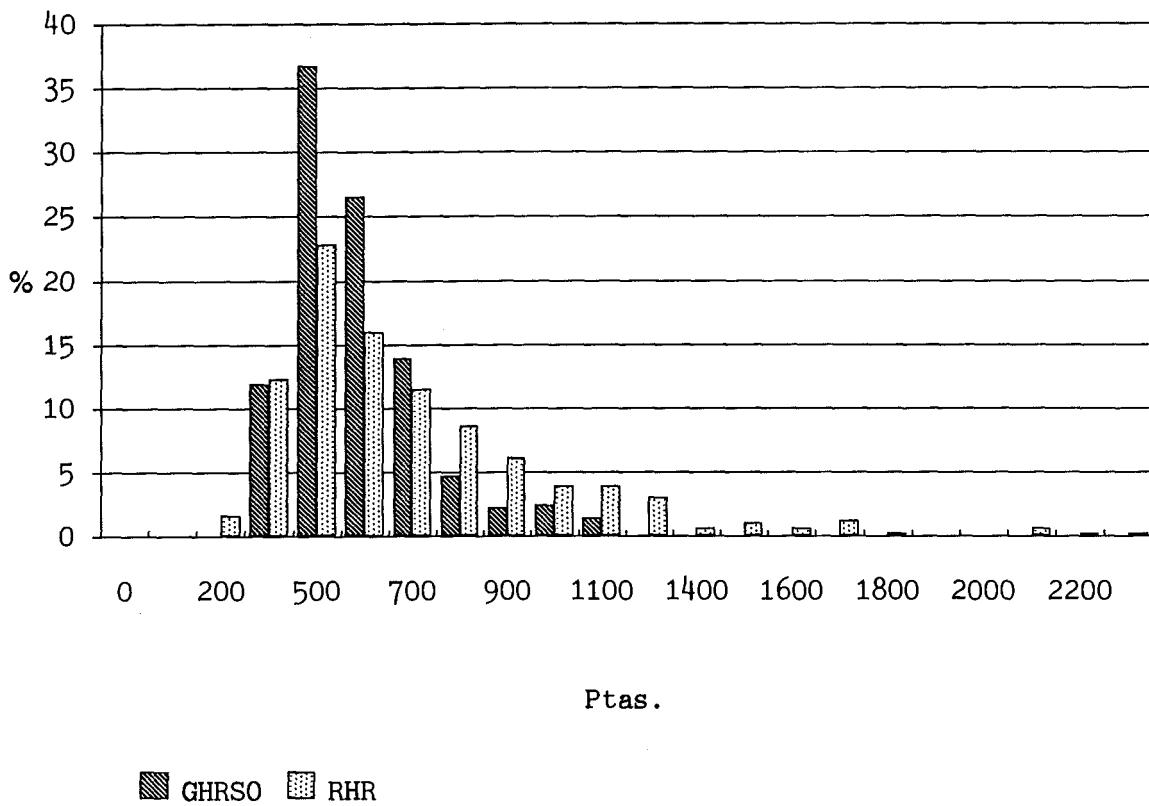


Table 1
Guaranteed and reported hourly retributions

	GHR		GHRSO		RHR		DIFHR
	Mean (Ptas.)	C.V. (%)	Mean (Ptas.)	C.V. (%)	Mean (Ptas.)	C.V. (%)	Mean (%)
All workers	546,18	23,39	582,96	24,79	733,20	57,71	22,48
High skilled	724,46	20,99	791,43	20,71	1245,34	51,15	57,54
Skilled	536,29	14,46	573,32	14,21	717,90	35,56	25,23
Semi-skilled	476,21	12,01	497,72	14,04	497,68	28,89	0,36
Unskilled	462,67	11,99	482,80	13,45	480,29	26,46	0,29
White-collar workers	645,76	24,26	690,20	25,52	1021,39	58,21	44,97
Blue-collar workers	503,38	15,04	536,97	16,99	606,07	35,27	12,42

C.V. = coefficients of variation

Table 2

OLS estimates of agreed and reported retributions
(t-statistics in parentheses)

	Log GHR	Log GHRSO	Log RHR
Highly skilled	0,351 (15,014)	0,370 (15,575)	0,674 (11,920)
Skilled	0,127 (7,250)	0,123 (6,893)	0,281 (6,578)
Semi-skilled	0,030 (1,451)**	0,026 (1,284)***	0,031 (0,630)***
Blue-collar	-0,087 (-5,897)	-0,088 (-5,932)	-0,165 (-4,664)
Sector 1	-0,177 (-5,981)	-0,113 (-3,846)	-0,133 (-1,892)
Sector 2	0,004 (0,286)***	0,005 (0,328)***	-0,095 (-2,602)
Sector 3	0,055 (2,485)	0,053 (2,389)	-0,151 (-2,861)
Sector 4	-0,119 (-5,087)	-0,107 (-4,575)	-0,337 (-6,067)
Sector 5	0,038 (1,827)*	0,007 (0,337)***	-0,090 (-1,825)*
Sector 6	-0,214 (-8,255)	-0,206 (-7,998)	-0,320 (-5,202)
Tenure	-	0,030 (5,316)	0,043 (3,148)
Tenure ²	-	-0,002 (-3,029)	-0,003 (-1,828)
Overtime work	-	0,122 (7,947)	-0,162 (-4,441)
(Constant)	6,232 (279,522)	6,224 (274,403)	6,396 (118,276)
Adjusted R ²	0,625	0,676	0,549

Note:

*, ** and *** indicate statistical significance at the ten and fifteen percent and not significance at the fifteen percent level respectively.

Figure 2. Boxplot of GHR50 and RHR by skill levels

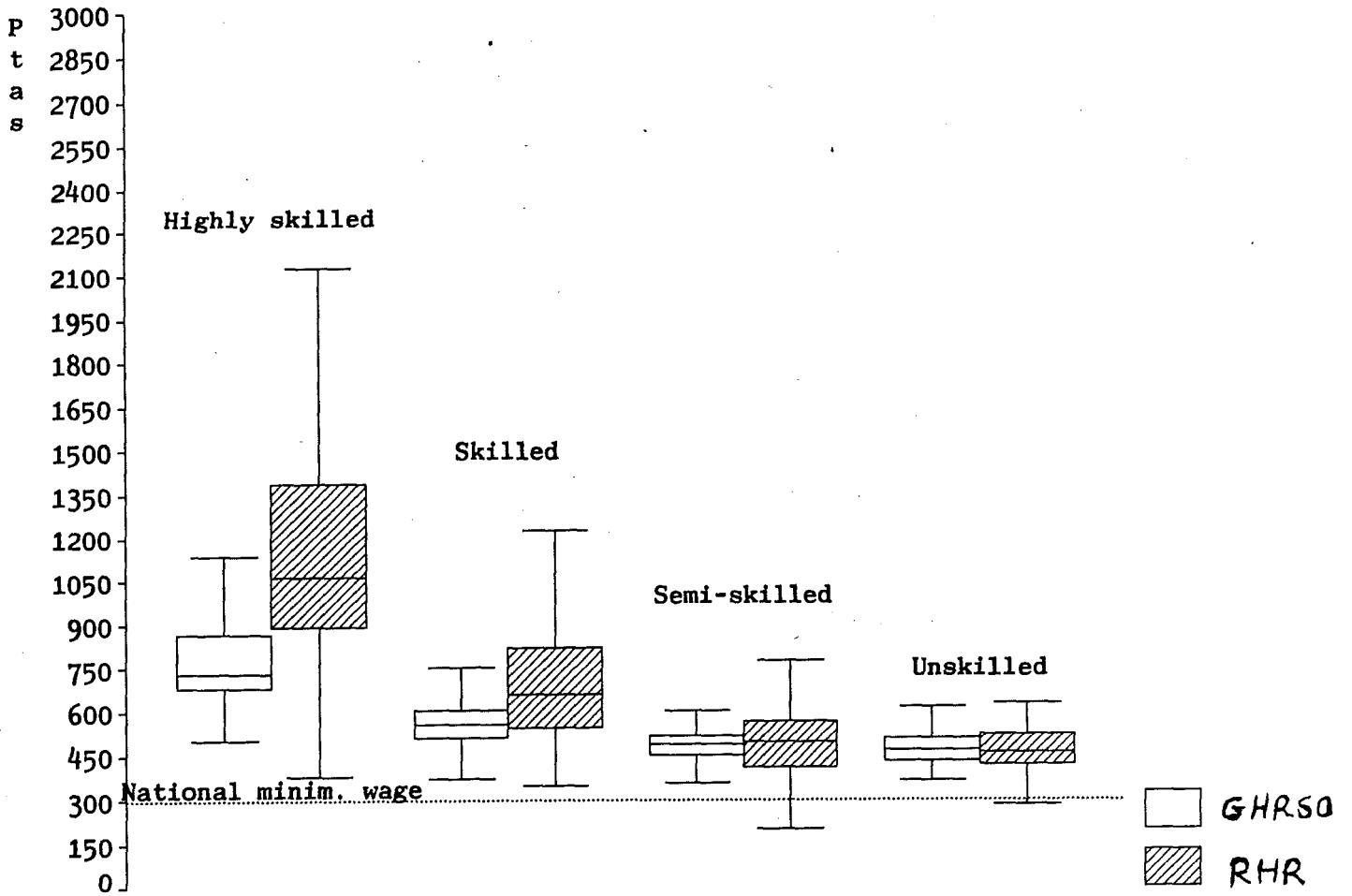


Figure 3. DIFHR by skill levels

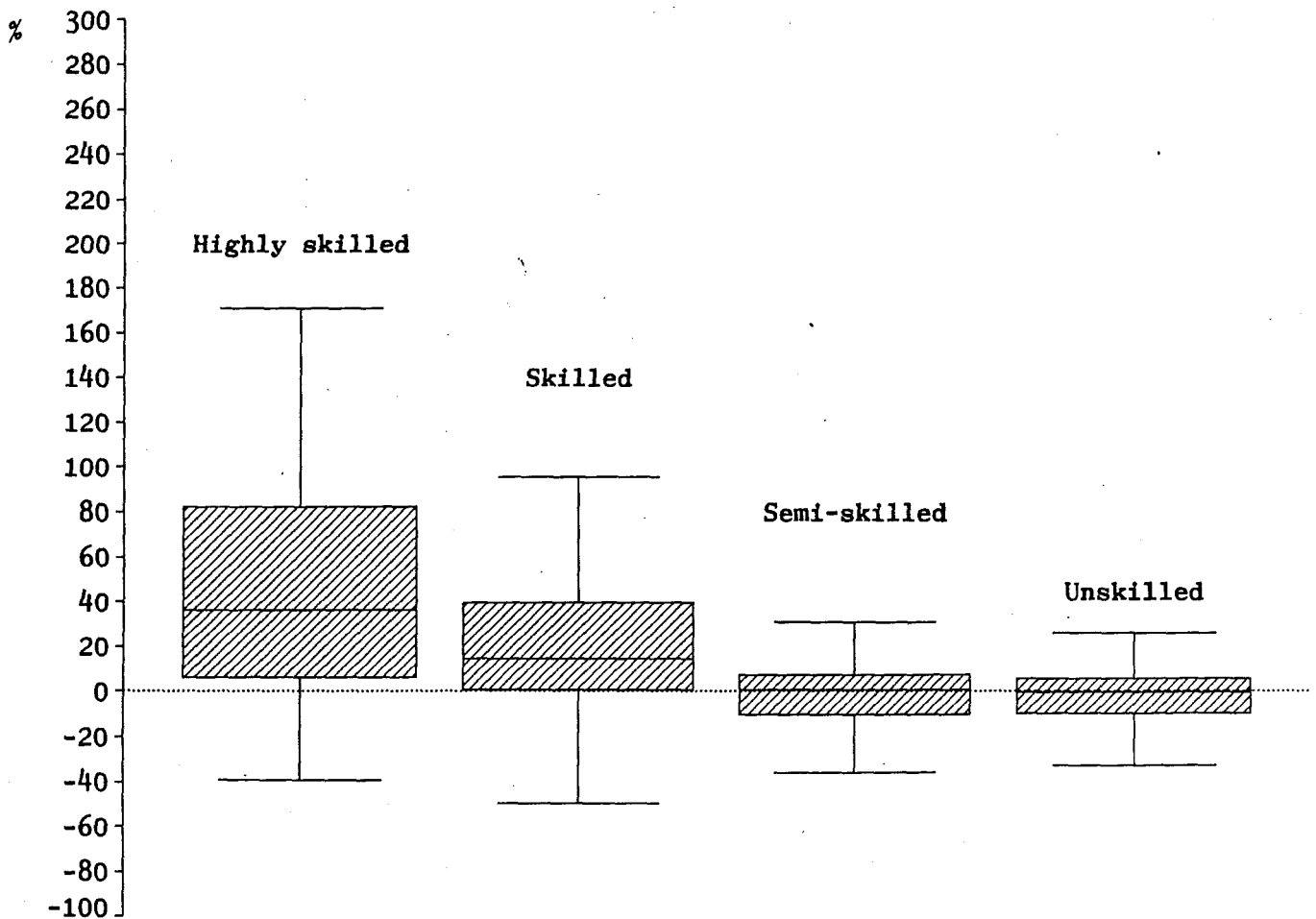


Table 3
Parameter estimates of Models I and II
(t-statistics in parentheses)

	O.W.F. OLS	U.W.F. MODEL I	U.W.F. MODEL II	PROBIT MODEL II
(Constant)	6,111 (68,272)	5,926 (46,807)	5,935 (52,612)	4,314 (1,025)
School	0,040 (7,857)	0,048 (6,983)	0,048 (7,473)	0,015 (0,405)
Work exp.	0,025 (5,848)	0,031 (5,472)	0,031 (5,714)	2E-04 (0,006)
Work exp. ²	-3E-04 (-3,430)	-4E-04 (-3,303)	-4E-04 (-3,382)	2E-05 (0,033)
Tenure	0,034 (2,283)	0,033 (1,621)	0,031 (1,666)	0,175 (1,629)
Tenure ²	-0,002 (-1,556)	-0,002 (-1,028)	-0,002 (-1,186)	-0,015 (-1,327)
Gender	-0,233 (-5,942)	-0,271 (-5,505)	-0,270 (-5,429)	-0,244 (-0,876)
Sector 1	-0,159 (-2,203)	-0,210 (-2,276)	-0,217 (-2,337)	0,226 (0,496)
Sector 2	-0,083 (-2,103)	-0,129 (-2,600)	-0,128 (-2,585)	-0,016 (-0,058)
Sector 3	-0,046 (-0,832)	-0,138 (-1,920)	-0,146 (-2,041)	0,698 (1,827)
Sector 4	-0,255 (-4,366)	-0,323 (-4,195)	-0,321 (-4,138)	-0,181 (-0,528)
Sector 5	-0,024 (-0,470)	-0,008 (-0,129)	-0,006 (-0,099)	-0,123 (-0,245)
Sector 6	-0,209 (-3,179)	-0,219 (-2,683)	-0,219 (-2,681)	-0,133 (-0,285)
Blue-collar	-0,323 (-8,336)	-0,348 (-6,758)	-0,346 (-7,288)	-0,347 (-1,031)
Log GHRSO				-0,635 (-0,967)
Children				-0,025 (-0,215)
Married				-0,141 (-0,499)
σ	0,3110	0,358 (24,987)	0,358 (24,543)	
P ₁		0,399 (4,798)		
P ₂		0,554 (3,845)		
Adjusted R ²	0,518			

Note: O.W.F. : observed wage function; U.W.F.: underlying wage function

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Table 4
Industrywide bargaining wage gains

	Model I	Model II
All workers	11,95	9,26
Highly skilled	8,24	6,19
Skilled	10,87	8,57
Semi-skilled	16,15	12,57
Unskilled	14,61	11,03
White-collar	7,63	5,71
Blue-collar	13,93	10,89
Age		
18-24	17,41	13,87
25-54	10,26	7,86
55-65	11,27	8,40
Sector 1	13,15	12,75
Sector 2	15,24	11,41
Sector 3	15,38	19,06
Sector 4	20,02	15,30
Sector 5	8,81	5,26
Sector 6	12,58	9,09
Sector 7	7,85	5,08
Male	11,13	8,59
Female	15,22	11,93

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