# Union Wage Premium in Turkey

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Prelimenary version

#### Abstract

This paper examines the union wage premium for the wage and salary workers in Turkey using Household Budget Survey (2006) published by Turkstat. We take ordinary least square results as benchmarks and employ propensity score matching techniques to overcome the potential sources of bias due to endogeneity and selection problems. We find that union wage premiums differ in private sector and public sector. The propensity score matching techniques suggest slightly greater estimates for the union wage premium than the OLS.

#### 1 Introduction

Unions are important for various reasons. They enforce formality, compress wage dispersion, provide training, and more importantly supply cash and in kind benefits to the members through collective bargaining agreements.

The obstacles hampering the unionization attempts are ubiquitious in Turkey. However, if the benefits are as large as presupposed the workers could put effort to overcome these obstacles. One has to compare the real benefits to real implicit and explicit costs of union membership.

There has been no study of union wage premium in Turkey based on sound economic analysis. <sup>1</sup> Hence there is no ground to assess the relative

<sup>&</sup>lt;sup>1</sup>The superficial comparisions of average wages of union members and non-members indicate a premium as large as 50-100%. The paper makes it clear that these comparisons do not make any sense since there is no control for observed characteristics of union members that would provide higher wages even in they were non-unionized.

benefits that unions provide to their members.

This paper is first on the union wage premiums in Turkey. We find that depending on the sector, the unionized workers could earn than 0.10 to 0.25 log points more in terms of net monthly wages. We know that our analysis is limited by the data quality.

The paper is organized as follows. The next section reviews the related studies and findings for other country cases. The third section gives a brief background on the industrial relations framework in Turkey and provides a descriptive analysis. In the fourth section we discuss the econometric methods, OLS and propensity score matching and provide the relevant findings. The fifth section concludes.

#### 2 Related Literature

The importance of matching in terms correcting the 'bias' in OLS regression is thoroughly explained in Myoung-Jae Lee (2005) [7]. The relative success of various propensity score matching methods is convincingly demonstrated in Dehejia and Wahba (2002) [2].

Alex Bryson (2002) is the first study to employ propensity score matching techniques to evaluate the union wage premium. He finds that although the raw -OLS- estimates indicate 17-25% union wage premium in the British private sector the post-match estimation merely shows a difference of 3-6%. [1].

In contrast, Özkan Eren (2007) [3] using PSID data for 1993 and restricting the data to private sector finds that linear regression method underestimates the union wage premium. More importantly using propensity score matching and avoiding log transformation of the wages the paper provides a more reliable estimation, 21.5~% for the premium.

İlkkaracan and Selim (2002) [9] is the only study which has an estimation the effect of collective labor bargaining on montly wages based on Census Survey of 1990 and Household Expnediture and Income Survey of 1994. They find a very high effect compared to international studies; 54 % collective agreement premium. Since in their paper they have not indicated how they had constructed their 'collective labor agreement', we have little room to

infer why the effect could be as great as they have observed.

Table 1: Studies on Union Wage Premiums

Country	wage	dispersion
Mexico	10-15%	lower
Brazil	5~% to $12~%$	higher
Uruguay	5%?	
South-Africa	10% to $20%$	lower
Ghana	6% - $16%$	lower
Senegal	- 13%	
Zimbabwe	-17 %	
Malaysia	15%- $20%$	
S. Korea	3% -7%	

According to the Table 1 the union wage premiums are mostly in the range of 5-20%. The common finding in these studies is that the unions decrease the pay inequality. [4]

In textile industry, Lall (2005) [6] undercovers that legal minimum wage earners could earn 350 TL monthly. The registered unionized workers could get 450-500 TL and the registered non-unionized workers could earn 350-500 TL. The main advantages of unionization lies in the fringe benefits and bonuses. With the side payments the monthly wages of unionized workers went up to 620-780 TL whereas the total monthly wages of non-unionized workers could increase to 350-700.

# 3 Union Wage Premium

# 3.1 Collective Bargaining in Turkey

If there is more than one establishment belonging to the same employer in the same economic activity, only one collective bargaining procedure is conducted. This is referred to as 'enterprise-level' collective bargaining. A 50% threshold in terms of the number of workers covered in all establishments applies in the case of enterprise-level collective bargaining. The Law on Collective Bargaining Agreement, Strike and Lockout does not recognise 'industry-level' collective bargaining. The most common form of collective bargaining in Turkey is therefore enterprise-level collective bargaining.

In 2006, a total of 1,704 collective agreements were concluded in Turkey. The public sector accounted for about two thirds of these agreements. The collective agreements were mainly concluded at enterprise level rather than establishment level, covering 78% of all workplaces and 67% of all workers, or a total of 304,392 workers. Some 61% of these workers were found in the private sector.

In Turkey, collective agreements are signed for a specified period of no less than one year and no more than three years. A regular cycle has to be observed therefore in the country's collective bargaining process, as collective bargaining is usually set for two years. The relatively low coverage rate in 2006 partly stems from this pattern of collective bargaining. Nevertheless, looking at figures for previous years, the collective bargaining coverage rate in terms of the number of agreements concluded in a given year has never been that high in Turkey, peaking at only about 29% in 2001 over a six-year period.

Table 2: Collective Bargaining Coverage and Sectoral Shares, 2006

Sector	Sectoral CA	Sectoral Share
	Covering Ratio (%)	of Wage-earners (%)
Electricity, gas and water	76.4	1.4
Mining and quarrying	29.1	1.9
Transport, storage and communication	20.8	7.9
Manufacturing	18.1	48.1
Other services	5.8	1.6
Financial Intermediation	5.3	1.8
Health and Social Work	3.8	2.1
Real estate, renting and business act.	3.7	6.8
Wholesale and retail trade	3.6	15.4
Hotels and restaurants	3.1	4.3
Construction	1.7	6.1
Education	1.3	2.7
TOTAL	13.3	100

Source: BETAM, Research Brief No. 28, 10.03.2009

#### 3.2 Descriptive Analysis

The anchor seems to be the minimum wages for the majority of the workers. The minimum wages are in turn determined by the political authority. The productivity increases would not be considered as a main determinant of the minimum wage. Rather the political cycles and ex-post adjustments to the external shocks are influential in the level minimum wages.

Table 3: Minimum wage amount and percentage change, by age group, 2001-2007

	Workers aged 16+		Workers aged 16-	
	Minimum wage	Growth rate (%)	Minimum wage	Growth rate (%)
	(gross in Euro)		(gross in Euro)	
2001	138.4	-30.2	117.3	-30.6
2002	164.5	18.9	139.9	19.3
2003	180.7	9.8	151.5	8.3
2004	244.1	35.1	207.7	37.2
2005	291.3	19.3	247.9	19.3
2006	293.6	0.8	248.8	0.4
2007	321.1	9.4	270.9	8.9

While only 10% of workers in public enterprises receive the minimum wage equivalent, 70% of people working in the private sector receive wages close to the minimum wage (less than 1.05 times the minimum wage). As only a small proportion of workers are covered by collective agreements, the wages of private sector workers who receive more than the minimum wage and of unregistered workers in the informal sector are more competitively set.

Five different categories of workers are defined with regard to wage setting mechanisms in Turkey: namely, civil servants, employees of state-owned enterprises, employees covered by collective agreements in the private sector, formal private sector employees not covered by collective agreements, and informal sector employees. Substantial wage differentials are evident between these five categories, mainly due to the prevailing wage setting mechanism in each category. In two of the five categories – namely, employees of state-owned enterprises (who make up about 10% of manufacturing employment), where the government plays a key role in wage setting, and private sector employees covered by collective agreements (who account for around 20% of employees in private manufacturing) – wages are considerably higher compared with the other three categories.

The empirical analysis is based on the Household Budget Survey, 2006. We have limited the sample to cover only those individuals earning a wage or a salary.

About 35% of the workforce is informal in the sense that they are not for-

Table 4: Monthly Wages according to Social Security

Social Security	mean	Median	$\operatorname{sd}$	N
SSK (covering workers)	741.1137	600	498.8762	2973
Emekli S. (covering government officials)	1152.061	1042.5	529.8529	958
Bag-Kur (covering self-employed)	1509.156	750	2248.315	45
Other	804.68	700	737.5522	25
Not Covered	402.8635	375	343.6922	2483
Total	677.8754	520	553.1424	6484

mally recognized by a social security institution. The wages of the informal workers are almost 50% lower than the wages of the formal sector workers.

Table 5: Monthly Wages according to Firm Size

Firm Size	mean	Median	$\operatorname{sd}$	$\overline{\mathbf{N}}$
1-9	473.5692	400	368.2375	2333
10-24	627.9651	500	486.1384	1317
25-49	757.0684	650	477.3117	673
50 +	904.1971	750	676.2098	2161
Total	677.8754	520	553.1424	6484

As expected there is a 'size effect'. The workers in bigger firms (50 +), be them formal or informal, on average earn twice as those working in a microenterprise (1-9). Thus, firm characteristics play a major role in the determination of wages fiven the worker profiles. In empirical work one has to control for the firms' profiles.

As the Table 6 clearly demonstrates there large differences in monthly wage earnings among sectors. Finance provides the highest earnings. Health services and educational services, which are dominated by public firms and organizations follow. The highest earning workers are in financial and health sector. These workers on average get twice of the income earned by workers in manufacuring, the largest sector. In manufacturing sector which hosts one-third of the total workers, the average monthly wage was 627.5 TL which corresponds to about 450 \$.

Table 7 give summary of monthy wages according to the occupations. As expected managers, professionals and administrative workers earn the highest. Sales people, craftesmen and unskilled workers all get a monthy wage

Table 6: Monthly Wages according to Sector

Sector	mean	Median	$\operatorname{sd}$	$\overline{\mathbf{N}}$
Agriculture	287.9828	250	198.509	291
Mining	875.7681	560	726.0422	69
Manufacturing	627.4527	500	557.5702	1690
Electricity	1190.816	1100	537.3938	38
Construction	581.8878	500	413.6167	686
Trade	564.4638	450	438.5156	869
Hotels, restaurants	522.0506	450	331.3337	316
Transportation, com.	809.6344	600	636.2728	413
Finance	1215.276	1105	789.9054	76
Real Estate	690.5034	500	590.7687	292
Public services	953.6266	920	432.1048	608
Education	940.7483	964	428.94	453
Health	1109.491	890	980.5378	222
Other services	455.8937	360	467.5204	461
Total	677.8754	520	553.1424	6484

lower than the average.

Upper management provides high wages and salaries, about as three times high as the unskilled workers' wages.

Disregarding the differences in workers' abilities and characteristics, the union membership seems to offer a huge wage premium. Overall, union members can obtain more than twice of the non-union workers.

Summary statistics for the variables used in the empirical analysis are provided in table 15 and table 16. Obviously there are salient differences. Average experience of a unionized worker is 13.7 years which is considerably higher than the non-unionized workers, 6.35 years. Unionized workers labor less, 43 hours per month. The non-unionized workers work much longer, 51.1 hours per month. All of the unionized workers are covered by a social security organization. About 40 percent of non-unionized workers are not covered. Only 25 % of the unionized workers are employed in private firms whereas 80% of the non-unionized workers are in private firms. More importantly, 70% of the unionized workers belong to the largest firms (50 +) whereas the majority of the non-unionized workers (60%) are in firms with less than 25 workers. Approximately 34 % of the unionized workers have obtained a two-

Table 7: Monthly Wages according to Occupation

Occupation	mean	Median	$\operatorname{sd}$	$\overline{\mathbf{N}}$
Upper Management	1464.644	1230	1258.175	233
Professionals	1130.467	1000	690.8254	585
Assistants to Pros	942.136	826	696.1062	456
Office and customer services	757.0398	680	415.3223	502
Sales rep	544.8357	450	342.2228	1047
Skilled agricultural	463.8857	450	182.4901	35
Crafts	562.7416	480	401.9447	1482
Machinists, technicians	697.0725	600	416.4675	910
Unskilled	428.1533	400	276.0309	1233
Total	677.9491	520	553.1532	6483

Table 8: Monthly Wages according to Union Membership, 2006 TL

Union	mean	median	$\operatorname{sd}$	$\mathbf{N}$
Members	1122.013	1050	499.9971	632
Non-members	629.9098	500	537.0724	5852
Total	677.8754	520	553.1424	6484

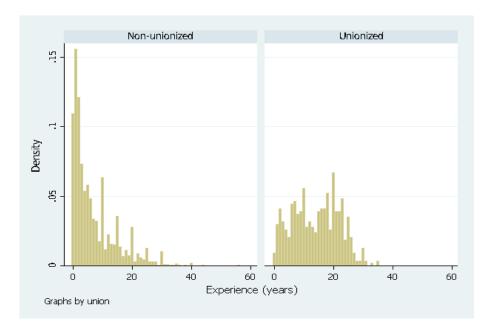


Figure 1: Unionized Workers have more Experience

year university degree or higher. The figure for the non-unionized workers is 21 %.

Therefore, all the worker and firm characteristics except the working hours indicate that unionized workers are more likely to earn higher wages. In order to extract the real effect of unionization on the monthly wage earnings we have to be very careful to control for the abovementioned characteristics.

One of the positive effect of union is the decrease in wage dispersion and hence the inequality of incomes. Indeed, the Gini coefficient for union members turns out to be 0.224, significantly lower than the Gini for non-union workers, 0.368.

# 4 Econometric Analysis

We have two types of workers; unionized workers and non-unionized workers. For each type there can be two different models to estimate by OLS depending on the union status, D. If a worker belongs to a union then, D=1 and if she does not D=0.

We can proceed to estimate

$$Y_0 = \beta_0 X + \epsilon_0 \tag{1}$$

for the subsample of workers who do not belong to a union.

$$Y_1 = \beta_1 X + \epsilon_1 \tag{2}$$

#### 4.1 OLS Regressions

We divide the whole sample into two groups: non-unionized workers and unionized workers. Then we use multivariate OLS technique to estimate the effects of X variables on lnY, log of monthly wages.

Note that we can observe D=1 only if  $Z\gamma > u$  meaning that unionized workers' choice is not random; union status depends on the benefits of the unions compared to costs.

Note that the difference we have calculated reflects both the difference in terms of observed characteristics, X and the unobserved characteristics,  $\epsilon$ .

$$Y = \beta X + (\beta_1 - \beta_0)DX + \epsilon \tag{3}$$

The union wage premiums are calculated as percentages by using  $100 * [e^{\beta_1 - \beta_0} - 1]$ .

Table 9: Union Wage Premiums for Male Workers Across Firm Size,%

FIRM SIZE	Premium	$\overline{\mathbf{N}}$
All firms	15.9*	5142
1-9	7.78	1830
10-24	4.68	1031
24-49	18.8*	514
25-49	17.11*	1767

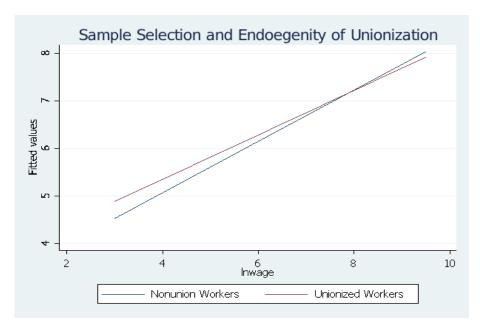
<sup>\*</sup> significant at 1%

However, these OLS regressions suffers from idendification, endogeneity and sample selection problems. Unionized workers are not drawn randonly. There are some unobserved characteristics, ie. political or social connections that may affect the likelihood of being a union-member which could also influence their earnings. Furthermore, the members who had chosen union membership could have observed characteristics that would bring them higher wages even without the union membership, ie. greater experiences or being in a larger public firm.

Table 10: Union Wage Premiums for Male Workers Across Sectors,%

SECTORS	Premium	N
All sectors	16.1*	5142
Manufacturing	26.8*	1356
Non-manufacturing	12	3786
Trade	40**	709
PRIVATE	28.9*	3944
PUBLIC	10.18*	1198

<sup>\*</sup> significant at 1%, \*\* significant at 5%



As the Figure 4.1 demonstrates the influence of unionization is not limited to a mere intercept effect. The unionized workers also have different

slope coefficients on their observable characteristics.

Unless Z and X are independent -which is very unlikely in non-experimental data-,  $\epsilon$ 's and u are not independent. Thus, the error terms  $\epsilon_0$  and  $\epsilon_0$  are correlated with X and the OLS estimators will provide inconsistent estimators of  $\beta_0$  and  $\beta_1$ .

From high school to PhD, educational skills are rewarded more generously in the non-union sector. The difference of the coefficients on vocational or normal four year university graduation (VOCUNIV4) is statistically significant 27 log points. The low skilled segment of the union sector has a larger union premium.

Interestingly firm size does not affect monthly earnings of the unionized workers, however the size matters significantly in non-union sector.

The married workers in the non-union sector has a large premium compared to those in union sector. The difference is 20-15 log points.

The  $R^2$  for the regression of non-union sector, 0.52 is higher than of union sector, 0.41. This suggests that the variation of the monthly earnings depend more on the observable chracteristics in the non-union sector than the union sector.

#### 4.2 Propensity Score Matching

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Let the treatment be the union membership, U, where U=1 indicates that a person has recieved the treatment and U=0 indicates that the person has not recieved the treatment. The potential outcomes are then  $w_1$  and  $w_0$  depending on the treatment status.

We can not find the individual treatment effect since there is no way to observe the potential outcome of a person who has a treatment as if she had no treatment (counterfactual case). However we can measure the ATT (average treatment effect) on those who received treatment compared to what they would experience without treatment albeit with a great deal of bias.

 $<sup>^2{\</sup>rm The}$  propensity score matchning is carried out along the standard procedures for the commmand psmatch2 in Stata 10

Table 11: Separate OLS Regression: Inwage

 Variable	Union	Non-Union
Experience	0.033*	0.024***
r	(2.56)	(5.79)
Experience Squared	-0.001*	-0.000*
1	(-2.01)	(-2.43)
Weekly Working Hours	0.000	0.006***
, o	(0.00)	(9.86)
Covered by Social Security	$0.367^{'}$	0.268***
v	(1.18)	(13.22)
Private	$0.179^{'}$	-0.186***
	(0.74)	(-5.47)
Married	-0.057	0.194***
	(-0.66)	(7.81)
FSIZE2	0.065	0.058**
	(0.77)	(2.60)
FSIZE3	$\stackrel{\circ}{0}.137^{'}$	0.122***
	(1.65)	(4.65)
FSIZE4	$0.150^{'}$	0.154***
	(1.94)	(6.51)
ILL	$0.000^{'}$	-0.208***
	(.)	(-3.81)
LITnoSC	0.000	-0.256***
	(.)	(-4.01)
PRIMARY	0.067	-0.154*
	(0.57)	(-2.56)
INTERMED	-0.022	0.054*
	(-0.40)	(2.38)
HIGH	0.058	0.128***
	(1.04)	(5.62)
VOCHIGH	$0.089^{'}$	0.121***
	(1.54)	(4.55)
VOCUNIV2	0.185**	0.306***
	(2.65)	(7.74)
VOCUNIV4	0.298***	0.572***
	(4.17)	(12.77)
MAPHD	0.933***	1.023***
	(4.44)	(9.08)
Industry Dummies	YES	YES
Occupation Dummies	YES	YES
Age Dummies	YES	YES
Constant	5.374***	5.372***
	(11.08)	(83.22)
R-square	0.415	0.522
N	537.000	4605.000
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<sup>\*\*\* 1%, \*\* 5%, \* 10%</sup> significance

$$ATT = E(w_1 - w_0 | U = 1, X) \tag{4}$$

 $E(w_1|U=1,X)$  is observable from the observational data. Nevertheless  $E(w_0|U=1,X)$  is unobservable and there is a missing counterfactual problem for the averages. Utilizing observed sample means to construct the counterfactual can lead to biases,

$$Bias = [E(w|U=1,X) - E(w|U=0,X)] - [E((w_1 - w_0)|U=1,X)]$$
 (5)

$$= E(w_0)|U = 1, X) - E(w_0)|U = 0, X)$$
(6)

Heckman et. al. (1998) [5] divide the bias for ATT into three subcomponents:

$$E(w_0)|U=1,X) - E(w_0)|U=0,X) = B_1 + B_2 + B_3$$
 (7)

where  $B_1$  is the bias due to lack of sufficient overlap in the two groups (densities of common characteristics),  $B_2$  is the bias due to differences in the distribution of observational characteristics Xs under the common support region and finally  $B_3$  is the bias due to unobservables. This bias arises if the treatment is correlated with the unobserved characteristics.

The matching procedure tries to solve for the counterfactual problem by selecting a control group from the nontreated group such that the selected control group is as similar as possible to the treatment group based on observavle covariates. The Conditional Independence Assumption (CIA) is a necessary presumption which states that the outcome in the selected control group is independent of the treatment conditional on a set of covariates, X.

$$w_0 \perp U|X$$

A potential difficulty with matching is the high dimensionability of characteristics. As the number of covariates increase the probability of matching the treatment group and the selected control group becomes lower and lower. Rosenbaum and Rubin (1983) [8] propose to solve this dimensionability problem by using propensity score as a matching criteria.

$$p(X) = Pr(U = 1|X)$$
 for  $X \in S$ 

Treated and nontreated observations in the selected control group with the same (or very close) value of propensity scores have the same distribution of the observed covariates X and satisfy the balancing argument. Matching is a powerful technique in the sense that it can potentially overcome the first sources of bias by avoiding the need to define a specific functional form for the outcome equation and by avoiding extrapolation beyond the common support.

Table 12: Propensity Score Matching Estimates

Sample	Treated	Controls	Difference	S.E.	T-stat
ATT	6.96	6.82	0.139	0.037	3.73
ATU	6.29	6.50	0.212		
ATE			0.204		

We find that OLS regression estimation of union wage premium for workers as 0.16 log points. Whereas for propensity score matching techniques average premium for the already unionized workers (ATT) turns out to be 0.14. The premium for the whole sample (ATE) is estimated as 0.20 log points. More importantly, the average union premium for the non-unionized workers is 0.21, significantly greater than the OLS estimate.

Next we restrict our analysis only to private sector. A priory we expect that the union wage premium in private sector would be greater than in public sector. Ordinary least square estimations confirm our expectations. Raw estimations indicate an overal 0.24 wage premium in private sector compared to only 0.9 in public sector. Propensity score matching results demonstrated in Table 13 show that for the treated group the average premium (ATT) is about 0.16 in the private sector but only 0.06 in the public sector (see 14).

Table 13: Propensity Score Matching Estimates, Private Sector

Sample	Treated	Controls	Difference	S.E.	T-stat
ATT	6.73	6.57	0.16	2.14	
ATU	6.14	6.38	0.24		
ATE			0.237		

We have also applied propensity score matching to public sector. We find a smaller influence of unionization on wages.

Table 14: Propensity Score Matching Estimates, Public Sector

Sample	Treated	Controls	Difference	S.E.	T-stat
ATT	7.00	6.94	0.06	0.025	2.25
ATU	6.78	6.928	0.145		
ATE			0.118		

## 5 Conclusion

We have examined the union wage premium in Turkey by employing OLS and propensity score techniques using Household Budget Survey (2006). We find that controlling for many important determinants of net monthly wages there still exist a union wage premium both in public and private sectors; however these premiums are much smaller than the often cited 50 to 100 percent differences.

The propensity score techniques could let us at least partially overcome the selection and endogeneity problems. However, we still note that the robustness of findings should be limited by the quality of the data. The next step will be to apply the similar analysis to a different survey, namely Structure of Earnings Survey (2006) in order to see whether our findings are confirmed or not.

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Table 15: Summary statistics for Unionized Workers

Variable	Mean	Std. Dev.
lnwage	6.934	0.433
sure_yil	13.684	7.852
calsur	43.089	8.678
male	0.85	0.358
security	0.991	0.097
private	0.259	0.439
YAS17	0.005	0.069
YAS22	0.032	0.175
YAS27	0.103	0.304
YAS32	0.149	0.356
YAS37	0.185	0.389
YAS42	0.275	0.447
YAS47	0.168	0.374
YAS52	0.059	0.235
YAS57	0.016	0.125
YAS62	0.008	0.089
YAS67	0.002	0.04
ILL	0	0
LITnoSC	0.002	0.04
PRIMARY	0.201	0.401
ILKOGR	0.201	0.401
INTERMED	0.108	0.31
VOCINTER	0.002	0.04
HIGH	0.136	0.343
VOCHIGH	0.206	0.405
VOCUNIV2	0.101	0.302
VOCUNIV4	0.229	0.421
MAPHD	0.014	0.119
single	0.063	0.244
married	0.919	0.273
COED	0	0
PDEAD	0.006	0.079
DIVORCED	0.009	0.097
SEPARATE	0.002	0.04
AGR	0.002	0.04
MINING	0.002	0.171
MANUF	0.248	0.432
ELEC	0.027	0.162
CONSTR	0.028	0.166
TRADE	0.019	0.137
REST	0.008	0.089
TRANS	0.059	0.235
FINANCE	0.009	0.097
REALEST	0.013	0.112
PUBSERV	0.256	0.437
EDUC	0.188	0.391
HEALTH	0.073	0.26
OTHERSERV	0.073	0.195
FSIZE1	0.059	0.195
FSIZE2	0.119	0.324
FSIZE3	0.12	0.326
FSIZE4	0.703	0.458
SOLE	0.008	0.089
PARTNERS	0	0
COLLECTIVE	0.002	0.04
COMMANDIT	0	0
LIMITED	0.021	0.142
JOINTSTOCK	0.22	0.415
OTHERFIRM	0.005	0.069
FULLTIME	0.992	0.089
N	0.002	632

Table 16: Summary statistics for Non-unionized Workers

111017 2000120	100 101	
Variable	Mean	Std. Dev.
lnwage	6.194	0.759
sure_yil	6.532	7.291
calsur	51.151	15.406
male	0.791	0.406
security	0.578	0.494
private	0.821	0.383
YAS17	0.079	0.269
YAS22	0.132	0.338
YAS27	0.174	0.379
YAS32	0.156	0.363
YAS37	0.142	0.349
YAS42	0.134	0.34
YAS47	0.089	0.285
YAS52	0.051	0.22
YAS57	0.021	0.144
YAS62	0.01	0.102
YAS67	0.006	0.078
ILL	0.025	0.156
LITnoSC	0.035	0.184
PRIMARY	0.395	0.489
ILKOGR	0.051	0.221
INTERMED	0.099	0.299
VOCINTER	0.002	0.045
HIGH	0.168	0.374
VOCHIGH	0.085	0.278
VOCUNIV2	0.044	0.205
VOCUNIV4	0.089	0.284
MAPHD	0.007	0.085
single	0.269	0.444
married	0.709	0.454
COED	0	0.019
PDEAD	0.008	0.088
DIVORCED	0.011	0.103
SEPARATE	0.003	0.056
AGR	0.049	0.217
MINING	0.009	0.092
MANUF	0.262	0.44
ELEC	0.004	0.06
CONSTR	0.115	0.319
TRADE	0.146	0.353
REST	0.053	0.224
TRANS	0.065	0.246
FINANCE	0.012	0.109
REALEST	0.049	0.215
PUBSERV	0.077	0.266
EDUC	0.057	0.231
HEALTH	0.03	0.171
OTHERSERV	0.074	0.262
FSIZE1	0.392	0.488
FSIZE2	0.212	0.409
FSIZE3	0.102	0.303
FSIZE4	0.294	0.456
SOLE	0.415	0.493
PARTNERS	0.028	0.165
COLLECTIVE	0.003	0.052
COMMANDIT	0.001	0.029
LIMITED	0.192	0.394
JOINTSTOCK	0.142	0.349
OTHERFIRM	0.029	0.168
FULLTIME	0.815	0.389
N		5819