Wage and Productivity Differentials in Private and Public Manufacturing: The Case of Turkey**

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1. Introduction

The goal of this paper is to study the differences in wages and labor productivity in private and public manufacturing sub-sectors, and to determine the relationship, if any, between wages and productivity.

The major hypothesis is on the importance of the role of ownership in wage determination. A close relationship between wages and productivity is expected in the private sector; while a relatively weaker or no relationship is assumed to exist in the public sector. An earlier study using five hundred largest industrial firms in Turkey and covering the 1980-1995 period shows a high correlation between wages an productivity in the private sector and no relationship in the public sector (Ozmucur, 1997). The present study extends the study by covering a longer period (1950-1998), and by increasing the number of sectors and firms.

The paper is organized as follows: Levels and trends in wage rates and labor productivity in public and private manufacturing sub-sectors are given in the next section. A simple model was estimated, and empirical results of the model are studied in Section 3. Major conclusions are stated in the final section.

2. Wage Rate and Labor Productivity in Manufacturing

This section is devoted to a comparison of levels and trends in wage rate and labor productivity in private and public manufacturing sub-sectors.

There are significant differences among averages and standard deviations of log of wages in manufacturing sub-sectors (Table 1). This necessitates working with sub-sectors, where available, rather than the manufacturing as a whole. Average wage in the public sector is higher than the one in the private sector. This is the case for the manufacturing sub-sectors and the sector as a whole. Tests regarding the equality of private and public wages are rejected at the one percent level of significance. Standard deviations are generally higher in the public sector. The sectors where standard deviation of log of wages are significantly higher in public establishments are textiles, wood, paper and machinery sectors.

There are also significant differences among averages and standard deviations of log of labor productivity figures in manufacturing sub-sectors (Table 1). This is an expected result and can be explained by differences in capital structures. With the exception of the food (31) and chemicals (35) sectors, labor productivity is higher in the private sector. These two sectors include relatively capital intensive sub-sectors where state is the major producer. Food sector (31) includes alcoholic beverages (314) where "State Monopoly" is among the largest firms in Turkey, and chemicals sector (35) includes oil refineries (353), where state is the major player. The differences are not significant in three out of nine, namely wood, non-metallic, and basic metal, sectors. Labor productivity shows larger variation in the private sector. In the food, textile, non-metallic and basic metal sectors standard deviation of log of labor productivity is higher in private sector.

In addition to averages, it may be helpful to study trends in wages and labor productivity (Table 2). A logarithmic trend line is used to estimate average growth rates in labor productivity, real wage rate, real value added, and employment, i.e. $Log(X_t)= \beta_0+ \beta_1 t +u_t$, where X is the variable of interest like labor productivity, u is the random disturbance term, t is time or year. Least squares estimate of β_1 is used as the average growth rate.

During the 1950-1998 period, average annual growth in labor productivity in private manufacturing was 5.63 percent. The corresponding figure for the public sector was 5.15 percent. During the same period, real wage rate in public establishments realized a higher average annual growth rate of 2.81 percent compared to a 2.42 percent in private establishments. Average growth in labor productivity in private sector was higher in food, textile, wood, non-metallic, basic metal and machinery sectors. The output elasticity of employment figures, calculated as the ratio of the average growth rate of employment to the average growth of value added, are very similar to the ones reported by Karshenas (1997).

Unit root tests of stationarity reveal that logarithm of all variables are integrated of order one-I(1) and first differences are I(0)-stationary (not given here). Augmented Dickey-Fuller tests with a constant and a trend component with 2 lags were used in these tests, i.e. $\Delta Log(X_t)=\beta Log(X_{t-1})+\alpha_0+\alpha_1 t + \delta_1 \Delta Log(X_{t-1}) +\delta_2 \Delta Log(X_{t-2}) +u_t$. In these test the Dickey-Fuller t statistics of the estimate of β is compared with the MacKinnon critical values as produced by Eviews program.

3. A Simple Model of Wages and Productivity

3.1. Basic Features of the Model

The model has two important features: i. It relies on a simple labor market clearing model, built for the manufacturing sector and not for the economy as a whole, and ii. It is based on the assumption of the existence of a relationship between wage rate and the long-run or equilibrium labor productivity.

These points are given in detail below:

(i) The empirical relationship between wage rate and labor productivity is based on a simple labor market model (Bulutay, 1995). In this model, labor demand is a function of productivity and prices of factors of production, and labor supply is a function of labor force, wage rate, and possibly labor demand to account for discouraged workers (CEU, 1993). The model with two factors, namely labor and capital can be written as the following:

$L_d = f_d(w, r, P_l, P_k)$
$L_s = f_s(w, F)$

With expected signs,
$\delta L_d/\delta w < 0$, $\delta L_d/\delta r > 0$, $\delta L_d/\delta P_l > 0$, $\delta L_d/\delta P_k < 0$
$\delta L_s/\delta w > 0$, $\delta L_s/\delta F > 0$

where,
- L_d - demand for labor
- L_s - supply of labor
- w - wage rate
- r – interest rate
- P_l - labor productivity
- P_k -capital productivity
- F - labor force

Using the market clearing condition, the model can be written as a wage equation:
$f_s(w, F)=f_d(w, r, P_l, P_k)$

and
$w=f_w (P_l, P_k, r, F)$

with partials,
$\delta w/\delta P_l > 0$, $\delta w/\delta P_k < 0$, $\delta w/\delta F < 0$, $\delta w/\delta r > 0$

In this model, other things being constant, wage rate is positively related to labor productivity, and the rate of interest (or price of capital), and inversely related to capital productivity and labor force.

The empirical model used is a slightly modified version of this simple theoretical model. The reasons for these modifications are as follows:

1. Capital stock data are not readily available. It is always possible to get some estimates of them using a common method like the perpetual inventory method. However, there are well-known problems which we do not intend to discuss here, with that method.
2. Since the period covered includes a large number of years (the period of 1950-1981) where interest rates were not freely determined in the market, it is not appropriate to use the rate of interest. One may choose to use a proxy like expected rate of inflation, or income velocity of circulation, but with additional problems of interpretation.
3. The data on ownership, for a long period of time, are available for the manufacturing sector, only. Therefore, the model deals with manufacturing but not with the economy as a whole.

$L_d = f_d(w, r, P_l, P_k)$
$L_s = f_s(w, F)$

$L_{dt} = L_d + L_{do}$
$L_{st} = L_s + L_{so}$

where, subscripts "t" refers to total, and "o" refers to other.

In order to take the effects of other sectors into consideration, a macro variable like GNP/capita can be used as a proxy. Other alternatives, are "time", share of total wages in national income, or unemployment rate.

(ii) the relationship between wage rate and long-run labor productivity
$W_t = \beta_0 + \beta_1 P^*_t + u_t$, u is the random disturbance term.

W – natural logarithm of real wage rate, t-time (year),
P^* - natural logarithm of equilibrium (optimum, expected long-run or normal) labor productivity

The unobserved variable P^* - is formed using adaptive expectations or error learning process.

$P^*_t - P^*_{t-1} = \lambda (P_t - P^*_{t-1}),\ 0< \lambda \leq 1$

It is assumed that economic agents learn from their mistakes, and adapt their expectations based on experience. The greater the reliance of current expectations on the more recent past, the larger λ; small values of λ imply a long memory, larger values a shorter recall. (can be viewed as error correction mechanism).

Lagging the first equation by one period and multiply it with $(1-\lambda)$ and subtracting it from the original equation will lead to the following estimable equation:
$W_t = \lambda \beta_0 + \lambda \beta_1 P_t + (1-\lambda) W_{t-1} + v_t$

where $v_t = [u_t - (1-\lambda) u_{t-1}]$

The model is similar to the ones built by Lucas & Rapping (1970) and Commission of the European Union (1993) among others. The model is relatively simple, but with added estimation problems due to a lagged dependent variable and a moving average of disturbances.

3.2. Data

Data are obtained from State Institute of Statistics (SIS). 1950-1996 annual data are readily available. 1997 and 1998 are estimated by us, using quarterly survey results of wages, prices and production indices in manufacturing.

There are nine two-digit manufacturing sub-sectors:

31 food, beverages and tobacco
32 textile, wearing apparel and leather
33 wood and wood products
34 paper products and printing and publishing
35 chemicals, petroleum, coal, rubber and plastic products
36 non-metallic mineral products except products of petroleum and coal
37 basic metal industries
38 metal products, machinery and equipment
39 other manufacturing
3 manufacturing

Wholesale price index numbers for these sub-sectors, both for public and private, have been calculated by SIS since 1981. 1950-1976 are obtained from

Ozotun (1979). Treasury wholesale price index numbers are used for the 1977-1981 period. Value added data are deflated by these price index numbers.

Wage rate in manufacturing data are deflated by the consumer price index numbers.

3.3. Estimation and Validation

The 18-equation empirical model to be estimated is of the following form:

$$W_{it} = \mu_i + \beta_i P_{it} + \alpha_i W_{i,t-1} + \delta_i L_t + \theta_i Y_t + u_{it}$$

with 20 instruments (L, Y, and 18 $W_{i,t-1}$)
where, W- log of real wage rate (wage rate in 1987 prices)
P – log of real labor productivity (value added in 1987 prices/employment)
L – log of labor force
Y – log of GNP per capita (GNP per capita in 1987 prices)
i – manufacturing sub-sector (g31,g32,.. g39, p31, p32,..p39)
t – year (1951, 1952,..1998)

In this equation, β_i 's give the effect of labor productivity on the real wage rate in the short-run. The long run effect can be calculated as: $\beta_i /(1- \alpha_i)$.

There are several estimation issues to be dealt with: 1. The model contains a lagged dependent variable, 2. Nine private and public manufacturing sub-sectors form a dynamic panel leading to non-zero correlations between the explanatory variables and disturbances (Balgati, 1995, Hsiao, 1986) 3. There is also simultaneity between productivity and wages. All these require the use of 3SLS originally developed by Zellner & Theil (1962). Iterative weighted three-stage least squares is an appropriate method if disturbances from different equations are contemporaneously correlated and heteroscedastic. These estimators are consistent and asymptotically efficient. Furthermore, for normally distributed disturbances 3SLS has the same asymptotic distribution as the full-information maximum likelihood estimator, which is asymptotically efficient among all estimators (Greene, 1999). Eviews 3.1 statistical package by Quantitative Micro Software is used in calculations.

3SLS estimates are given in Table 3. In addition to coefficients, standard errors of coefficients, standard error of estimate, Durbin-Watson statistics for testing first order serial correlation, and determination coefficient (R^2) are also given.

Since the determination coefficient does not have the same interpretation as the one given in a single equation model, mean absolute percentage error (MAPE) and root mean square percentage error (RMSPE) figures which are based on 3SLS residuals are also given. MAPE and RMSPE are better indicators of "goodness of fit" in a simultaneous equation setting.
$MAPE_i = (1/T)\ \Sigma\ |(A_{it}-S_{it})/A_{it}*100|$, and $RMSPE_i = \sqrt{(1/T)\ \Sigma\ [(A_{it}-S_{it})/A_{it}*100]^2}$, where, i=1,2..38, t=1,2,..T (where T =48, period 1951-1998), A – actual, S- predicted.

These results indicate a lower percentage errors for the private sector equations. The range of absolute percentage errors are from 7.9 and 14.2 in private, and 11.4 to 34.0 in public sectors. The explanatory power of the model is higher in the private sector, with a percentage error of about ten percent.

3.4. Evaluation of Results

With the exception of food, and basic metal sectors, coefficients associated with labor productivity are positive and significant in the private sector (Table 3). The coefficients range from 0.063 in the non-metallic to 0.343 in the other sector.

Coefficients associated with the lagged wage rate are all significant at the one percent level. These coefficients range from 0.251 in paper and other to 0.576 in basic metal industries. There is more reliance on current real wage rates in the paper sector compared to other sectors.

Both GNP per capita and labor force variables are significant and have expected signs in all sectors except paper. The elasticity associated with GNP per capita is around one (0.85 in textile, and 1.264 in non-metallic); the elasticity associated with labor force is in general less than one in absolute value (-0.378 in chemicals, -1.076 in other manufacturing).

All in all, the private sector equations are quite satisfactory with an explanatory power of ninety percent, and most of the coefficients with correct signs.

A completely different picture is observed in the public sector. Only three of the nine coefficients associated with labor productivity are significant in the public sector. Two of these (paper, and basic metal) have wrong signs (-0.301, and – 0.085). Only non-metallic sector has a positive and significant labor productivity coefficient (0.134).

As in the private sector, all the coefficients associated with lagged values of wage rate are significant at the one percent level. These coefficients range from 0.41 in non-metallic to 0.731 in paper sectors.

Coefficients associated with labor force are insignificant in seven sectors. They are significant in chemicals and other sectors.

With the exception of textile and basic metal industries, coefficients associated with GNP per capita are significant and positive. Their size range from 0.843 in non-metallic to 1.449 in other.

In public sector wage determination, almost all the explanatory power come from the lagged wage rate and GNP per capita. There is no relation with the productivity.

Similar results are obtained if the long-run elasticities are calculated (Table 4). In the private sector, all but textiles and basic metal are statistically different from zero. They range from 0.087 in non-metallic to 0.458 in other sector. In the public sector, there are three sector where coefficients are significant, of which two with wrong signs.

It may be difficult to see differences in coefficients, unless certain tests are conducted. Wald tests are used to test the equality of parameters associated with explanatory variables (Table 5).

As a group (nine sectors) productivity, GNP per capita and labor force variables are significant at the one percent level, both in public and private sectors. As a group they are different from zero, may have the wrong sign as in the public sector.

Parameters associated with labor productivity in the short-run, labor productivity in the long-run, GNP per capita and labor force are statistically different in the public manufacturing sub-sectors. Labor productivity coefficients are different in private manufacturing sub-sectors, but both GNP per capita and labor force are not statistically different. These results indicate that general economic situation as captured by GNP per capita has the same effect on private sub-sectors.

All the coefficients as a group (nine sectors) are different in private and public sectors. Short-run labor productivity coefficient are not significantly different in food, textile, and non-metallic sectors. The effect of GNP per capita on private and public establishments in food, wood, chemicals, and other sectors are not very different. There are four sectors (textile, wood, basic metal, machinery) where labor force coefficients are different in private and public sectors.

These results clearly indicate the differences between public and private establishments.

4. Conclusion

Labor productivity is higher in private sector. On the other hand, average wage rate in the public sector is higher compared to private sector. A simple model is used to test the importance of ownership in wage determination. Turkish manufacturing survey results for the period 1950-1998 are used to study this relationship. There is a very close relationship between wages and productivity in the private sector. There is no significant relationship between the real wage rate and labor productivity in the public sector.

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Table 1. Mean and Standard Deviation of Real Wage Rate and Labor Productivity,1950-1998

	log of real wage rate		log of labor productivity	
private	Mean	Std. Dev.	Mean	Std. Dev.
31 food	0.580	0.444	1.646	0.906
32 textile	0.634	0.235	1.743	0.620
33 wood	0.562	0.238	1.843	0.577
34 paper	1.065	0.215	2.846	0.453
35 chemicals	1.120	0.476	2.998	0.584
36 non-metallic	0.871	0.379	2.292	0.705
37 basic metal	1.025	0.375	2.377	0.725
38 machinery	1.027	0.303	2.162	0.754
39 other	0.631	0.272	1.836	0.420
3 manufacturing	0.835	0.400	2.194	0.793
Equality among sub-sectors	22.5 *	63.2 *	26.2 *	42.7 *
public	Mean	Std. Dev.	Mean	Std. Dev.
31 food	0.952	0.433	2.035	0.523
32 textile	0.984	0.326	1.481	0.409
33 wood	0.827	0.452	1.831	0.460
34 paper	1.287	0.574	1.849	0.515
35 chemicals	1.371	0.453	3.604	1.283
36 non-metallic	1.070	0.394	2.177	0.381
37 basic metal	1.407	0.444	2.230	0.562
38 machinery	1.201	0.392	1.471	0.733
39 other	1.050	0.305	1.291	0.512
3 manufacturing	1.128	0.462	1.997	0.914
Equality among sub-sectors	10.6 *	26.3 *	53.1 *	130.7 *
F-tests for equality among public and private	Mean	Std. Dev.	Mean	Std. Dev.
31 food	17.3 *	1.1	6.7 *	3.0 *
32 textile	36.4 *	1.9 **	6.0 *	2.3 *
33 wood	12.9 *	3.6 *	0.0	1.6
34 paper	6.3 *	7.1 *	101.6 *	1.3
35 chemicals	7.1 *	1.1	8.9 *	4.8 *
36 non-metallic	6.4 *	1.1	1.0	3.4 *
37 basic metal	20.8 *	1.4	1.2	1.7 ***
38 machinery	5.9 *	1.7 ***	20.7 *	1.1
39 other	50.5 *	1.3	32.5 *	1.5
3 manufacturing	16.5 *	1.4	0.3	1.2

(*) significant at the 1% level. (**) significant at the 5% level, (***) significant at the 10% level
Note: Tests are based on F statistics, with the exception of tests regarding variances of groups of series where Bartlett statistics are used.

Table 2. Percentage Growth rates in Turkish manufacturing Sub-sectors, 1950-1998

public	labor productivity (%)	real wage rate (%)	value added (%)	labor (%)
31 food	3.31	2.68	5.45	2.15
32 textile	2.62	2.07	2.22	-0.40
33 wood	2.40	2.76	3.97	1.58
34 paper	2.98	3.25	5.66	2.68
35 chemicals	8.26	2.76	14.30	6.04
36 non-metallic	1.95	2.49	5.86	3.91
37 basic metal	3.11	2.80	7.53	4.42
38 machinery	4.79	2.43	5.59	0.80
39 other	3.13	1.16	6.18	4.11
3 manufacturing	5.17	2.81	7.20	2.03
private				
31 food	6.26	2.94	8.89	2.63
32 textile	4.36	1.33	8.89	4.53
33 wood	3.50	1.04	8.46	4.96
34 paper	1.98	1.24	7.50	5.52
35 chemicals	3.84	3.21	8.30	4.45
36 non-metallic	4.79	2.49	9.85	5.06
37 basic metal	4.65	2.16	14.52	9.87
38 machinery	4.97	1.97	14.08	9.11
39 other	2.08	0.33	6.25	4.17
3 manufacturing	5.63	2.42	10.48	4.85
total				
31 food	4.65	2.76	7.08	2.43
32 textile	4.11	1.15	7.71	3.60
33 wood	3.39	1.47	7.42	4.03
34 paper	3.59	2.14	7.80	4.21
35 chemicals	6.44	3.19	11.18	4.74
36 non-metallic	4.42	2.46	9.31	4.89
37 basic metal	3.67	2.25	9.56	5.89
38 machinery	5.86	1.80	11.58	5.72
39 other	2.46	0.45	6.66	4.21
3 manufacturing	4.81	2.29	8.81	4.00

Notes: 1. The results are based on regressions of the log of the variable on year, 2. All coefficients are significant at the one percent level.

Table 3. A Simple Model of real Wages and Labor Productivity, 1951-1998

Private sector

	constant	productivity	lagged wage	labor force	GNP/capita	R2	SEE	DW	MAPE/ RMSPE
31 food	-1.427	0.070	0.490 *	-0.709 *	1.262 *	0.94	0.115	1.84	9.9
	1.621	0.071	0.064	0.296	0.294				13.1
32 textile	1.988 *	0.162 *	0.486 *	-0.778 *	0.850 *	0.85	0.094	2.03	7.9
	0.940	0.068	0.065	0.202	0.266				9.4
33 wood	2.413 *	0.186 *	0.402 *	-1.049 *	1.174 *	0.71	0.135	1.88	11.7
	0.799	0.038	0.069	0.281	0.337				14.0
34 paper	-0.890	0.103 **	0.251 *	-0.193	0.480	0.70	0.122	1.22	10.8
	0.685	0.053	0.083	0.289	0.358				13.3
35 chemicals	-3.091 *	0.115 *	0.419 *	-0.378 ***	1.039 *	0.96	0.103	1.06	10.1
	0.675	0.042	0.053	0.215	0.281				13.3
36 non-metallic	-3.000 *	0.063 ***	0.281 *	-0.525 *	1.264 *	0.93	0.104	0.74	8.6
	0.810	0.035	0.049	0.213	0.254				12.0
37 basic metal	-0.297	0.040	0.576 *	-0.773 *	1.215 *	0.92	0.109	1.62	10.0
	0.734	0.029	0.049	0.228	0.276				12.8
38 machinery	-0.388	0.087 *	0.403 *	-0.598 *	0.985 *	0.91	0.097	1.23	9.3
	0.685	0.024	0.047	0.204	0.237				11.5
39 other	3.289 *	0.343 *	0.251 *	-1.076 *	1.066 **	0.51	0.200	2.04	14.2
	1.146	0.070	0.063	0.413	0.474				26.5

Public sector

	constant	productivity	lagged wage	labor force	GNP/capita	R2	SEE	DW	MAPE/ RMSPE
31 food	-2.892 *	0.013	0.498 *	-0.316	0.941 *	0.89	0.147	1.13	14.3
	1.039	0.042	0.052	0.303	0.351				22.6
32 textile	-2.354 *	0.061	0.552 *	0.220	0.071	0.89	0.112	1.29	11.4
	0.740	0.071	0.062	0.228	0.280				16.9

33 wood	-3.253 *	-0.029	0.557 *	-0.125	0.712 ***	0.90	0.153	1.20	16.9
	0.903	0.048	0.048	0.321	0.394				24.6
34 paper	-4.162 *	-0.301 *	0.731 *	-0.461	1.402 **	0.84	0.236	1.36	34.0
	1.456	0.110	0.071	0.499	0.637				52.4
35 chemicals	-1.629 *	0.030	0.534 *	-0.507 ***	1.047 *	0.90	0.147	1.48	15.3
	0.918	0.023	0.056	0.303	0.387				20.0
36 non-metallic	-2.724 *	0.134 *	0.410 *	-0.276	0.843 *	0.88	0.140	1.49	12.8
	0.901	0.045	0.070	0.286	0.341				17.2
37 basic metal	-5.174 *	-0.085 *	0.430 *	0.211	0.582	0.88	0.164	1.02	15.8
	1.002	0.028	0.058	0.333	0.389				24.2
38 machinery	-3.134 *	-0.072	0.638 *	-0.006	0.539 ***	0.88	0.135	1.42	15.3
	1.102	0.050	0.058	0.290	0.319				21.2
39 other	-0.685	-0.087	0.507 *	-0.868 *	1.449 *	0.76	0.156	1.53	16.5
	0.950	0.070	0.081	0.329	0.403				20.7

Note: Standard errors are given under regression coefficients. Results are based on iterative three stage least squares (I3SLS) using Eviews 3.1.

Table 4. Short-run and Long-run elasticities in Private and Public Manufacturing Sub-sectors

Private	productivity	lagged wage	long-run productivity
31 food	0.070	0.490 *	0.137
32 textile	0.162 *	0.486 *	0.315 *
33 wood	0.186 *	0.402 *	0.312 *
34 paper	0.103 **	0.251 *	0.137 **
35 chemicals	0.115 *	0.419 *	0.197 *
36 non-metallic	0.063 ***	0.281 *	0.087 **
37 basic metal	0.040	0.576 *	0.095
38 machinery	0.087 *	0.403 *	0.146 *
39 other	0.343 *	0.251 *	0.458 *

Public	productivity	lagged wage	long-run productivity
31 food	0.013	0.498 *	0.027
32 textile	0.061	0.552 *	0.136
33 wood	-0.029	0.557 *	-0.066
34 paper	-0.301 *	0.731 *	-1.120 **
35 chemicals	0.030	0.534 *	0.065
36 non-metallic	0.134 *	0.410 *	0.227 *
37 basic metal	-0.085 *	0.430 *	-0.150 *
38 machinery	-0.072	0.638 *	-0.198
39 other	-0.087	0.507 *	-0.177

Table 5. Wald Tests on Equality of Parameters

	productivity (short-term)	productivity (long-term)	GNP per capita	labor force
equality of private and public sector parameters				
31 food	0.5	0.5	0.9	1.4
32 textile	1.2	0.8	6.8 *	19.8 *
33 wood	13.0 *	8.9 *	1.2	7.1 *
34 paper	10.9 *	5.8 *	2.3 ****	0.3
35 chemicals	3.2 ***	2.5 ****	0.0	0.3
36 non-metallic	1.4	2.3 ****	2.9 ***	1.5
37 basic metal	10.0 *	8.5 *	2.7 ***	9.1 *
38 machinery	6.2 *	4.1 **	2.1 ****	4.1 **
39 other	17.8 *	11.4 *	0.3	0.1
as a group	69.1 *	50.2 *	14.4 ***	28.3 *
equality among manufacturing sub-sectors				
private	29.33 *	21.47 *	9.9	10.2
public	34.12 *	29.64 *	19.5 *	26.8 *
significance of group of parameters				
private	72.2 *	65.3 *	33.3 *	22.8 *
public	34.1 *	29.98 *	29.2 *	30.7 *

Note: χ^2 values for Wald tests are reported in the table.
(*) significant at the 1% level. (**) significant at the 5% level, (***) significant at the 10% level, (****) significant at the 15% level.