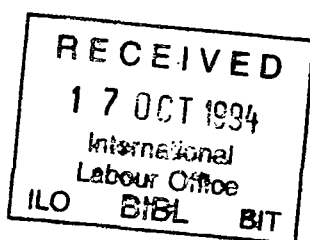


# **Wages and Benefits in Russian Industry: Chaotic or Evolving Labour Market?**

by

**Tatyana Chetvernina and Guy Standing\***



Notes: \*Respectively, Director of Centre for Labour Research, Moscow, and Director, ILO Central and Eastern European Team. This is a draft; comments would be welcome. All views and conclusions are those of the authors only and should not be attributed to the ILO. Thanks are due to Tatyana Gorbachova and Zineida Ryzhinaioda (Goskomstat, RF), Pavel Smirnov (Centre for Labour Research) and László Zsoldos.

Budapest and Moscow  
1994



40113

## Table of Contents

1. Introduction.....	1
2. Labour Costs.....	1
3. Wages and Earnings in 1993.....	5
4. Occupational Wages.....	11
5. Occupational Wage Differentials.....	18
6. Difficulty in the Payment of Wages.....	20
7. Low Pay within Industry.....	23
8. Wage Flexibility.....	26
9. Entitlement to Enterprise Benefits.....	29
10. Unions, Collective Agreements and Wages.....	37
11. Concluding Remarks.....	39

# **Wages and Benefits in Russian Industry: Chaotic or Evolving Labour Market?**

## **1. Introduction**

For many decades, wages in Russian industry were very low, and there was also a popular view that wage differentials were narrow due to the ideology of 'levelling' and the effect of centralised direction of the wage 'tariff' scale. The average wage was close to the minimum wage, and most differentiation took place via the privileged access to social insurance (work-experience based) and other forms of enterprise-based benefits. Since the late 1980s, a great deal has changed.

This paper examines the pattern of wages, earnings and benefits in Russian industry in 1993 through analysis of data from the third round of the Russian Labour Flexibility Survey (RLFS3), a representative survey of 340 manufacturing establishments in four major industrial areas of Russia — Moscow City, Moscow Region, St.Petersburg and Nizhny Novgorod. Although not necessarily representative of the whole country, these do represent the largest industrial areas, and the survey is the largest and most detailed of its kind, involving extended interviews with senior management. Fieldwork was carried out in July, 1993, and most of the data relate to the previous year or the month of May, 1993. A summary account of the main findings is provided elsewhere.<sup>1</sup>

A particular concern is the impact on wages and other forms of remuneration of changes in corporate governance associated with so-called 'privatisation' and the means by which managers have been appointed.

## **2. Labour Costs**

In industry overall, wage costs were a moderate share of total production costs, although they rose between 1991 and 1992 from 20.8% to 22.1%, on average. In both years, their share was highest in the wood and paper products and engineering sectors, and lowest in basic metals and food processing, and while in the two years covered by RLFS3 wages as a share of production costs rose in most sectors they fell in the latter two (Figure 1). The average wage cost share also tended to decline with increased size of establishment.<sup>2</sup>

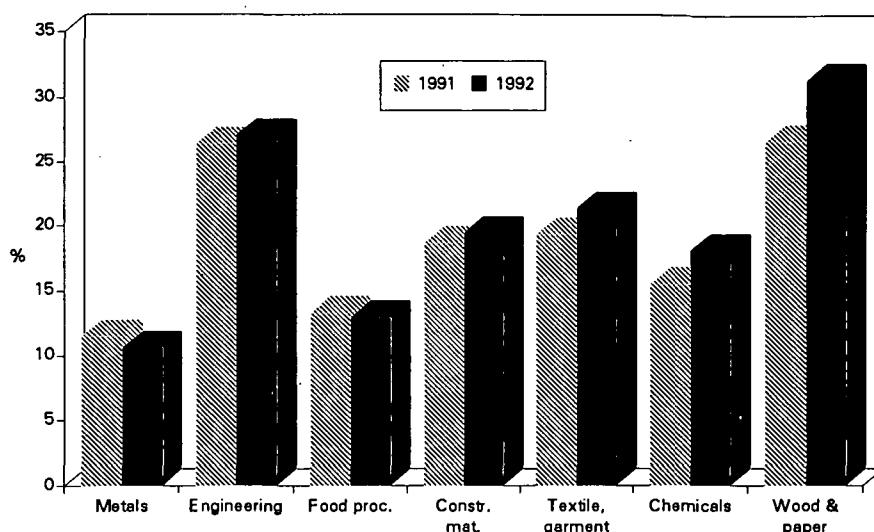
Labour costs — which included 'social consumption' expenditure as well as wages — accounted for 27.5% in 1991 and 30.1% in 1992. In the latter year, they varied from an average of 14.5% in basic metals to 41.2% in wood and paper products

---

<sup>1</sup> G.Standing, Labour market dynamics in Russian industry in 1993: Results from the third round of the RLFS (Budapest, ILO-CEET, Report No.2, 1994).

<sup>2</sup> The statistical unit of the RLFS is an "establishment", which should be distinguished from an "enterprise", which may consist of more than one establishment. The average size of an establishment, in terms of capital, employment, sales, etc, will be much smaller than for enterprises.

Figure 1: Wage Cost Share of Production Costs, by Industry, 1991-92

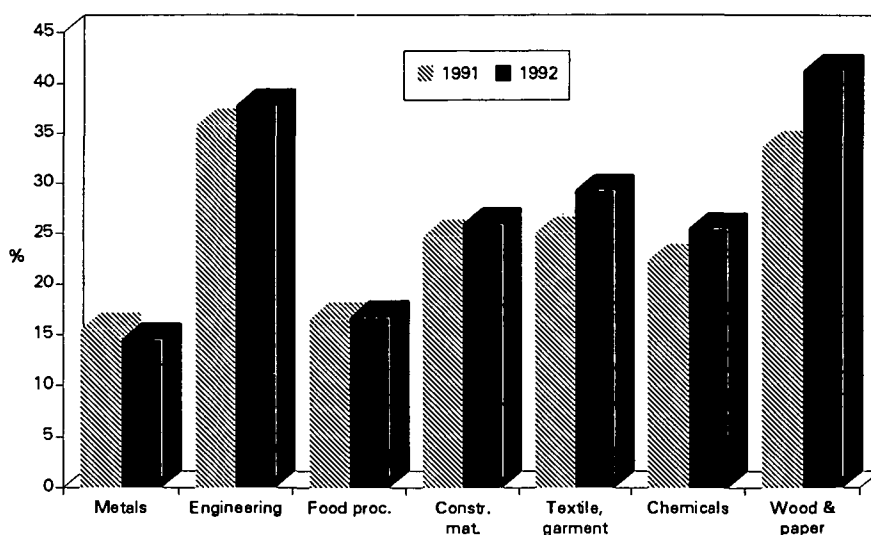


Source: RLFS3

(Figure 2). Managements in one in every four industrial establishments regarded wage costs as likely to be the main labour-related problem facing their firms in the next year, with nearly a third of state establishments reporting that. This seemed to be due to a general tightening of access to funds, to enterprise indebtedness and to the high cost of social or 'fringe' benefits, rather than to high wages per se.

Social expenditure rose as a share of total labour costs, from 24.4% to 26.6%, even though there was a substantial rise in money wages in the period. The rise may have been due to the misguided 'tax-based incomes policy', involving a punitive tax on high wage rises, which encouraged firms to shift to the payment of non-monetary remuneration while preventing them from linking wages to productivity growth and

Figure 2: Labour Cost Share of Production Costs, by Industry, 1991-92



Source: RLFS3

from converting wages into an effective mechanism for boosting work motivation and efficiency.<sup>3</sup>

To examine the variation of labour costs more systematically, an ordinary least squares regression function was estimated in which the wage cost share of production costs was related to industry, region, property form of enterprise, level of capacity utilisation, size of establishment and the change in sales over the previous year. The following function was estimated:

$$\text{Log. \%Wage} = a + b_1\Sigma(\text{IND}) + b_2\Sigma(\text{PROP}) + b_3\Sigma(\text{REG}) + b_4(\text{EMPSIZE}) + b_5(\%\text{SALES}) + b_6(\%\text{CAP}) + e$$

- where Log.%Wage = wage cost as percent of total production cost, in natural logarithm;
- $\Sigma(\text{IND})$  = a set of binaries (0,1) for the industry of establishment, the omitted reference category being textiles and garments;
- $\Sigma(\text{PROP})$  = a set of binaries for the property form of establishment, the omitted category being state enterprises;
- $\Sigma(\text{REG})$  = a set of binaries for the regional location of the establishment, Moscow City being the omitted category;
- %BC = percent of workforce in establishment classified as manual workers;
- %EMPCH = percent employment change in establishment over past year;
- EMPSIZE = size of establishment in number of workers and employees;
- %FEM = percent of workforce consisting of women;
- PT = dummy, 1 if firm employed part-timers, 0 otherwise;
- SUB = dummy, 1 if firm was receiving a government subsidy, 0 otherwise;
- PROF = dummy, 1 if firm was operating a 'profit-sharing' pay system, 0 otherwise;
- %SALES = percent change in sales in real terms in past year;
- %UNION = percent of workers in a trade union;
- e = error term.

Separate functions were estimated for the logarithm of 'social consumption' costs as a share of production costs and the logarithm of total labour costs (wages and social benefits) as a share of production costs. The functions were estimated by means of ordinary least squares regressions, the results of which are shown in Table 1, where three asterisks indicate that the coefficient displayed is statistically significant at the 1% level of probability, two asterisks at the 5% level and one asterisk at the 10% level.

The results suggest that wage costs were relatively high in wood products and engineering and lowest in food processing; they declined with increasing size of establishment, were relatively high in Nizhny Novgorod and, relative to state-owned

---

<sup>3</sup> The impact of this policy has been analysed elsewhere. G.Standing, "Wages and work motivation in the Soviet labour market: Why a BIP, not a TIP is required," *International Labour Review*, Vol.132, August, 1991.

Table 1: Wage, Social and Labour Cost Share of Production Costs, 1992

Variable	Log. % Wage Cost	Log. % Social Cost	Log. % Labour Cost	% Wage Cost Change	% Social Cost Change	% Labour Cost Change
(Constant)	1.1952	0.8304	1.3601	1.6456	4.9949	19.5757
<b>Industry</b>						
Metals	-0.1829	-0.1865	-0.1899 *	-2.4380	-2.0954	-3.2191
Engineering	0.1180 **	0.1394 **	0.1299 ***	-1.7686	-1.1976	-3.5302
Food proc.	-0.2869	-0.3864	-0.3005	-3.2924 *	-1.7319	-5.6347 **
Constr. Mat.	-0.0136	-0.0187	-0.0247	-1.9832	-1.6295	-4.0632
Chemicals	-0.0442	-0.0663	-0.0351	0.8992	-1.8656	-1.4221
Wood & paper	0.1207 *	0.0459	0.0992	1.3786	0.4099	0.3102
<b>Property Form</b>						
Leasehold	0.0700	0.0377	0.0525	-0.8120	-2.1435	-2.4643
Private	0.0297	0.0291	0.0123	-2.8318	-1.0819	-3.4613
Closed Joint Stock	-0.0216	-0.0242	-0.0318	-1.1433	-0.8814	-1.4515
Open Joint Stock	-0.1111 **	-0.1105 **	-0.1168 ***	0.2979	-1.5410 *	-0.3761
<b>Region</b>						
Moscow Region	-0.0096	-0.0040	-0.0075	-1.8858	0.0400	-2.1382
St. Petersburg	0.0379	0.0450	0.0356	0.5771	1.3861	2.1096
Nizhni Novgorod	0.0920 *	0.0876	0.1011 **	0.5541	0.3147	1.0359
Emp. Size	-0.00003 ***	-0.00003 *	-0.00003 ***	-0.0007 *	-0.0003	-5.4003 ***
% Sales Change 92-93	0.00001	0.00001	-0.00002	0.0044	0.0006	0.0052
% Capacity Utilization	0.0009	-0.0002	0.0007	0.0213	-0.0262	-0.0023
R <sup>2</sup> =	0.2825	0.2723	0.3036	0.0544	0.0652	0.0926
F =	7.2090	6.8510	7.9837	1.0532	1.2767	1.8691

Source: RLFS3

establishments, were lowest in open joint stock companies. The latter finding suggests that there would be efficiency gains from property form restructuring.

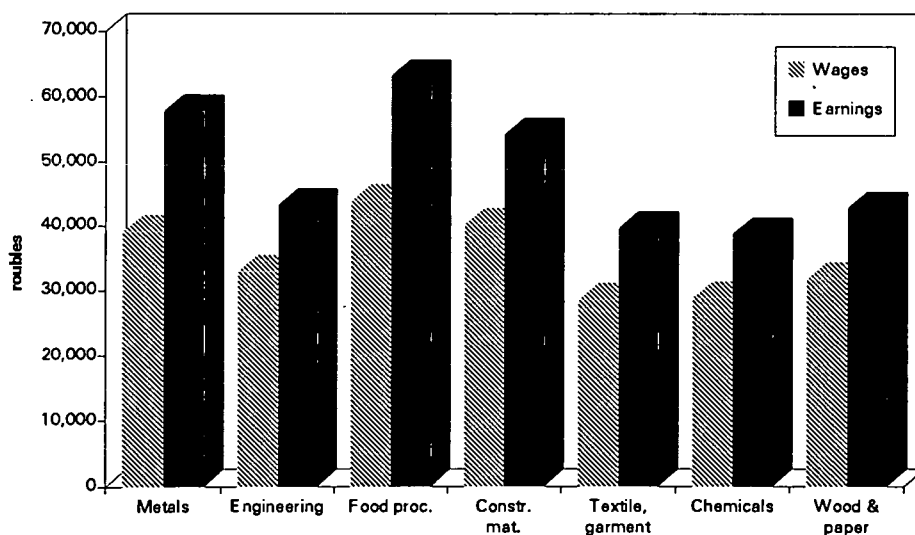
A similar function estimated for the total labour cost share of production costs showed similar sectoral, regional and size variations, and suggested that labour costs were lowest in open and closed joint stock enterprises, further evidence of the presence of efficiency gains linked to property form restructuring of production.

### 3. Wages and Earnings in 1993

As of May 1993, the mean average wage was 34,557 roubles per month (about \$35 at the prevailing exchange rate). There was a substantial difference between wages and total earnings, the latter including bonuses, incentive payments and other supplements. Thus, in May 1993 average earnings were 47,250 roubles per month.

The highest wage and earnings were in food processing, and the lowest in textiles and garments (Figure 3). This corresponded to the pattern found in the first two rounds of the RLFS<sup>4</sup>, and is quite unlike the situation in the 1980s. A pattern has emerged in the Russian labour market for wages to be relatively high in sectors associated with raw material processing and relatively low in sectors dependent on

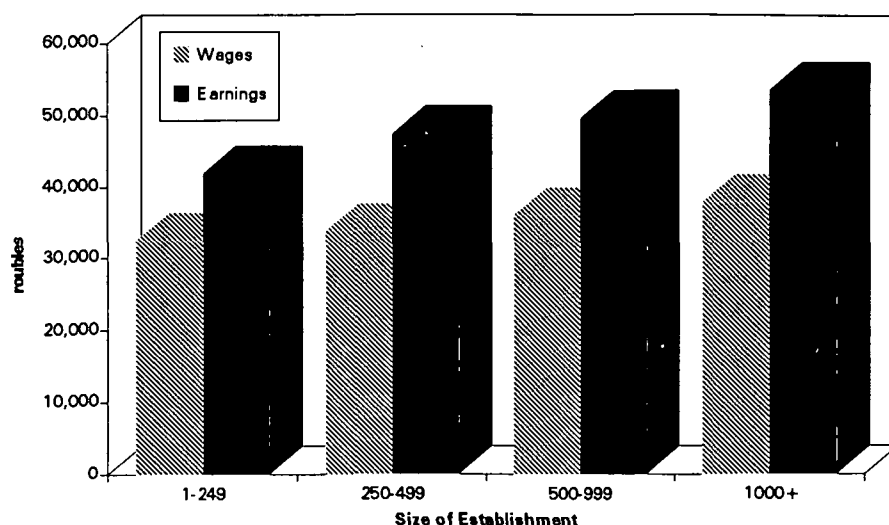
Figure 3: Average Wages and Earnings, by Industry, 1993



Source: RLFS3

<sup>4</sup> G.Standing, "Industrial wages, payment systems and benefits", Paper No.8, presented to the Conferences on Employment Restructuring in Russian Industry, Moscow and St.Petersburg, October 21-28, 1992. In 1993, two conflicting sources of distortion in wage statistics grew much more pronounced. In the non-state parts of the economy, particularly in "services", under-reporting of incomes became severe. In state and privatised enterprises, there was a divergence between contractual wages and actual wages paid. Official Goskomstat data on wages were inflated by not taking that into account.

Figure 4: Average Wages and Earnings, by Size of Establishment, 1993



Source: RLFS3

modern technology.<sup>5</sup> This probably reflects both productivity factors (due to technological stagnation in 'Soviet' industry in the 1980s that dragged down efficiency and due to the excessive labour absorption in engineering-based 'material production') and demand factors (low demand for the products of those sectors and a surplus of workers and employees with the skills required by them).

Because large, monopolistic enterprises have been centres of economic and political power, with an entrenched ability to exact privileges from the state, it was not surprising that average wages and earnings were higher in larger establishments (Figure 4). However, the correlation was less pronounced than in 1991 or 1992.

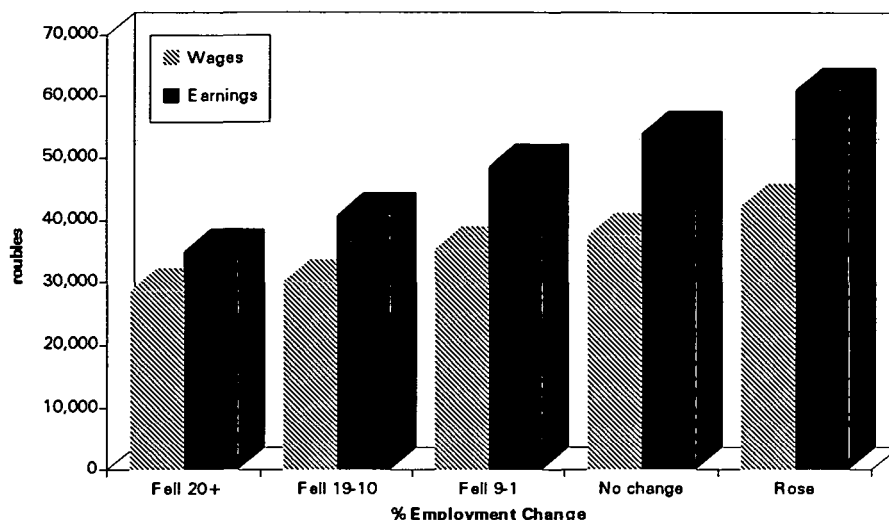
*If* industrial establishments were beginning to respond to market pressures, then one would expect that money wages would have risen by less in factories that had cut employment by more than others. In that respect, it did seem that the labour market was functioning, to some extent at least, in that average monthly wages were highest in factories that had experienced rising employment and lowest in those that had cut employment by 20% or more (Figure 5). Similarly, in firms where the capacity level of production had risen in the past year average wages seemed to be slightly higher (800 roubles on average) than in those where capacity utilisation had fallen; in terms of average earnings the mean difference was over 1,300 roubles.

As for the link to enterprise restructuring, it has been commonly argued that 'privatisation' and alterations in the 'corporate governance' of firms would influence the evolution of wages and employment in Russian industry. One might hypothesise that privatisation would lead to higher wages, once centralised controls were weakened. However, one should be wary of presuming this would occur. It might be hypothesised that, since the erosion of the centralised wage tariff system, state enterprise manage-

<sup>5</sup> A.Stavnitsky, "Wages policy and social partnership", paper prepared for ILO-CEET, May 1994, mimeo. A version was presented at a conference on Wages Policy and Tripartism, in the Ministry of Labour, Moscow, May 24-25, 1994, organised by the Ministry and ILO-CEET.



Figure 5: Average Wages and Earnings, by Percent Employment Change, 1993

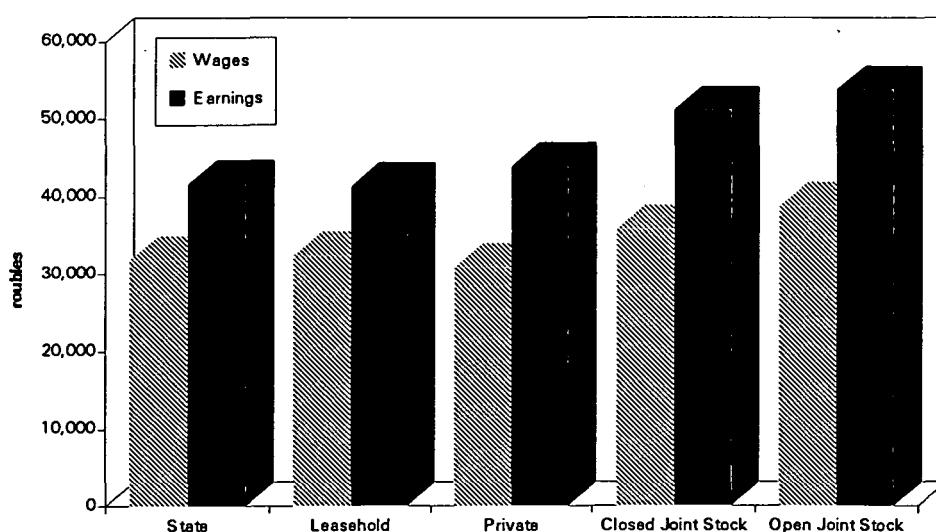


Source: RLFS3

ments would be least inclined to hold down wages, because of the familiar 'soft budget constraint'. Conversely, it might be that the government's attempts to limit wage increases as part of its attempt to limit expenditure could have lead state enterprises to hold down wages more than other enterprises. Meanwhile, joint stock enterprises could be expected to be *more* responsive to market pressures, so although they might exercise greater autonomy in setting wages, the depressed state of the economy could have induced them to hold down wages.

As it is, in terms of simple correlation, a glance at the data suggests that average wages and earnings were highest in open joint stock establishments and relatively low in state enterprises (Figure 6).

Figure 6: Average Wages and Earnings, by Property Form, 1993



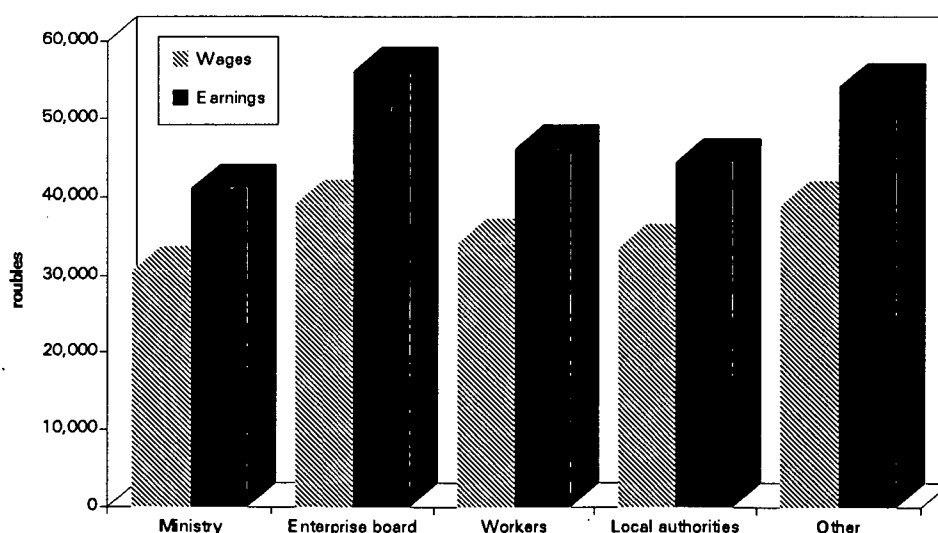
Source: RLFS3

Property form restructuring is also linked to the changing position of management and workers. Theoretically, the creation of closed joint stock companies — in which workers hold a majority of "shares" — and open joint stock companies — in which they hold a substantial minority of shares — will lead to greater "worker control" than in cases of what most observers would depict as "privatisation", where management and ownership control over the workforce would be much greater. However, many observers question whether the different forms of property restructuring of industrial enterprises represented real differences for the workforce in 1993, given the legacy of state domination and the lack of awareness among workers of the potential pressures they could exert.

Besides ownership, the way managements are appointed could be expected to make a difference to absolute and relative wages. Moves towards "economic democracy" within firms, whereby workers could periodically "vote" on management appointments and on a wide range of corporate decisions, are criticised traditionally as resulting in "short-term" decision-making, whereby allocation of funds to wages today is given higher priority than investment or enterprise growth, which might raise future wages. This implies that "external shareholders" would take a longer-term perspective. However, workers within a worker-owned factory may have greater commitment to its survival and growth, and thus be prepared to postpone wage rises.<sup>6</sup>

These are early days in the "governance restructuring" of Russian industry, and it is doubtful whether the de-statisation achieved by mid-1993 had led to a substantial growth of economic democracy. Nevertheless, average wages and earnings actually seemed to be *lower* in factories where top management had been elected by the workers than in those where they had been appointed by an external enterprise board (Figure 7).

Figure 7: Average Wages and Earnings, by Method of Selecting Director, 1993



Source: RLFS3

<sup>6</sup> On these theoretical issues, see M.Nuti, "Mass Privatisation: Costs and Benefits of Instant Capitalism" (London, London Business School, and Budapest, ILO-CEET, 1994).

Basic tabulations may conceal the influence of other factors. Accordingly, we estimated a wage and an earnings function of the following form:

$$\text{Log. W, Log. E} = a + b_1\Sigma(\text{IND}) + b_2\Sigma(\text{PROP}) + b_3\Sigma(\text{REG}) + b_4(\%BC) + b_5(\%EMPCH) + b_6(\text{EMPSIZE}) + b_7(\%FEM) + b_8(\text{PT}) + b_9(\text{SUB}) + b_{10}(\text{PROF}) + b_{11}(\%SALES) + b_{12}(\%UNION) + e$$

where	log.W	= the average wage in the establishment, in natural logarithm;
	log.E	= the average earning in the establishment, in natural logarithm;
	$\Sigma(\text{IND})$	= a set of binaries (0,1) for the industry of establishment, the omitted reference category being textiles and garments;
	$\Sigma(\text{PROP})$	= a set of binaries for the property form of establishment, the omitted category being state enterprises;
	$\Sigma(\text{REG})$	= a set of binaries for the regional location of the establishment, Moscow City being the omitted category;
	%BC	= percent of workforce in establishment classified as manual workers;
	%EMPCH	= percent employment change in establishment over past year;
	EMPSIZE	= size of establishment in number of workers and employees;
	%FEM	= percent of workforce consisting of women;
	PT	= dummy, 1 if firm employed part-timers, 0 otherwise;
	SUB	= dummy, 1 if firm was receiving a government subsidy, 0 otherwise;
	PROF	= dummy, 1 if firm was operating a 'profit-sharing' pay system, 0 otherwise;
	%SALES	= percent change in sales in real terms in past year;
	%UNION	= percent of workers unionised;
	e	= error term.

The wage function was estimated by means of an ordinary least squares regression, with both the logarithm of average wages and of average earnings as dependent variables.

The results, presented in Table 2, show statistically significant inverse relationships between employment change and average wages and earnings, although the quantitative effect is small. It is likely that this reflects a causal relationship from employment change, as an index of product and labour demand, to wages. But the correlation might reflect common influences that are not captured by other factors included in the functions. The results at least suggest that there had been some wage elasticity with respect to changes in employment, and that to some extent the 'labour market' was functioning.<sup>7</sup>

---

<sup>7</sup> This is contrary to the claim made in a recent World Bank paper that there has been "surprising stability in relative wages" in Russian industry. S. Commander, J. McHale and R. Yemtsov, "Russia", paper prepared for the Conference on Unemployment, Restructuring and the Labour Market in Eastern Europe and Russia, Washington D.C., Oct. 7-8, 1993.

Table 2: Log Average Wage and Average Earnings, 1993

Variable	Log. Average Wage	Log. Average Earnings
(Constant)	4.7846	4.8803
<b>Industry</b>		
Metals	0.0403	0.0654
Engineering	-0.0116	-0.0055
Food proc.	0.1491 ***	0.1517 ***
Constr. Mat.	0.1087 *	0.1113 *
Chemicals	-0.0552	-0.0574
Wood & paper	0.0239	0.0149
<b>Property Form</b>		
Leasehold	-0.0162	-0.0359
Private	0.0182	0.0219
Closed Joint Stock	0.0257	0.0287
Open Joint Stock	0.0408	0.0393
<b>Region</b>		
Moscow Region	-0.0954 ***	-0.0692
St. Petersburg	-0.0313	-0.0267
Nizhni Novgorod	-0.0795 ***	-0.0657 *
Emp. Size	0.00002 ***	0.00003 ***
% Manual Workers	-0.0005	-0.0008
% Women 93	-0.0012	-0.0007
Part Timers	-0.0154	-0.0108
Subsidy	0.0080	0.0149
Profit sharing	-0.0596 **	-0.0816 ***
% Sales Change 92-93	0.0001	0.0001
% Emp. Change 92-93	0.0012 **	0.0022 ***
% Unionisation	-0.0665	-0.0520
R <sup>2</sup> =	0.2477	0.2407
F =	4.2354	4.0781

Source: RLFS3

There were also substantial regional variations in average wages, with levels in Moscow Region and Nizhny Novgorod being significantly lower than those in Moscow City. It was also shown that wages were highest in food processing and that those in construction materials were also relatively high. This is interesting, in that wage costs were lowest in food processing, which was despite having relatively high wages.

Perhaps most importantly, average wages in open joint stock enterprises were significantly higher than in other property forms, while the operation of some profit-sharing payment system was inversely related to the average wage, perhaps

highlighting that mechanism's role in creating greater wage flexibility in response to economic performance of the establishment.

It is worth stressing what factors were not significant. Whether sales in real terms had increased or decreased over the previous year did not make any difference to average wages or earnings, even controlling for the influence of "structural" factors. This can be expected to change, and **perhaps** ought to change.<sup>8</sup>

Also, receipt of a government subsidy was not associated with above average wages. Here there may be a problem of causation. It could be that those enterprises under pressure to cut wages obtained subsidies to enable them to keep them at the level found in otherwise comparable enterprises. So, perhaps consider the impact of subsidies as *at most* preventing wages from falling.

Finally, the lack of any effect of union presence suggests that trade unions have remained part of "management" and as intermediaries responsible for the disbursement of social benefits rather than a collective bargainer pushing for higher wages. At least, it would seem most unreasonable to 'blame' unions for wage rises in Russian industry.

#### 4. Occupational Wages

In the context of a slow erosion of the centralised wage tariff system and the gradual decentralisation of wage determination, one could hypothesise that relative wages and earnings **within firms** would widen, especially recalling the 'Leninist' bias in favour of manual labour.

Wage data were collected for seven occupational categories, and although one has to bear in mind that occupational wage variation would have existed within such rather broadly defined categories, the data do provide a picture of the evolution of occupational wages and earnings. We concentrate first on the top category.

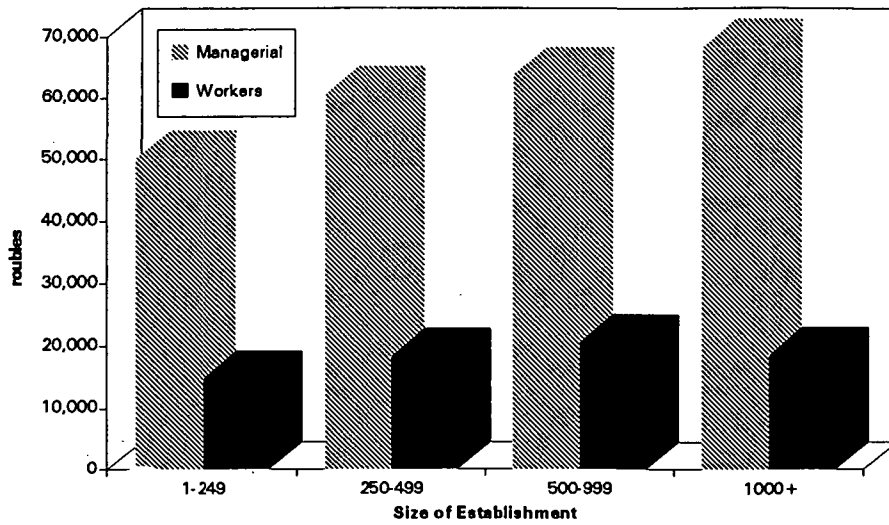
As far as **managerial salaries** are concerned, they averaged 59,239 roubles monthly for the whole sample, ranging from nearly 83,000 in food processing to just over 51,000 in engineering, a pattern quite unlike what would be found in most countries. This surely reflected the previous heavy overemphasis on engineering, and its military bias. Managerial salaries were positively related to size of establishment, in terms of number of workers (Figure 8). This too had been a feature of the old regulated system, and is relevant to the widely-reported resistance by managerial groups to enterprise restructuring (break ups), the necessity of which should be regarded as crucial to the eventual success of economic reform.

To be effective as a mechanism for motivation and reward, managerial salaries should be related positively to profitability and economic performance. On this impor-

---

<sup>8</sup>This latter point is not as obvious as it might appear. According to "solidaristic wage theory", as epitomised by the Rehn-Meidner Swedish model, if relative wages do not adjust to productivity, profitability and sales, pressures to achieve economic restructuring will be intensified, whereas if wages merely fell in low-performance enterprises or sectors, pressures for restructuring would be weak.

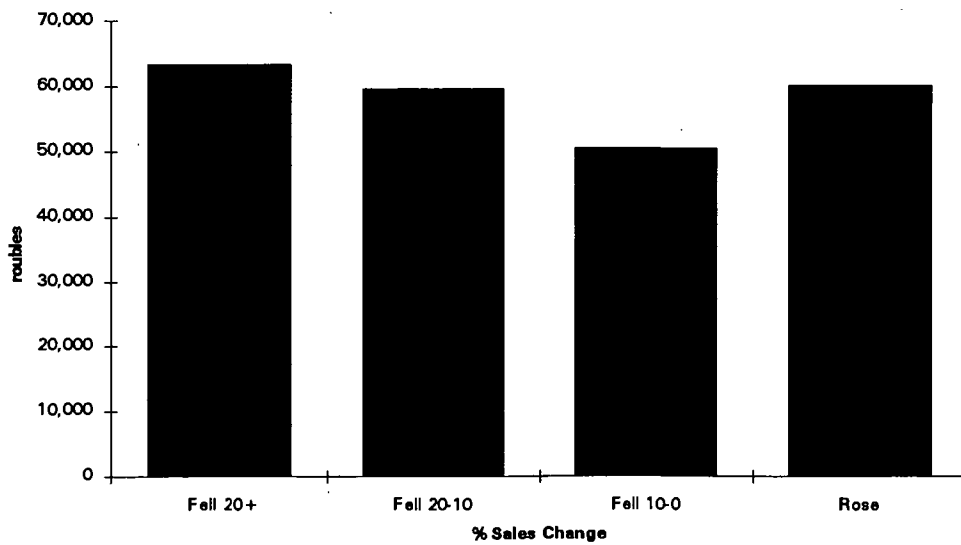
Figure 8: Managerial and Workers' Salaries, by Size of Establishment, 1993



Source: RLFS3

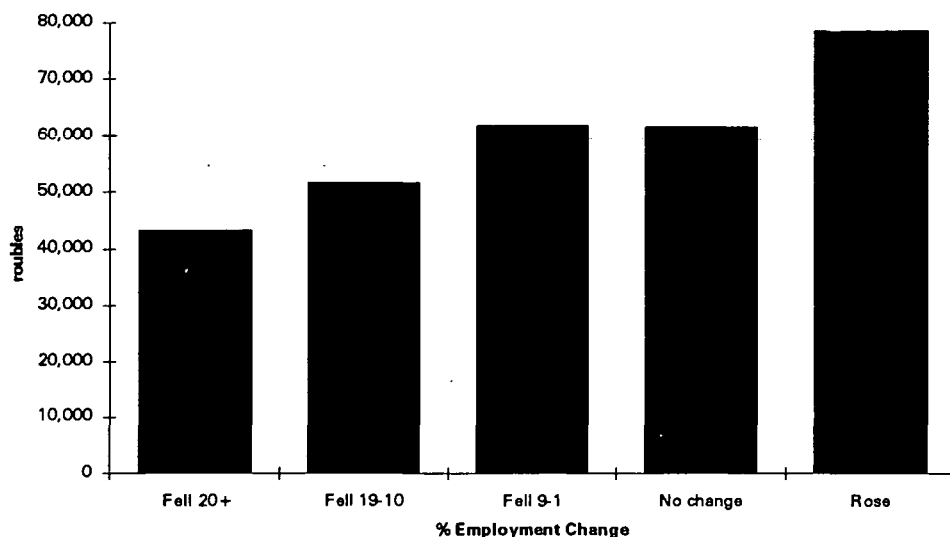
tant issue, there seems to have been little change in the early 1990s. As Figures 9 and 10 show, **managerial salaries were not linked to sales performance**, although they were correlated with employment change, being much higher in establishments in which employment had risen over the past year, and lowest in those that had cut employment by over 20%.

Figure 9: Managerial Salaries, by Sales Change, 1993



Source: RLFS3

Figure 10: Managerial Salaries, by Percent Employment Change Over Past Year, 1993



Source: RLFS3

Local labour market factors may have a differentiating influence, since managerial salaries tended to be higher in Moscow City than in the other regions. One anticipates that such regional differences will be growing in the next few years, as regional disparities in economic prosperity and growth widen.<sup>9</sup>

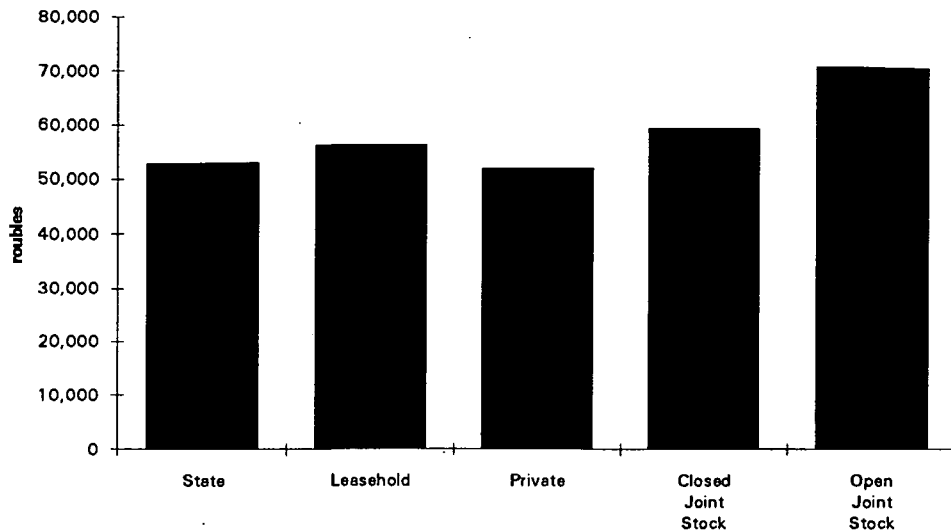
Managers also seemed to be earning higher salaries in open joint stock enterprises, and to a lesser extent in closed joint stock companies, than in state enterprises (Figure 11). There was also a tendency for managers to be relatively better paid than others in those factories where managers had been appointed by an enterprise board, as compared with those in which they had been appointed by a sectoral Ministry, local authorities or the work collective (Figure 12).

Although tabulations for other occupational groups showed some similarities and some differences from those for managerial employees, the remainder of this section focuses on the results of occupational wage functions, in which the dependent variable was the logarithm of either the average wage or earnings for the occupational category. The results are presented in Table 3.

For **managerial employees**, multivariate analysis brings out the relatively high earnings in the food processing sector and the influence of regional labour markets, and shows that when controlling for the influence of other factors, average wages were positively related to size of establishment, supporting the view that because size is related to management incomes managers in Russian industry have fought to preserve their establishments as large-scale units. Their salaries were also positively related to

<sup>9</sup> Regional differentials highlight the need to reduce constraints to inter-regional labour mobility, meaning a full abolition of the *propiska* (residence permit) system, which was abolished by Presidential Decree in 1993, although as of early 1994 not put into effect in many oblasts. It also means creating a real housing market.

Figure 11: Managerial Salaries, by Property Form, 1993

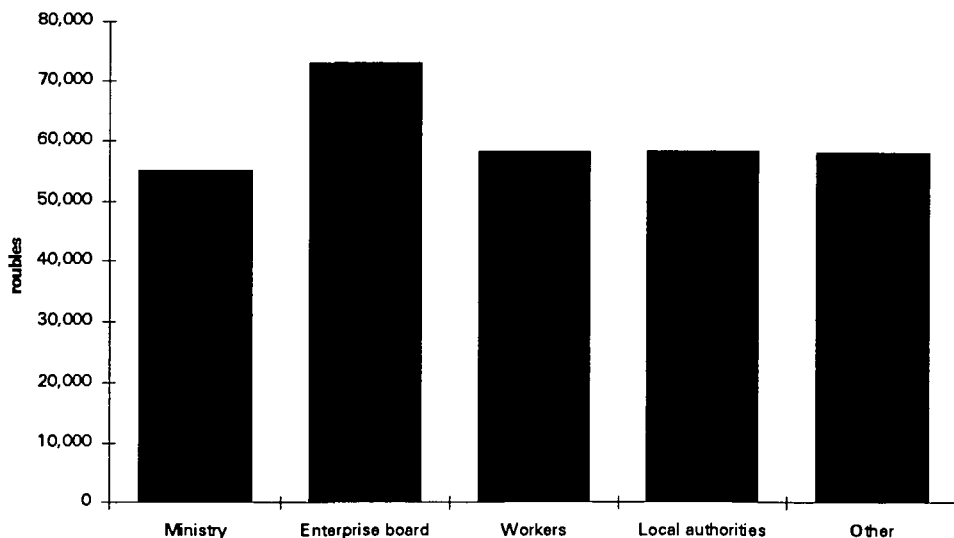


Source: RLFS3

changes in employment. Note that sales performance did not seem to have any effect on managerial salaries. As emphasised earlier, this would have to change if a dynamic competitive economy is to evolve.

For **specialist employees**, salaries were positively linked to employment change and to employment size of establishment, as well as to sector and regional location, further suggesting that local labour market conditions were producing wage differentiation.

Figure 12: Managerial Salaries, by Method of Selecting Director, 1993



Source: RLFS3



Table 3a: Occupational Wages, 1993

Variable	Managers	Specialists	Gen. Service	Supervisors	Technicians	Skilled Workers	Unskilled Workers
(Constant)	5.1178	4.8198	4.5680	4.9896	4.8919	4.9002	4.5751
<b>Industry</b>							
Metals	-0.0439	-0.0372	-0.1179	0.0156	-0.0384	-0.0516	0.0143
Engineering	-0.1694 **	-0.1190 *	-0.1304 *	-0.0845	-0.1526 **	-0.0641	-0.1038
Food proc.	0.1133 **	0.1146 **	0.1367 **	0.1292 ***	0.1004 **	0.0996 **	0.1961 ***
Constr. Mat.	-0.0815	-0.0170	-0.0490	-0.0130	-0.0595	0.0341	0.0001
Chemicals	-0.0816	-0.0187	-0.0110	-0.0622	-0.0488	-0.0855	-0.0616
Wood & paper	-0.0972	-0.0131	-0.0633	-0.0644	-0.0814	-0.0926	-0.1271
<b>Property Form</b>							
Leasehold	0.0514	-0.0135	-0.0166	0.0003	-0.0428	-0.0592	-0.1037
Private	-0.0463	-0.0435	-0.0541	-0.0525	-0.0558	-0.0551	-0.0668
Closed Joint Stock	0.0008	0.0055	-0.0165	0.0001	-0.0297	-0.0054	-0.0172
Open Joint Stock	0.0523	0.0547 *	0.0303	0.0609 *	0.0434	0.0210	0.0065
<b>Region</b>							
Moscow Region	-0.0964 **	-0.1106 **	-0.1013 **	-0.1076 **	-0.1091 **	-0.1319 ***	-0.0875
St. Petersburg	-0.0559	-0.0748 **	-0.0846 **	-0.0623 *	-0.0764 **	-0.0184	-0.0072
Nizhni Novgorod	-0.1090 ***	-0.0912 ***	-0.1278 ***	-0.0863 **	-0.0846 **	-0.0887 ***	-0.0754 *
Emp. Size	0.00003 ***	0.00002 **	0.00002 *	0.00002 **	0.00002 **	0.00002 **	0.00003 **
% Manual Workers	0.0063 ***	0.0061 ***	0.0068 ***	0.0055 ***	0.0066 ***	0.0043 **	0.0045 *
% Women 93	-0.0036 ***	-0.0029 **	-0.0025 *	-0.0027 **	-0.0032 ***	-0.0034 ***	-0.0024 *
Part Timers	-0.0228	-0.0014	-0.0282	0.0014	0.0065	-0.0022	-0.0122
Subsidy	-0.0258	0.0148	-0.0287	0.0177	0.00003	0.0049	-0.0166
Profit sharing	-0.0154	-0.0337	-0.0387	-0.0295	-0.0232	-0.0393	-0.0938 **
% Sales Change 92-93	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001 *	0.00002
% Emp. Change 92-93	0.0016 **	0.0018 **	0.0015 *	0.0019 ***	0.0016 **	0.0015 **	0.0018 **
% Unionisation	-0.2604 **	-0.2666 **	-0.1809	-0.2930 **	-0.3006 **	-0.2321 **	-0.1887
R <sup>2</sup> =	0.3682	0.3960	0.3481	0.3679	0.3698	0.3461	0.3739
F =	4.5038	5.0664	4.1256	4.4971	4.5340	4.0890	4.6137

Source: RLFS3

Table 3b: Occupational Earnings, 1993

Variable	Managers	Specialists	Gen. Service	Supervisors	Technicians	Skilled Workers	Unskilled Workers
(Constant)	5.1401	4.7580	4.4832	4.9965	4.8349	4.9010	4.5155
<b>Industry</b>							
Metals	-0.0206	0.0061	-0.0373	0.0430	0.0083	-0.0310	0.0649
Engineering	-0.1670 **	-0.1061	-0.1078	-0.0763	-0.1340 *	-0.0633	-0.0626
Food proc.	0.1591 **	0.1537 ***	0.1777 ***	0.1772 ***	0.1449 **	0.1328 **	0.2302 ***
Constr. Mat.	-0.0722	0.0030	-0.0171	-0.0020	-0.0424	0.0441	0.0276
Chemicals	-0.0679	0.0119	0.0293	-0.0358	-0.0148	-0.0587	-0.0036
Wood & paper	-0.1023	-0.0145	-0.0600	-0.0635	-0.0888	-0.0705	-0.1311
<b>Property Form</b>							
Leasehold	0.0903	0.0365	0.0324	0.0536	0.0130	-0.0292	-0.0830
Private	0.0088	-0.0114	-0.0171	0.0018	-0.0225	-0.0303	-0.0354
Closed Joint Stock	0.0495	0.0454	0.0236	0.0509	0.0105	0.0241	0.0215
Open Joint Stock	0.0748 *	0.0752 *	0.0514	0.0892 **	0.0732 *	0.0441	0.0354
<b>Region</b>							
Moscow Region	-0.1004 *	-0.1184 **	-0.1053 *	-0.1102 **	-0.1091 **	-0.1136 **	-0.0586
St. Petersburg	-0.0572	-0.0749 *	-0.0843 **	-0.0607	-0.0716 *	-0.0038	0.0067
Nizhni Novgorod	-0.1112 **	-0.0957 **	-0.1264 ***	-0.0909 **	-0.0843 **	-0.0697 *	-0.0680
Emp. Size	0.00003 ***	0.00002 **	0.00002 *	0.00003 **	0.00002 **	0.00002 **	0.00003 **
% Manual Workers	0.0073 ***	0.0069 ***	0.0074 ***	0.0063 **	0.0075 ***	0.0048 **	0.0047 *
% Women 93	-0.0045 ***	-0.0034 **	-0.0027 *	-0.0034 **	-0.0037 ***	-0.0038 ***	-0.0024
Part Timers	-0.0115	0.0065	-0.0197	0.0080	0.0174	-0.0116	-0.0223
Subsidy	-0.0190	0.0208	-0.0177	0.0077	0.0005	0.0001	0.0015
Profit sharing	-0.0285	-0.0359	-0.0389	-0.0359	-0.0291	-0.0490	-0.1063 ***
% Sales Change 92-93	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002 *	0.0001
% Emp. Change 92-93	0.0022 **	0.0025 ***	0.0023 ***	0.0026 ***	0.0025 ***	0.0023 ***	0.0027 ***
% Unionisation	-0.2449	-0.2166	-0.1252	-0.2564 *	-0.2509 *	-0.1840	-0.1351
R <sup>2</sup> =	0.3539	0.3916	0.3533	0.3599	0.3855	0.3478	0.3861
F =	4.2325	4.9735	4.2217	4.3440	4.8468	4.1207	4.8602

Source: RLFS3

For **general service employees**, regional factors and sector of employment seemed to be the main influences, whereas for **supervisory, technician and skilled workers** employment size of establishment and employment change appeared to be the main differentiating factors. For **unskilled workers**, the most striking result is that wages were strongly inversely related to the existence of some sort of profit-sharing. This suggests that, to the extent that it represents a means by which management can introduce wage flexibility, "profit sharing" pay leads to lower wages for unskilled manual workers, although not for other categories. This issue needs more detailed study.<sup>10</sup> The implication is that the growing wage flexibility could intensify inequality.

Two general findings should give rise to concern. First, unlike the comparable findings in 1991 and 1992, the wages of all occupational groups except unskilled workers were lower the higher the percentage of women in the factory workforce. This corresponded to the finding that women's earnings have declined relatively to men's, even though they remained close by international standards.<sup>11</sup> Second, whether or not the workers were represented by a trade union did not make any difference to the level of wages of any group, and this applied whether the independent variable used was *presence* of a trade union or percent of workers unionised. Indeed, the sign of the regression coefficient was *negative* for all groups and was actually weakly statistically significant for higher-level manual workers. In a situation of strong independent trade unions bargaining for workers, the regression coefficients would be positive and highly significant.<sup>12</sup> The results further substantiate the view that trade unions continue to be part of management or concerned with social issues rather than with wage bargaining.

The property form of establishment did not seem to make much difference to some occupational wage levels, although there was a weak positive impact associated with open joint stock enterprises for high-grade groups. The weak relationship may be due to the fact that most non-state enterprises had only recently changed property form, or it may be due to the limited nature of the changes.<sup>13</sup> However, the results point to a widening of wage differentials linked to 'privatisation'.

We can conclude that occupational wages were linked to structural factors such as enterprise size, location of enterprise, employment change and industrial sector. To that extent, a labour market was operating, although one may expect that property

---

<sup>10</sup> In 1994, ILO-CEET launched a comparative study of wage payment systems in central and eastern Europe, examining the links between privatisation, "employee-ownership" and such mechanisms as profit sharing, which may turn out to deserve another name in the Russian context.

<sup>11</sup> For an analysis based on the first two rounds of the RLFS, see G.Standing, "The Changing Position of Women in Russian Industry: Prospects of Marginalisation", World Development, Vol. 22, No. 2, Feb. 1994, pp. 217-83.

<sup>12</sup> This has been demonstrated in numerous empirical studies in other countries. For the USA, for example, see R.B.Freeman and J.Medoff, What Do Unions Do ? (New York, Basic Books, 1984).

<sup>13</sup> It might also reflect earnings differentiation coming through non-wage forms. The suspicion must remain that under-declaring of wages and salaries was greater in "privatised" enterprises. In any case, the results highlight the point that one should be wary about accepting simple correlations revealed in tables or figures.

form, union strength and economic performance will have significant influences in the near future.

## 5. Occupational Wage Differentials

For many years, occupational wage differentials in Soviet industry were apparently narrow and subject to the rhetoric of 'levelling'.<sup>14</sup> Although the differentials were distorted more than levelled, a narrowing of wage differentials was part of the ideology of the Soviet labour system. Developments since the 1980s have become increasingly controversial.

Within industry, according to the RLFS3, perhaps the most dramatic development was that within firms, wage differentials between occupational categories had widened since the first two rounds of the RLFS in 1991 and 1992.<sup>15</sup> For instance, whereas managers on average earned salaries that were 2.4 times the wages of unskilled workers in 1991, the results for 1993 suggested that they were earning 3.6 times as much. The comparable differential had increased for all categories.<sup>16</sup>

There was inter-sectoral variation, with differentials being much greater in wood and paper production and least in construction materials (Table 4). Differentials tended to be much wider in labour-intensive firms where the labour cost share of production costs were relatively high. Although there was no apparent difference by size of establishment (Table 5), one might interpret the finding that wage differentials were wider in factories in which employment had fallen as evidence that wage elasticities were greater for workers than for managerial and administrative employees (Figure 13). In other words, the labour market was working more for workers than for employees.

Table 4: Wage Ratio of Occupational Groups Compared to Unskilled Workers, by Industry, 1993

Industry	Managerial	Specialist	Gen.Service	Supervisory	Technician	Skilled
Metals	3.54	2.01	1.21	2.84	2.07	1.78
Food processing	3.73	2.24	1.33	2.94	1.67	2.40
Constr. materials	2.94	1.80	1.32	1.82	1.30	1.57
Textiles, garments	3.34	2.22	1.42	2.69	1.86	2.23
Chemicals	3.84	2.35	1.72	2.98	1.69	1.95
Wood & paper	3.91	2.63	1.51	3.13	2.00	2.13
Engineering	3.79	2.75	1.53	2.82	1.65	2.33
Total	3.57	2.24	1.43	2.70	1.65	2.10

Source: RLFS3

<sup>14</sup> See, for instance, T.Chetvernina, "Labour incentives in alternative forms of production", in G.Standing (ed.), *In Search of Flexibility: The New Soviet Labour Market* (Geneva, ILO, 1991), pp.203-20.

<sup>15</sup> For the earlier results, see Standing, 1992, op.cit.

<sup>16</sup>The results for wage differentials were similar if occupational earnings were compared, that is, including bonuses and benefits. As Table 7 shows, including non-wage forms of remuneration did make some changes in the statistical significance of a few variables, but the results were similar.

Table 5: Wage Ratio of Occupational Groups Compared to Unskilled Workers, by Size of Establishment, 1993

Size	Managerial	Specialist	Gen.Service	Supervisory	Technician	Skilled
1-250	3.44	2.25	1.17	2.49	1.09	2.19
251-500	3.81	2.40	1.66	2.96	1.80	2.17
501-1000	3.37	2.11	1.50	2.59	1.92	1.91
1001+	3.55	2.08	1.44	2.72	2.06	2.01
Total	3.57	2.24	1.43	2.70	1.65	2.10

Source: RLFS3

As for the effect of property form, differentials seemed to be smaller in closed joint stock enterprises, where — although one must be sceptical about its extent — 'economic democracy' may have played a role in limiting the growth of wage differentials between the workers and management. They were smaller there than in any other type of firm (Table 6). This result may be stronger than it seems. There have been anecdotal reports that management salaries have been chronically understated following the growth of the unregulated private economy and the decentralisation and weakening of the old wage-tariff, wage-fund system.<sup>17</sup> This understatement would probably be much less in firms in which workers are major shareholders, although the limiting effect of their 'voice' undoubtedly has been small, so far. However, it may be because wages and salaries of higher-level employees were held down by a perception of *relatively* strong worker control (or constraint) that average wages overall were actually lower in factories where workers were able to vote on management appointments. This is worth emphasising, since it raises questions about the widespread view that 'worker control' leads to higher wages. By limiting differentials, the reverse could be the reality.

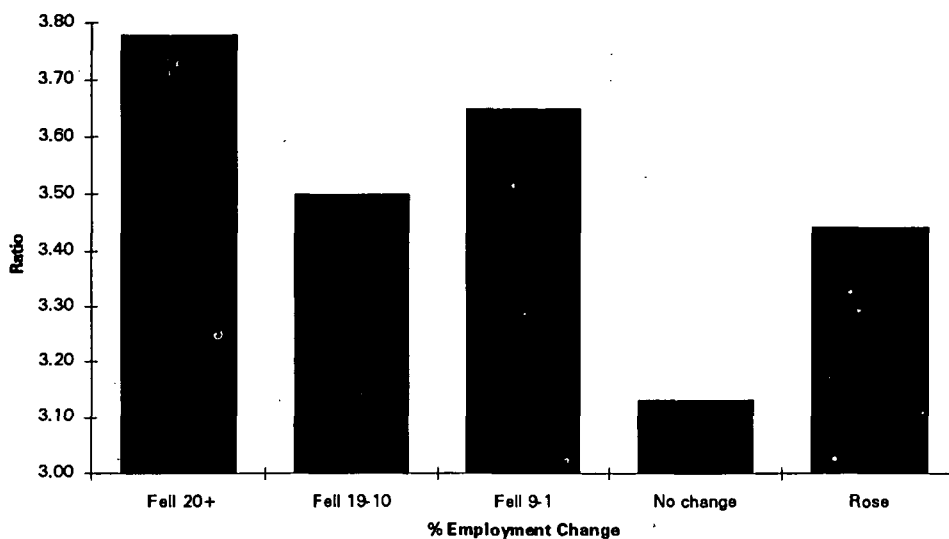
Table 6: Wage Ratio of Occupational Groups Compared to Unskilled Workers, by Property Form, 1993

Property Form	Managerial	Specialist	Gen.Service	Supervisory	Technician	Skilled
State	3.66	2.36	1.42	2.68	1.55	2.18
Leasehold	3.89	2.08	1.53	2.87	1.87	2.32
Private	3.69	2.40	1.51	2.98	1.41	2.02
Closed Joint Stock	3.29	2.10	1.32	2.65	1.47	2.08
Open Joint Stock	3.51	2.16	1.46	2.61	1.90	1.99
Total	3.57	2.24	1.43	2.70	1.65	2.10

Source: RLFS3

<sup>17</sup> Many managers have hidden behind the device of calling their salaries a "commercial secret". Stavnitsky, 1994, op.cit.

Figure 13: Ratio of Managerial Wages to Unskilled Workers' Wages, by Percent Employment Change Over Past Year, 1993



Source: RLFS3

## 6. Difficulty in the Payment of Wages

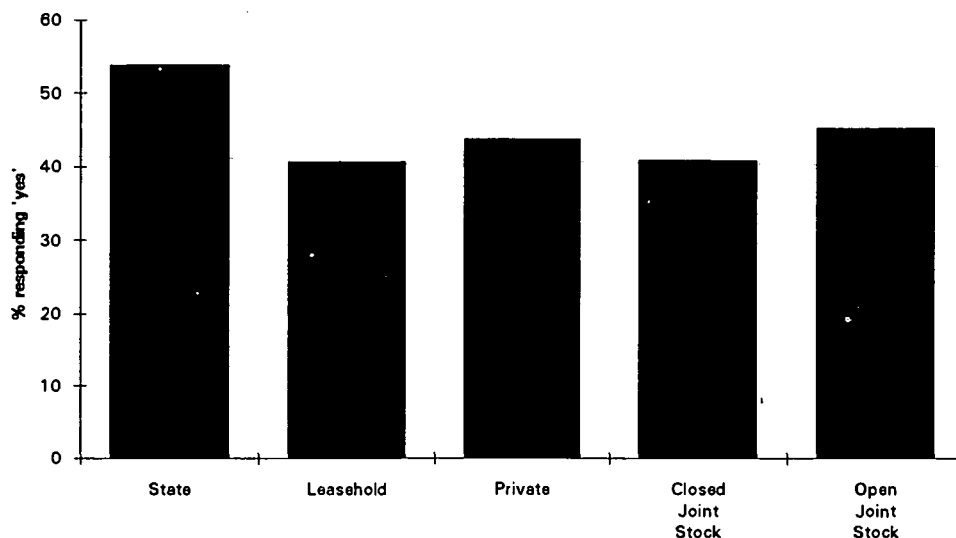
During 1992 and 1993, there was much national and international comment about the rise in average real wages in Russia indicated by official Goskomstat data. Many commentators suggested that this indicated that the labour and employment situation was not as bad as had been claimed, and that public discontent was limited because those in employment were doing well.

In reality, the reported wages from the quarterly forms filled for *Goskomstat RF* (the Russian State Committee for Statistics) have been the statutory wages to which enterprises were committed, not necessarily those they actually paid. There have been numerous reports that many enterprises did not pay anything like the full amount. Accordingly, firms in the RLFS3 were asked if they had severe difficulty in paying wages that they had agreed to pay. Nearly 47% of all firms — and 53.8% of state firms — reported that they had such difficulty, with 60% of engineering firms, which covered many providing products for the military-industrial complex (Figure 14).

For over half of those that had difficulty in paying wages (60.5%), the *main* reaction had been to pay wages with a delay and to pay *all* workers at that time. Among the other main reactions mentioned, 16.6% took loans to pay wages, 12.7% paid some workers with a delay, not all, and 5.7% paid workers part of their wages.<sup>18</sup>

<sup>18</sup> Those that reported that they had paid wages with a delay, or that had obtained a loan to pay the wages, may also have paid less than the full amount. In the next round of the RLFS, the questions will be modified to clarify this issue.

Figure 14: Difficulty in Paying Wages, by Property Form, 1992-93

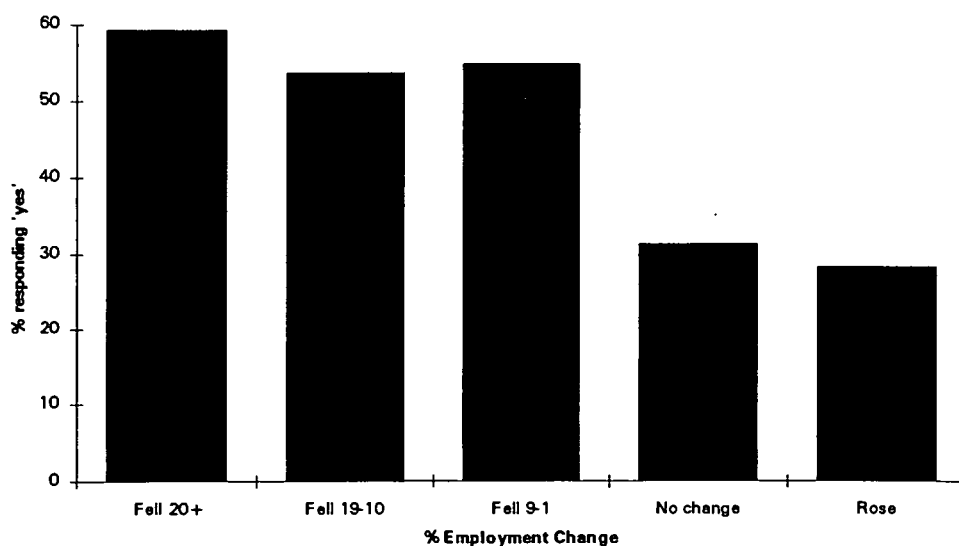


Source: RLFS3

Resorting to loans was far more common among large-scale establishments, being the response of one-quarter of factories with more than 1,000 workers.

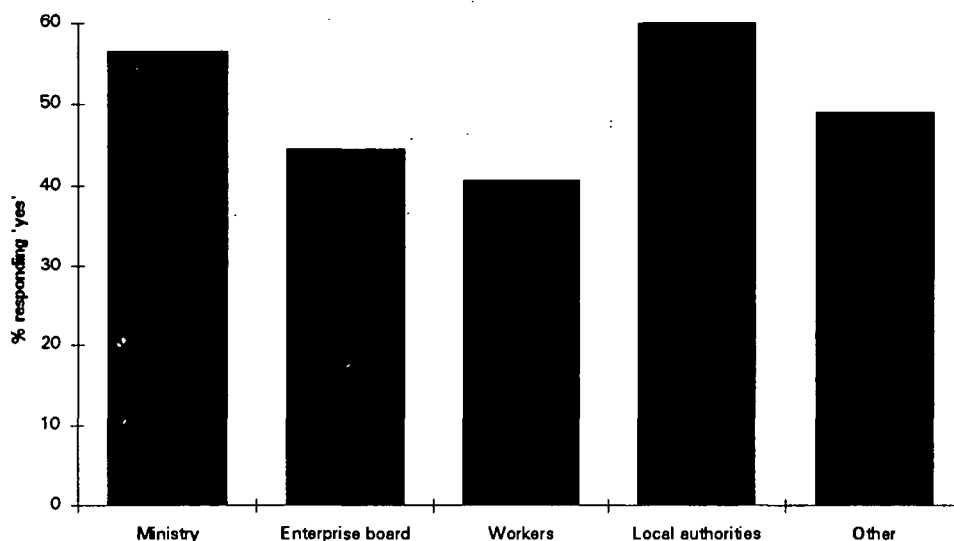
Those that had cut employment the most were also most likely to have had difficulty in paying wages (Figure 15). Those factories that reported having had difficulty had cut employment by 13.4% on average, whereas those that reported no such difficulty had cut by only 4.7% on average. Those that had experienced declines in their rate of capacity utilisation were also relatively likely to have had difficulty in paying wages. There was also a suggestion that state enterprises reporting to government authorities were under greater financial pressure over wages than joint stock enterprises, whether the managers were appointed by an enterprise board or the work collective (Figure 16).

Figure 15: Difficulty in Paying Wages, by Percent Employment Change, 1992-93



Source: RLFS3

Figure 16: Difficulty in Paying Wages, by Method of Selecting Director, 1992-93

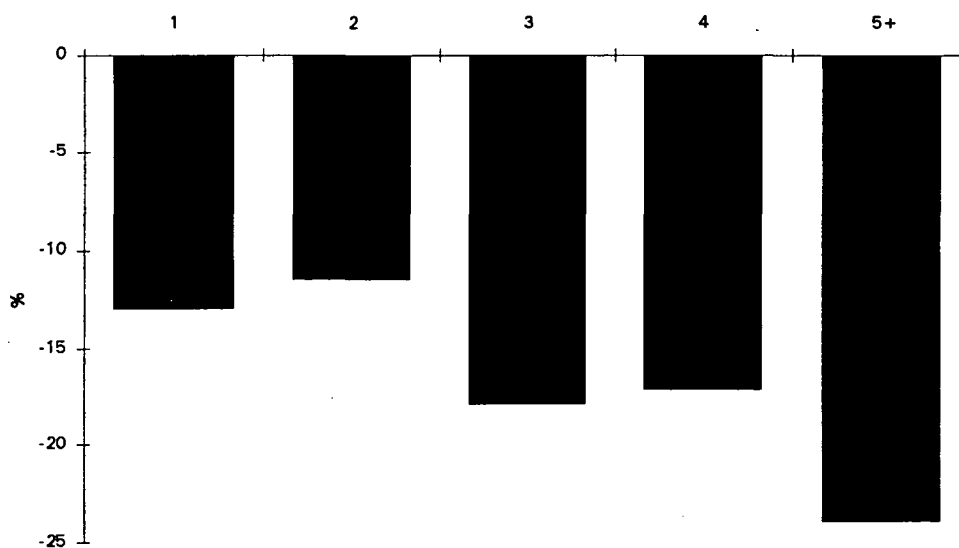


Source: RLFS3

The period of not paying wages was relatively long in firms that had cut employment (Figure 17). This might be interpreted as *prima facie* evidence that not paying wages was a partial alternative to employment cuts, even though non-payment was also associated with cutting employment.

In sum, there was widespread difficulty in paying wages, a finding that supports the claims made in late 1993 and early 1994 by the leadership of the General Federation of Trade Unions (FITUR), among others, that millions of workers had not

Figure 17: Percent Employment Change, by Period of Not Paying Full Wage (in weeks), 1992-93



Source: RLFS3



been receiving wages due to them.<sup>19</sup> The average wages reported in official statistics should be deflated to take this into account.

## 7. Low Pay within Industry

In the course of fieldwork and factory visits for RLFS1 and RLFS2, it became apparent that indices of average wages and occupational wages overlooked another growing phenomenon in Russian industry. In most factories, some groups of workers were receiving much lower wages than the remainder. From discussions with managements and others, it seemed as if the decentralisation and even disintegration of the wage tariff system was leading to the emergence of new groups of low-paid workers. Ironically, one contributing factor seemed to be the 'excess wage tax' — or tax-based incomes policy — whereby in 1993 if the establishment's average wage exceeded four times the statutory minimum wage, it seemed to be subject to a supplementary 32% tax, which became 50% if the wage rose to six times the minimum.<sup>20</sup> One of the justifications given by supporters of this tax was that it would reduce wage differentials by putting a cap on wages. Thus, the irony. The tax allowed and encouraged managements to widen differentials in their plant, to give higher wages to highly valued workers and employees and much lower wages to others.

Although there were anecdotal reports of the emergence of very low paid groups within factories, as of 1993 there were no data. Accordingly, in RLFS3 an experimental set of questions was devoted to identifying the lowest paid. Overall, on average the lowest paid group were paid 63% of the average wages paid to manual skilled and unskilled workers while among so-called employees the lowest paid group received 30.4% of the average monthly salaries of all employees. On average, managerial salaries were over six times the wages received by the lowest paid groups of workers, a gap which was accentuated by other forms of payment. Potentially, wage and earnings differentials play important roles within and between firms. However, in interpreting those figures one should recall that managerial salaries did not seem to be related to performance, while wages that were less than one third of the average wage were less than the official subsistence level of income. **This category of working poor has received rather little attention among Russian policy makers or in research.**

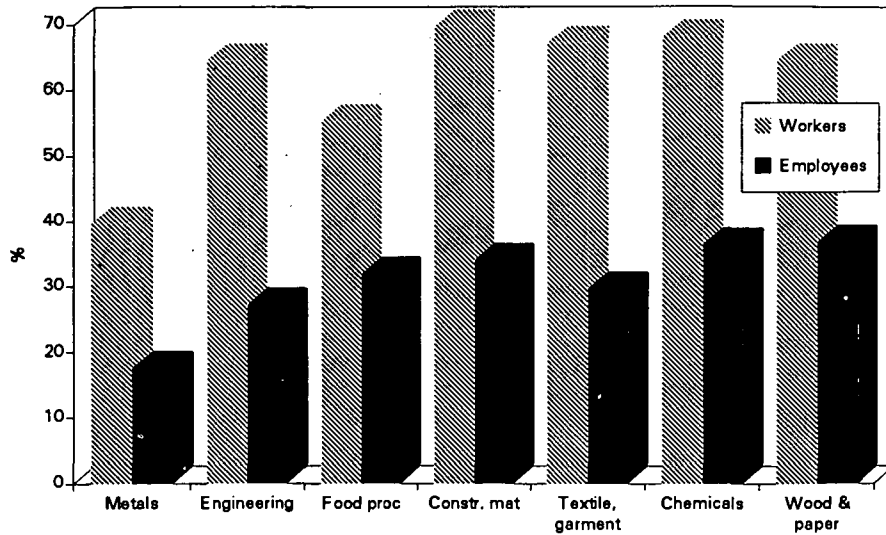
It was clear that differentiation between the lowest paid and the remainder was greater for the 'employee' category, which was the case in all industries (Figure 18). However, over the previous year, the lowest paid **workers** had suffered a deterioration relative to their low-paid counterparts among **employees**. In mid-1992, the lowest wage averaged 2,065 roubles for employees and 1,525 roubles for workers;

---

<sup>19</sup> According to the trade unions, in early 1994 there were 35,000 enterprises in Russia that owed their workers wage arrears, according to Mikhail Schmakov, President of the Federation of Independent Trade Unions of Russia., in a speech to the Conference on Tripartism and Incomes Policy, Moscow, May 24, 1994. This raises questions about *ILO Convention No 95*, which forbids this practice and which has been ratified by the Russian Government.

<sup>20</sup> In 1994, this tax was modified to put a uniform 32% rate on wages above six times the minimum wage. In May, 1994, the Minister of Labour considered putting a further high tax on wages that were twenty times the minimum wage.

Figure 18: Lowest Wage as Percent of Average Wage, by Industry, 1993

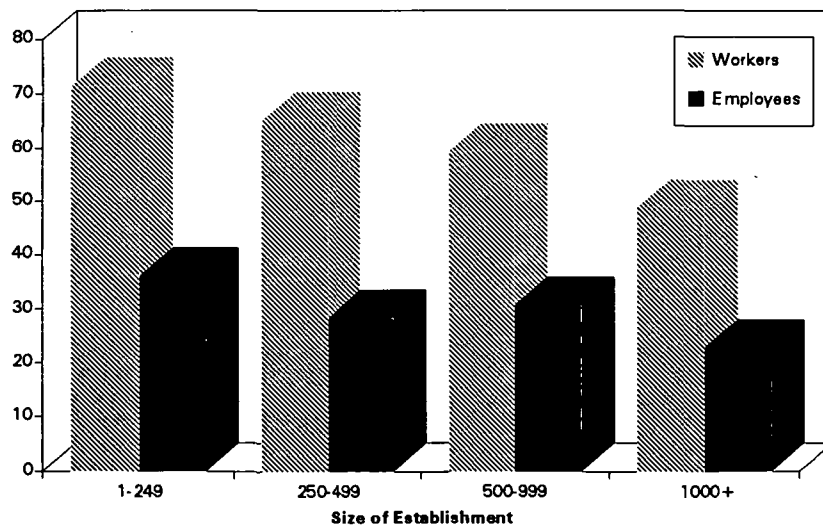


Source: RLFS3

in mid-1993, it averaged 15,908 for employees and 10,174 for workers. In 1992, among employees the lowest paid had the lowest wages in engineering, in state enterprises and in large-scale firms, whereas among workers the lowest levels were in chemicals and engineering, state enterprises and in factories with more than 500 workers. In 1993, the lowest for both employees and workers was to be found in the metals sector, in open and closed joint stock companies and in large-scale establishments (Figure 19).

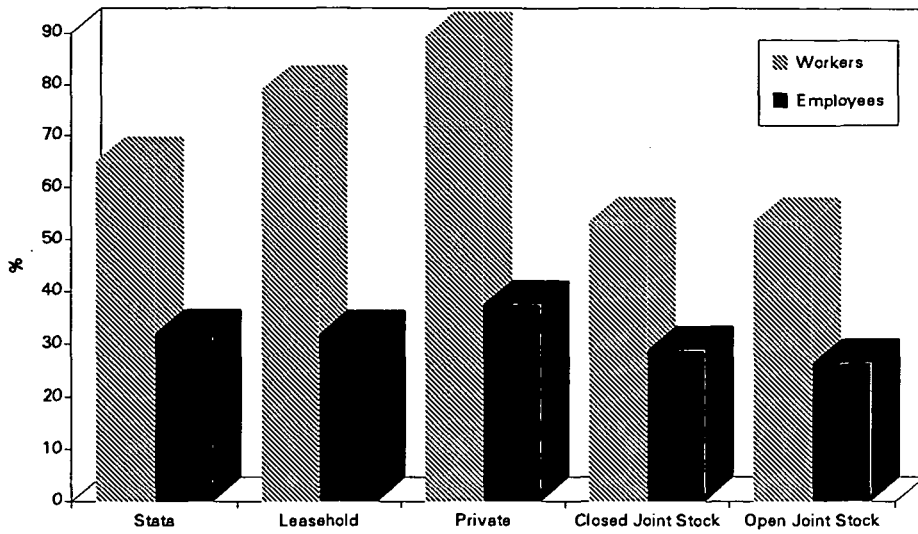
For manual workers, the differential between the lowest paid group and the average wage was smaller in open and closed joint stock enterprises than in state enterprises (Figure 20) and the differential was smaller in larger-scale establishments.

Figure 19: Lowest Wage as Percent of Average Wage, by Size of Establishment, 1993



Source: RLFS3

Figure 20: Lowest Wage as percent of Average Wage, by Property Form, 1993

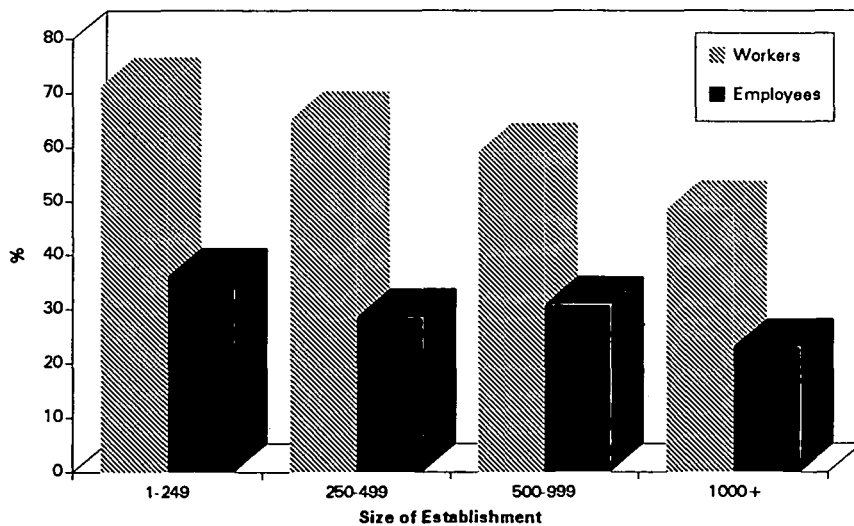


Source: RLFS3

It did not seem to vary by sector. For employees, the differential was also relatively small in joint stock enterprises and in large-scale factories with more than 1,000 workers.

One factor closely related to the emergence of a very low paid group within factories was the erosion of the level and role of the *statutory minimum wage*. During 1992-93 it was allowed to drift downwards relative to the average wage and to well

Figure 21: Lowest Wage as percent of Average Wage, by Size of Establishment, 1993



Source: RLFS3

below a level of income required for minimal subsistence.<sup>21</sup> It ceased to provide any floor of wage protection. Even so, policymakers and analysts continued to regard the minimum wage as the anchor of the wage system and of important social transfers, notably unemployment benefits and child allowances.

In the RLFS3, questions were asked about the influence of changes in the minimum wage on the average wage in the plant and on wage differentials. Nearly two-thirds of managements reported that the minimum wage did have some influence on the average wage level. Although there was little sectoral or regional differential in the perceived impact, there was a slightly greater effect in state and leaseholding establishments than in joint stock companies and in very large factories (Figure 21). Over 62% believed that changes in the minimum wage had an influence on wage differentials, with a further 3.7% being unsure.

These results were somewhat surprising, given the low level of the minimum wage. The most likely explanation is that the perception was a residual legacy of the time when the minimum wage genuinely set the tariff wage structure and when the minimum was close to the average wage. Also, through being the basis of the excess wage tax, it probably had an effect on the average wage, on wage differentials and on the **form** of remuneration. Thus, ironically it was probably the wage tax that was preventing the minimum wage from becoming a marginal factor in wage determination.

## 8. Wage Flexibility

There are various aspects of wage flexibility, the most notable being the responsiveness of wages to market and productive signals. The underlying issue is whether changes in the wage system in Russian industry are creating the basis for increased responsiveness to such signals.<sup>22</sup> A traditional complaint against wage determination based on the centralised wage tariff system was that it was rigid and thus unable to adjust to changing demand or to provide incentives to labour productivity. By 1993, that rigidity seemed to be disappearing, for there appeared to be some flexibility in the wage determination process, even if it was not closely related to incentives and productivity.

Data collected through the RLFS should help us monitor trends in wage flexibility. First, managers were asked what was the main factor that had influenced the level of their establishment's wages besides price rises. Although over 62% said no other factor had been influential, 13.6% said that rising productivity had been the main factor and 10.7% said that an extension in production had been the most important. Although other factors were mentioned, none were of widespread relevance. Thus, one could say that responsiveness to market signals was considerable, but not to productivity.

---

<sup>21</sup> T.Chetvernina, *The Minimum Wage in Russia: Fact chasing Fantasy*, CEET Paper No.5 (Budapest, ILO Central and Eastern European Team, April 1994).

<sup>22</sup> Again, there are sound theoretical arguments against extreme wage flexibility. A 'spot' labour market would produce chronic instability.

Table 8: Main Performance Criterion for Wage Determination, by Industry, 1993 (% distribution within industry)

Industry	Main Performance Criterion		
	Overall	Unit	Individual
Metals	75.0	25.0	0.0
Engineering	57.3	18.8	23.9
Food processing	69.2	23.1	7.7
Constr. materials	61.5	30.8	7.7
Textiles, garments	54.2	18.6	27.1
Chemicals	70.8	12.5	16.7
Wood & paper	62.5	21.9	15.6

Source: RLFS3

Second, according to managerial responses — and here one must be particularly cautious about speculating on the real strength of any relationship — wages were set largely by reference to collective performance rather than to individual performance, with 61.3% of managements claiming that the main criterion used to determine remuneration was the performance of the establishment as a whole, 20.5% reporting that it was the performance of the work brigade or work unit collective, and 18.1% that it was based primarily on individual performance. This pattern varied considerably by sector, with firms in the textiles and garment industry being the most inclined towards an individualised (largely piece-rated) payment system (Table 8).

There was no variation by type of property form, implying that so far commercialisation had not led to individualisation of the payment system (Table 9). This latter finding probably reflects the nature of the joint stock forms of management, in which the work collective retained a collective voice, at least in principle.

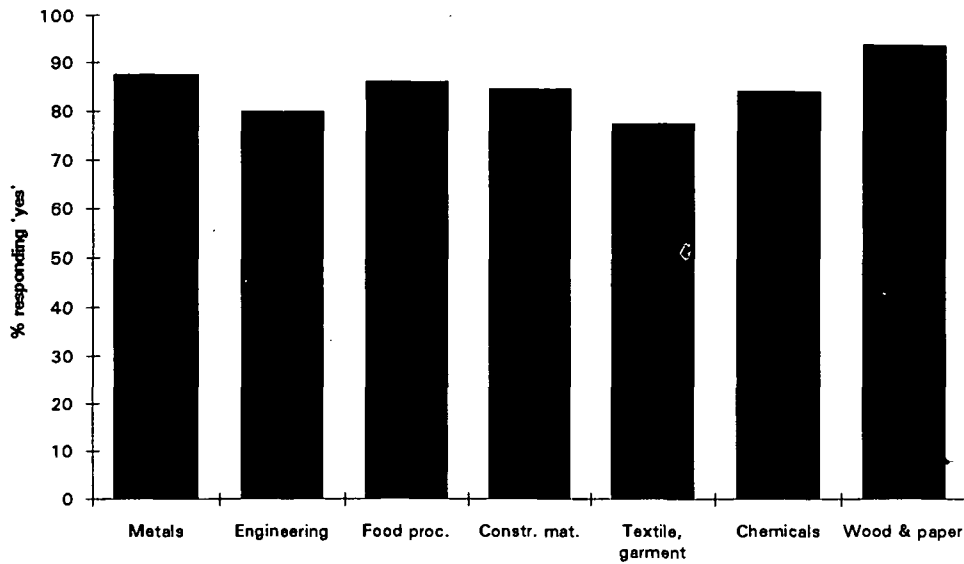
Third, the form of remuneration is also indicative of wage flexibility. In this regard, the international trend has been to move away from **fixed** wages. In Russian industry, there have been comparable trends. Thus, in 1993 most establishments provided workers with monetary 'incentives' (Figure 22). Although there may have been a slight tendency for incentive payments to decline between 1992 and 1993, this probably reflected incapacity to pay rather than any change in principle. Firms providing incentives tended to be relatively high paying, although the causal link is unclear. Whether the incentive nature of the payments was strong or weak must be a matter of speculation, and in any case many wage analysts believe that such incentive components soon become incorporated into the normal wage.

Table 9: Main Performance Criterion for Wage Determination, by Property Form, 1993 (% distribution within property forms)

Property Form	Main Performance Criterion		
	Overall	Unit	Individual
State	65.8	14.0	20.2
Leasehold	53.8	15.4	30.8
Private	50.0	37.5	12.5
Closed Joint Stock	59.1	25.8	15.2
Open Joint Stock	63.8	20.2	16.0

Source: RLFS3

Figure 22: Operated Monetary Incentive Scheme, by Industry, 1993

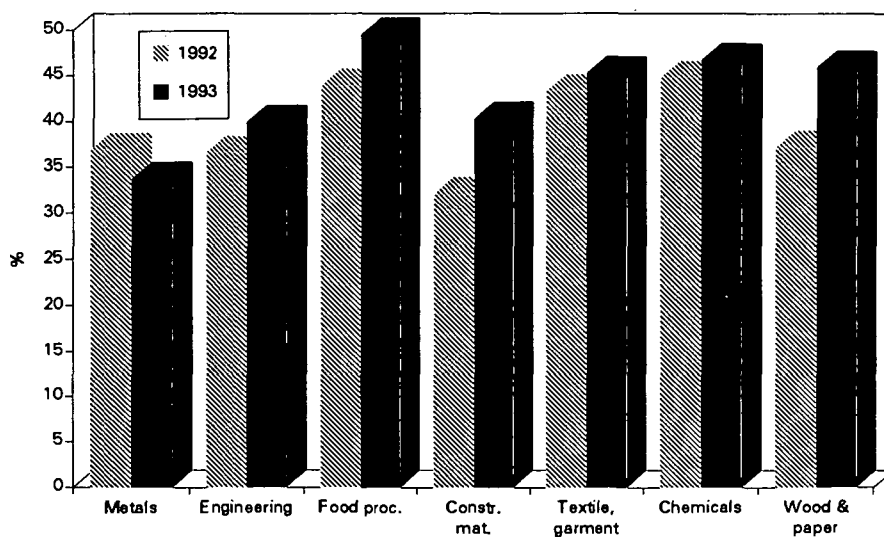


Source: RLFS3

Most establishments also paid *bonuses* of one kind or another. According to the managements, in 1992 an average of 39.5% of total wage remuneration was paid in the form of bonuses (Figures 23 and 24). There was little apparent difference between sector, size of establishment or property form of establishment. In 1993, the bonus share had risen to 43.7% on average, highlighting the fact that the wage tariff system was becoming less binding, and perhaps reflecting the impact of the tax-based incomes policy.

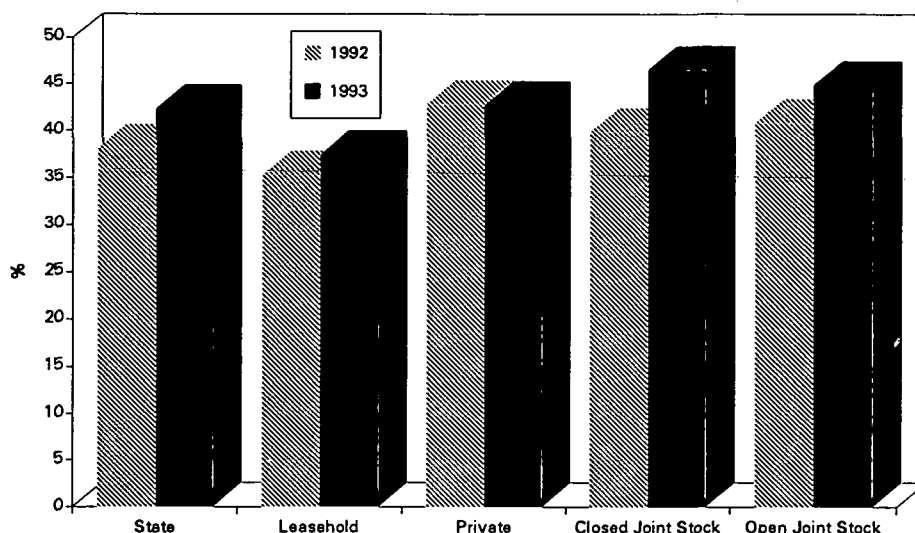
Finally, over two-thirds of establishments reported that they operated some form of 'profit sharing', with three-quarters of those in the textiles and garments sector, and about 85% of closed joint stock enterprises reporting that system. As would be expected,

Figure 23: Percent of Wages Paid in Bonuses, by Industry, 1992-93



Source: RLFS3

Figure 24: Percent of Wages Paid in Bonuses, by Property Form, 1992-93



Source: RLFS3

ted, the practice of profit sharing was linked with managements being elected by the work collective. A majority of establishments (52.2%) reported that the individual worker's profit share payment varied according to the work collective's performance, while 20.8% stated that the payment was a variable share depending on total revenue.

Tabulations suggested that, on average, firms operating some form of 'profit sharing' paid higher wages and earnings. However, this was not borne out by the regression results given earlier. We believe that profit sharing is the ultimate form of wage flexibility, and that — although profit sharing is probably a misnomer for what was involved — the depressed state of Russian industry in 1993 allowed firms with a profit sharing system to lower workers' real earnings relatively easily. Conversely, if production were to pick up, those with profit share pay should benefit sooner and by more than those on a more fixed wage system. In short, profit sharing is a risk sharing mechanism, with dangers of economic insecurity for workers to balance against the advantage of workers having a share of the establishment's profits.

## 9. Entitlement to Enterprise Benefits

Since social benefits were largely enterprise-based in the Soviet system, industrial establishments came to provide a wide array of benefits. These were distributed or operated mainly by the trade unions, and comprised a large share of total remuneration. They were 'universal benefits' in the sense that most were, in principle, an entitlement for all employees and workers, although their distribution was commonly based on discretionary decisions by managements and union officials.

There are grounds for believing that in moving away from a command economy, the system of social protection must shift out of enterprises onto the state, in the interest of social equity and efficiency. However, as of 1993, there was little evidence that the enterprise-based system was withering away. It is clear from the RLFS3 that industrial establishments were continuing to provide a broad range of benefit

entitlements, and that mainly these were entitlements for regular workers to the same extent as for managerial employees (Tables 10, 11 and 12).<sup>23</sup> Only for casual or contract labour workers were benefit entitlements restricted. This is significant, in that there is evidence that this more insecure category of worker has been and will be a growing one, as it has in most countries.

Among the patterns of benefit entitlement suggested by the statistics were:

- (i) workers and employees had a lower probability of entitlement to benefits in engineering and textiles and garments than in other sectors, in the case of most benefits; this implies that benefit distribution was accentuating inter-industrial earnings inequality, given that these were relatively low-wage sectors;
- (ii) non-regular workers had a much lower probability of receiving benefits, although they were relatively less disadvantaged in terms of sickness benefits, bonuses, subsidised food and subsidised consumer goods;
- (iii) benefits were generally less likely to be provided small-scale establishments with up to 250 workers, although beyond that size only a few of the benefits were much more likely in large-scale units, notably health services, subsidised kindergartens and access to training;
- (iv) there was little evidence that privatisation had led to any widespread erosion in the provision of benefits, and in some cases provision seemed more likely in joint stock enterprises, notably health services and subsidised food;
- (v) privatised firms were less likely to be providing subsidised housing for workers;
- (vi) the pattern of enterprise benefits could be seen as a means of accentuating socio-economic inequality, given the lack of effective social protection reform during this period.

This last hypothesis is supported by the fact that establishments in sectors paying relatively high wages tended to be providing benefits to a greater extent than those in sectors where wages were relatively low, implying that benefits were a means by which income inequality was being intensified.

One may speculate on the consequences for social protection of an effective enterprise restructuring strategy. If large-scale enterprises were broken up into smaller units, the pattern of benefits suggests that this would lead to a narrowing of the range of enterprise benefits, since most forms of benefit were less likely to be provided in those establishments with fewer than 250 workers and the cost burden was probably larger in small-scale units (Figure 26). For most benefits, the difference in probability of entitlement was small, although in some cases, such as in the provision of training opportunities and access to subsidised rent for accommodation, it was substantial.

---

<sup>23</sup>Entitlements are not necessarily the same as provisions for example an enterprise may provide loans to workers hit only under certain restrictive conditions.



Table 10a: Type of Benefits Provided for Management, by Industry, 1993

Managers	Metals	Engin- eering	Food proc.	Constr. materials	Textile, garment	Chemical- cals	Wood & paper
paid vacation	100.0	100.0	100.0	100.0	100.0	100.0	100.0
additional vacation	100.0	52.2	53.5	60.0	33.9	58.3	59.4
rest houses	62.5	61.4	82.5	66.7	68.3	75.0	75.0
sickness benefit	100.0	98.3	100.0	100.0	100.0	100.0	100.0
paid health services	71.4	56.5	56.6	56.0	52.8	69.6	44.8
subsidised rent	16.7	10.2	21.7	25.0	19.2	19.0	16.7
subsidies for kinder gardens	57.1	41.7	68.3	66.7	52.6	50.0	53.3
bonuses	75.0	83.3	87.7	88.5	80.6	83.3	93.8
profit sharing	87.5	58.9	81.4	66.7	77.0	77.3	67.7
loans	100.0	90.0	92.3	84.6	93.5	92.0	100.0
retirement assistance	100.0	73.5	81.7	79.2	87.5	76.0	90.3
supplementary pension	40.0	8.0	14.6	26.3	6.7	19.0	9.7
possibility for training	85.7	74.1	80.6	72.0	85.0	87.5	68.8
subsidised food	83.3	27.6	60.7	65.2	23.9	31.8	40.6
subsidy for canteen or benefit for meal	71.4	64.3	83.3	75.0	64.8	86.4	46.9
subsidised consumer goods	50.0	21.6	33.3	38.1	26.1	30.0	12.9
transport subsidies	66.7	42.6	38.0	45.0	43.4	23.8	31.3

Table 10b: Type of Benefits Provided for Regular Workers, by Industry, 1993

Regular Workers	Metals	Engin- eering	Food proc.	Constr. materials	Textile, garment	Chemical- cals	Wood & paper
paid vacation	100.0	100.0	100.0	100.0	100.0	100.0	100.0
additional vacation	100.0	75.4	70.7	80.0	58.6	83.3	75.0
rest houses	62.5	61.4	82.5	66.7	68.3	75.0	75.0
sickness benefit	100.0	98.3	100.0	100.0	100.0	100.0	100.0
paid health services	71.4	56.5	58.5	56.0	52.8	69.6	48.3
subsidised rent	16.7	12.2	23.9	25.0	23.1	22.7	16.7
subsidies for kinder gardens	57.1	42.6	68.3	66.7	54.4	54.2	53.3
bonuses	75.0	83.3	87.7	88.5	79.0	83.3	93.8
profit sharing	87.5	58.9	81.4	66.7	77.0	72.7	67.7
loans	100.0	90.0	92.3	84.6	93.5	92.0	100.0
retirement assistance	85.7	74.4	81.7	79.2	87.5	80.0	90.3
supplementary pension	66.7	8.0	14.6	26.3	6.7	19.0	6.5
possibility for training	85.7	75.2	83.9	80.0	83.6	95.8	71.9
subsidised food	83.3	27.6	62.3	65.2	24.4	31.8	40.6
subsidy for canteen or benefit for meal	71.4	66.1	83.3	76.0	64.8	90.9	46.9
subsidised consumer goods	50.0	21.6	33.3	38.1	26.1	30.0	12.9
transport subsidies	66.7	43.0	40.0	47.4	45.3	23.8	28.1

Table 10c: Type of Benefits Provided for Non-Regular Workers, by Industry, 1993

Non-Regular Workers	Metals	Engin- eering	Food proc.	Constr. materials	Textile, garment	Chemi- cals	Wood & paper
paid vacation	33.3	38.5	37.9	42.3	57.1	50.0	45.2
additional vacation	20.0	15.1	7.5	20.0	9.4	4.8	9.7
rest houses	0.0	13.2	11.1	8.7	12.7	20.0	3.2
sickness benefit	83.3	69.4	60.3	61.5	80.7	81.8	75.0
paid health services	40.0	26.5	22.4	12.5	26.5	15.8	13.8
subsidised rent	0.0	3.2	4.3	5.0	4.1	0.0	6.7
subsidies for kinder gardens	0.0	14.9	18.9	13.0	15.4	4.8	12.9
bonuses	66.7	45.1	49.1	56.0	47.4	38.1	53.1
profit sharing	66.7	21.9	19.6	26.1	21.8	10.5	20.0
loans	66.7	26.1	26.3	19.2	32.1	27.3	19.4
retirement assistance	20.0	13.9	11.8	8.7	21.6	13.6	10.0
supplementary pension	16.7	1.0	0.0	5.3	2.3	0.0	0.0
possibility for training	33.3	22.6	18.9	20.8	27.3	20.0	21.9
subsidised food	80.0	18.6	43.6	43.5	16.3	25.0	31.3
subsidy for canteen or benefit for meal	66.7	47.1	58.8	60.0	42.0	47.6	31.3
subsidised consumer goods	40.0	14.3	20.8	19.0	22.7	27.8	12.9
transport subsidies	60.0	21.2	28.3	20.0	18.4	5.6	15.6

Source: RLFS3

Table 11a: Type of Benefits Provided for Management, by Size of Establishment, 1993

Managers	1-250	251-500	501-1000	1001+
paid vacation	100.0	100.0	100.0	100.0
additional vacation	44.9	56.3	56.1	54.4
rest houses	50.9	74.2	77.2	87.0
sickness benefit	100.0	97.9	100.0	100.0
paid health services	41.3	53.8	61.5	78.5
subsidised rent	8.4	24.0	17.0	19.3
subsidies for kinder gardens	40.4	57.0	52.7	66.7
bonuses	81.0	89.5	79.7	89.9
profit sharing	65.5	70.7	78.6	70.1
loans	86.3	93.7	98.3	94.2
retirement assistance	73.0	87.9	82.7	80.9
supplementary pension	11.6	11.9	10.9	12.9
possibility for training	66.4	83.3	75.0	92.8
subsidised food	31.2	46.8	47.9	38.7
subsidy for canteen or benefit for meal	54.6	76.8	71.7	77.8
subsidised consumer goods	15.5	32.9	27.7	32.8
transport subsidies	32.3	54.4	37.3	35.5

Table 11b: Type of Benefits Provided for Regular Workers,  
by Size of Establishment, 1993

<b>Regular Workers</b>	1-250	251-500	501-1000	1001+
paid vacation	100.0	100.0	100.0	100.0
additional vacation	62.7	77.3	77.2	81.2
rest houses	50.9	74.2	77.2	87.0
sickness benefit	100.0	97.9	100.0	100.0
paid health services	43.3	53.8	61.5	78.5
subsidised rent	9.5	24.0	19.1	25.9
subsidies for kinder gardens	40.4	59.3	52.7	68.2
bonuses	81.0	89.5	78.0	89.9
profit sharing	65.5	69.5	78.6	70.1
loans	86.3	93.7	98.3	94.2
retirement assistance	73.9	89.0	82.7	79.4
supplementary pension	10.5	11.9	12.8	14.5
possibility for training	69.3	84.6	80.4	92.8
subsidised food	31.2	48.1	47.9	39.3
subsidy for canteen or benefit for meal	55.6	78.0	71.7	79.7
subsidised consumer goods	15.5	32.9	27.7	32.8
transport subsidies	32.3	54.4	36.0	39.3

Table 11c: Type of Benefits Provided for Non-Regular Workers,  
by Size of Establishment, 1993

<b>Non-Regular Workers</b>	1-250	251-500	501-1000	1001+
paid vacation	47.7	41.2	38.9	44.4
additional vacation	7.1	8.6	15.1	21.0
rest houses	6.1	9.6	7.8	27.0
sickness benefit	68.9	71.6	70.4	74.2
paid health services	15.8	17.8	20.4	42.6
subsidised rent	4.4	4.1	2.2	3.5
subsidies for kinder gardens	9.5	11.3	13.7	26.2
bonuses	43.4	46.1	41.5	64.1
profit sharing	22.3	20.3	26.0	20.6
loans	29.0	23.3	21.2	33.8
retirement assistance	19.0	13.6	6.3	14.5
supplementary pension	2.2	1.5	2.2	0.0
possibility for training	15.8	22.5	23.1	33.8
subsidised food	22.8	28.0	33.3	33.3
subsidy for canteen or benefit for meal	37.1	50.6	48.0	60.9
subsidised consumer goods	13.2	19.7	17.8	25.4
transport subsidies	18.9	27.0	10.4	24.1

Source: RLFS3

Table 12a: Type of Benefits Provided for Management,  
by Property Form, 1993

<b>Managers</b>	<b>State</b>	<b>Leasehold</b>	<b>Private</b>	<b>Closed Joint Stock</b>	<b>Open Joint Stock</b>
paid vacation	100.0	100.0	100.0	100.0	100.0
additional vacation	52.3	34.6	50.0	55.6	54.5
rest houses	64.7	74.1	69.0	70.3	74.4
sickness benefit	100.0	100.0	100.0	98.5	98.9
paid health services	51.0	55.6	44.4	59.7	63.2
subsidised rent	14.9	24.0	16.7	15.8	15.1
subsidies for kinder gardens	47.2	30.8	66.7	50.0	62.8
bonuses	86.6	81.5	84.4	81.5	86.3
profit sharing	53.2	74.1	90.0	88.7	69.7
loans	86.6	96.3	87.5	97.0	95.8
retirement assistance	79.6	74.1	77.8	82.8	82.2
supplementary pension	9.6	24.0	12.5	9.4	12.2
possibility for training	78.1	66.7	75.0	74.2	84.8
subsidised food	26.7	40.7	34.6	49.2	48.8
subsidy for canteen or benefit for meal	60.2	64.0	50.0	71.7	82.8
subsidised consumer goods	20.0	20.0	32.0	26.3	32.9
transport subsidies	38.0	30.8	37.0	43.3	43.6

Table 12b: Type of Benefits Provided for Regular Workers,  
by Property Form, 1993

<b>Regular Workers</b>	<b>State</b>	<b>Lease-hold</b>	<b>Private</b>	<b>Closed Joint Stock</b>	<b>Open Joint Stock</b>
paid vacation	100.0	100.0	100.0	100.0	100.0
additional vacation	73.2	65.4	65.6	71.4	78.9
rest houses	64.7	74.1	69.0	70.3	74.4
sickness benefit	100.0	100.0	100.0	98.5	98.9
paid health services	52.1	55.6	44.4	59.7	64.4
subsidised rent	17.9	24.0	20.8	17.5	16.4
subsidies for kinder gardens	49.1	34.6	66.7	50.0	62.8
bonuses	85.7	81.5	84.4	81.5	86.3
profit sharing	53.2	74.1	86.7	88.7	69.7
loans	86.6	96.3	87.5	97.0	95.8
retirement assistance	79.6	77.8	74.1	82.8	83.3
supplementary pension	10.5	20.0	12.5	9.4	13.5
possibility for training	78.3	70.4	78.1	75.8	89.2
subsidised food	26.7	40.7	34.6	49.2	50.6
subsidy for canteen or benefit for meal	61.5	72.0	50.0	71.7	82.8
subsidised consumer goods	20.0	20.0	32.0	26.3	32.9
transport subsidies	39.4	30.8	38.5	43.3	43.6

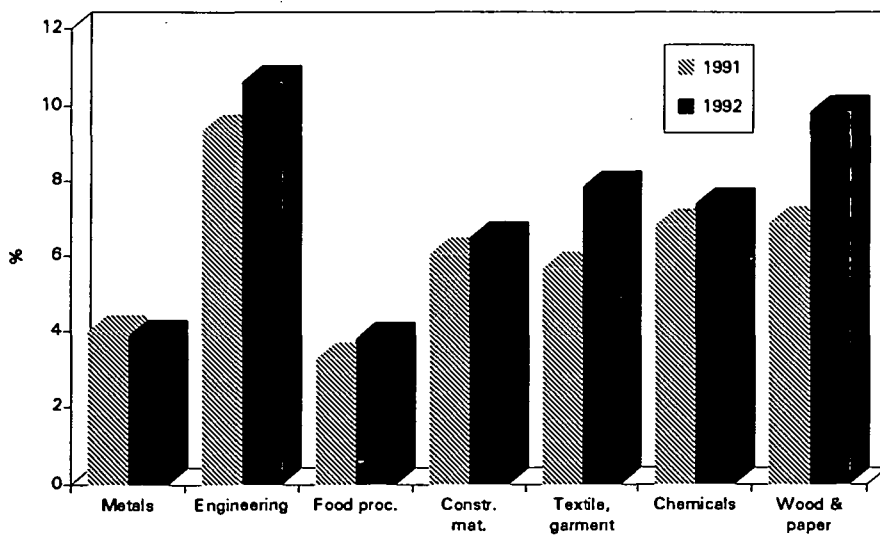
Table 12c: Type of Benefits Provided for Non-Regular Workers, by Property Form, 1993

Non-Regular Workers	State	Lease-hold	Private	Closed Joint Stock	Open Joint Stock
paid vacation	46.8	41.7	53.6	40.7	39.8
additional vacation	12.0	4.2	10.7	12.3	14.1
rest houses	12.5	4.2	11.5	9.1	15.3
sickness benefit	71.2	58.3	64.3	73.3	74.4
paid health services	17.4	12.5	12.5	35.7	26.8
subsidised rent	4.3	4.5	4.3	7.5	0.0
subsidies for kinder gardens	11.2	8.7	21.4	12.5	18.5
bonuses	42.2	16.7	48.3	52.6	59.8
profit sharing	14.9	12.5	29.6	30.4	24.4
loans	19.4	12.5	34.5	38.6	30.8
retirement assistance	14.7	8.3	16.7	16.4	14.1
supplementary pension	3.3	0.0	0.0	2.0	0.0
possibility for training	22.3	12.5	11.1	28.6	26.4
subsidised food	18.6	20.8	16.7	36.4	38.8
subsidy for canteen or benefit for meal	38.6	31.8	29.6	53.6	65.1
subsidised consumer goods	14.1	9.1	29.2	18.5	23.0
transport subsidies	17.2	8.7	24.0	22.2	26.7

Source: RLFS3

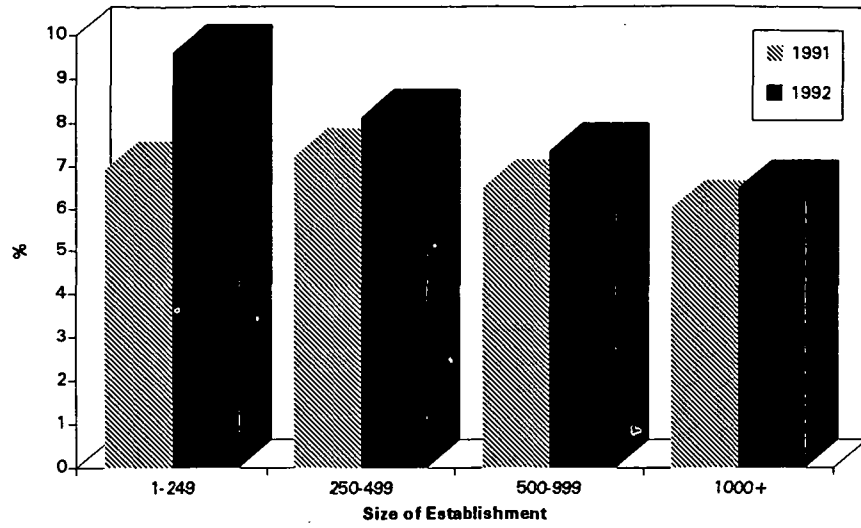
However, benefits may be cut in value terms if the enterprise restructuring involved both size restructuring — breaking up large establishments into leaner units — and a shift to a joint stock company, since it seemed that the share of production costs devoted to social expenditure was highest in state enterprises and had risen the most in those factories, compared with those that had restructured in property terms (Figure 27). This may be a reflection of the type of enterprise that had restructured or may reflect some behavioural change associated with restructuring. We believe it reflects the influence of both factors..

Figure 25: Social Cost Share of Production Costs, by Industry, 1991-92



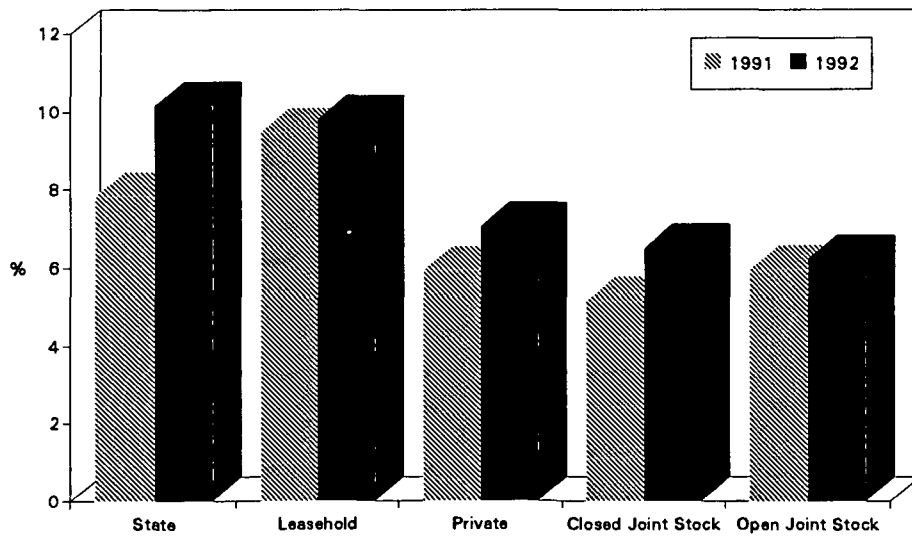
Source: RLFS3

Figure 26: Social Cost Share of Production Costs, by Employment Size, 1991-92



Source: RLFS3

Figure 27: Social Cost Share of Production Costs, by Property Form, 1991-92

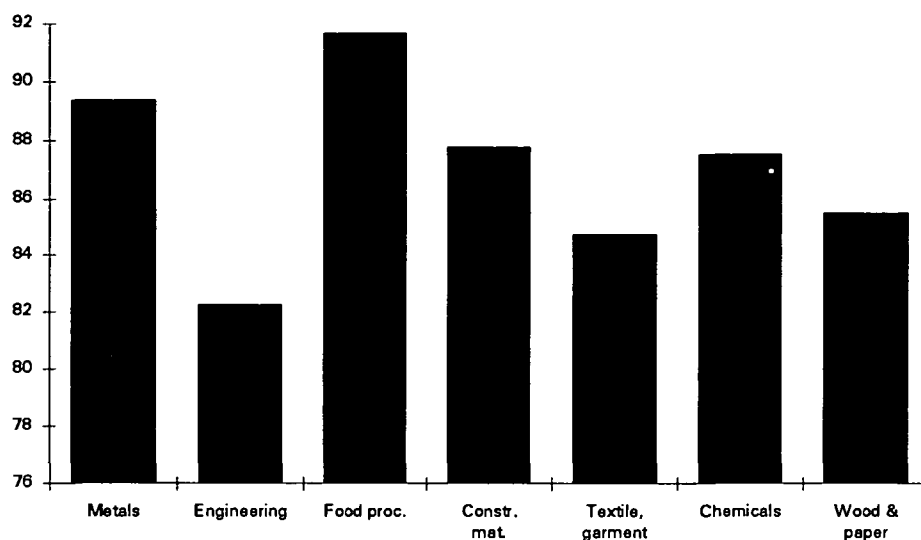


Source: RLFS3

## 10. Unions, Collective Agreements and Wages

Russian industry remains highly unionised in a formal sense, although it has been very hard to tell whether large numbers of workers feel a strong allegiance to their union. According to the RLFS3, in manufacturing industry on average 85.8% of workers were members of unions, with some variation between sectors (Figure 28). Unionisation tended to be higher in large-scale firms, but there was no conspicuous difference between types of property form of establishment.

Figure 28: Percent of Workers Unionised, by Industry, 1993



Source: RLFS3

Although the subject deserves a separate paper, and although one should not put too much faith in the estimates of the level of unionisation, the inter-establishment variation in level of unionisation of the workforce was examined by a regression function, as follows:

$$\log.TU = a + b_1\Sigma(IND) + b_2(EMPSIZE) + b_3\Sigma(PROP) + b_4\Sigma(REG) + b_5(\%BC) + b_6(\%EMPCHG) + e$$

where  $\log.TU$  is the logarithm of the percent of workers belonging to a trade union, and the dependent variables are as for earlier regressions.

The results, given in Table 13, suggest that while the amount of variance explained by the equation is small, unionisation was relatively high in the food processing, construction materials, wood products and engineering sectors — which were a mix of higher-paying and lower-paying sectors — and was higher if the share of manual workers in total employment was high. There was some suggestion that unionisation was higher in large-scale establishments, which is the usual pattern internationally, and it was higher in closed joint stock enterprises than in state or other forms of enterprise.

Table 13: Log Percent of Workers Unionised, 1993

Variable	Log. % Unionisation
(Constant)	1.7631
<b>Industry</b>	
Metals	0.0231
Engineering	0.0452 *
Food proc.	0.0488 *
Constr. Mat.	0.0631 **
Chemicals	0.0046
Wood & paper	0.0489
<b>Property Form</b>	
Leasehold	-0.0098
Private	0.0015
Closed Joint Stock	-0.0643 ***
Open Joint Stock	-0.0147
<b>Region</b>	
Moscow Region	0.0616 **
St. Petersburg	0.0080
Nizhni Novgorod	0.0181
Emp. Size	0.000008
% Manual Workers	0.0019 *
% Sales Change 92-93	0.00001
% Emp. Change 92-93	-0.00005

R2 = 0.1005

F = 1.9067

Source: RLFS3

Most establishments reported having a *collective agreement* of some sort, and a few had several — 88.8% were operating an enterprise-level agreement, 2.7% reported that they had one at the Ministerial or sectoral level, and 9.7% reported that they had not reached an agreement at the time of the survey.

Whether or not one believes such agreements were meaningful in the sense of having involved real collective bargaining, most covered a wide range of issues. Table 14 shows that almost all covered wage rates, bonuses, fringe benefits and working time, and that a majority also covered dismissal procedures, norms for output performance and internal job mobility.

If one looks at the period when such agreements were signed, it appears that agreements on **wage rates** had become more central to such agreements since 1990 (Table 15). Not too much should be read into that finding, since the number having last contracted in 1990 was small, and there may have been intervening factors that influenced the observed pattern. However, there is anecdotal evidence that wage bargaining may have gained in importance as an issue of collective agreements in the



recent period of economic reform. What is clear from the earlier results is that as of 1993, unions had yet to exercise an influence on wages, and this was unlikely to be operating as a vehicle for dynamic efficiency.

Table 14: Issues Covered by Collective Agreement, by Property Form, 1993

Issue	State	Lease-hold	Private	Closed JS.	Open JS.
Wage rates	93.5	91.7	85.7	87.9	92.1
Bonuses	91.6	87.5	82.1	91.4	88.8
Benefits	95.3	100.0	96.4	98.3	100.0
Working time	88.7	100.0	92.9	93.2	100.0
Dismissals	69.5	83.3	75.0	73.7	83.9
Job mobility	37.1	70.8	50.0	49.2	65.9
Promotion	26.9	45.8	28.6	24.1	32.6
Output norm	51.9	54.2	75.0	50.0	56.8
Release	43.8	45.8	53.6	41.4	57.3

Source: RLFS3

Table 15: Issues Covered by Collective Agreement, by Year of Last Collective Agreement, 1993

Issue	1990	1991	1992	1993
Wage rates	50.0	85.7	90.4	93.7
Bonuses	100.0	92.9	96.3	87.9
Benefits	100.0	100.0	96.4	99.5
Working time	50.0	92.9	94.0	96.1
Dismissals	50.0	57.1	78.8	77.8
Job mobility	50.0	35.7	53.1	53.2
Promotion	0.0	14.3	34.6	29.4
Output norm	0.0	64.3	59.3	54.7
Release	50.0	42.9	46.9	49.8

Source: RLFS3

## 11. Concluding Remarks

This paper has tried to do no more than provide a broad picture of the evolving wage pattern in Russian industry, and it is appropriate to conclude by noting that although the RLFS3 made great effort to solicit correct and thorough data on wages and earnings, one should be cautious about the accuracy of the data. An abuse of statistics and a desire to conceal from the authorities were features of the old system, and there are reasons for believing that official labour statistics suffer from many shortcomings, particularly in certain sensitive areas, including wages.

When asked to indicate what was the main cause of low labour efficiency, only 8% of managements cited low wages, behind inadequate supplies of materials (23.4%), poor equipment (18%) and difficulty of selling the output (18%).<sup>24</sup> And only 10.7%

<sup>24</sup> Low wages were much more likely to be cited in state enterprises and in smaller establishments; poor equipment was most often the main reason cited in the smaller establishments, while inadequate

gave low wages as the second main factor. This seemed to symbolise the lack of a perception of any link between wages, incentives and productivity, which should be a key issue in efforts to reform the wage system. Nevertheless, wages are more flexible than is widely believed and are not rigidly based on the wage tariff system. And whatever the perceived cause of low labour efficiency, the main means of trying to raise it was to raise wages — according to 44% of the managers.

The picture that emerges from the RLFS3 is that wages had become somewhat responsive to market forces, wage differentials had widened and earnings differentials had widened even more, and wage flexibility had become potentially considerable. This combination of developments provided evidence to support the view that, whatever the number of Presidential Decrees and other regulations issued, by 1993 the Russian labour market had become flexible and was also operating to accentuate inequalities.

One implication of the emerging flexibility is that wage taxes and wage regulations will be ineffectual, and are likely to have perverse effects, adding new forms of distortion. Another implication is that the most promising form of wages policy, in terms of efficiency and equity, would be one based on multi-layered collective bargaining, as long as that is conducted by independent trade unions and employers and that it goes with a wholesale restructuring of the large-scale enterprises that in 1993-94 still dominated the industrial landscape. In both respects — independent collective bargaining and enterprise restructuring — there was a long way to go.

---

supplies was the most common in large-scale firms. Incidentally, the main forms of labour inefficiency were low work intensity, periodic work stoppages and high labour turnover.

Additional figures and tables:

Figure 29: Ratio of Managerial Wages Compared to Unskilled Workers, by Operating a Profit Sharing System, 1993

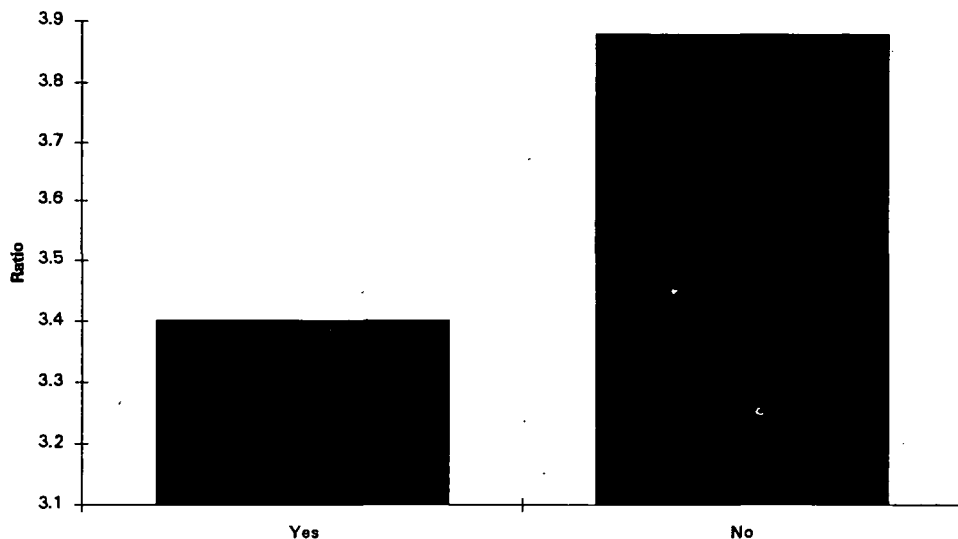


Table 12: Main Performance Criterion for Wage Determination, by Method of Selecting Director, 1993

Performance Criterion	Ministry	Enterprise board	Workers	Local authorities	Other
Overall	71.7	58.3	58	65.5	60.9
Unit	11.7	27.8	21	24.1	21.7
Individual	16.7	13.9	21	10.3	17.4