

# The deformation of the structure of industrial employment in Russia

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If the State Statistics Committee's figures are to be trusted, employment in industry (PPP, the Russian acronym from *pro-myshlenno-proizvodstvenny personal*) was just over 11 million persons at the end of 1996, a reduction by almost one-half, by comparison with the pre-reform period. (The year 1988 is taken as the base year, since it was a stable year, as well as the year of complete transition to the new economic mechanism.)

Tracing the changes in employment of PPP in the basic sectors of industry, we can see that it fully reflects the peculiar crisis processes that have accompanied the reform of our economy (**Figure 1**).

The greatest numerical growth is observed in the natural gas industry (164%). This counts only those working directly in the natural gas industry, since, if acquired and newly constructed infrastructure is included, employment there has grown threefold. The intensified growth of this employment began in 1992, and the rate of growth accelerated, beginning in 1994, comprising 10 to 11% of annual new PPP employment. There was especially rapid growth of the administrative apparatus, at rates of increase higher than those for workers and specialists.

Does the growth of output in the natural gas industry correspond to this increase in PPP employment? Only [Gazprom President] Rem Vyakhirev can answer that question.

In the electric power industry, employment grew by nearly one-third, as [First Deputy Premier Boris] Nemtsov has remarked, and this growth of employment, simultaneous with a decline of output, is a precedent to be analyzed.

Similar problems, evidently, have arisen in the oil industry. There, the increase in employment is primarily due to an enlargement of the administrative apparatus (including the creation of various structures to service the financial flows of share societies, marketing services, and so forth).

There has been a significant exodus of employees from the processing and manufacturing sectors.

In textiles and light industry, almost 65% of the operatives

have left; mass layoffs have occurred in machine building, where only 45% of the production personnel remains. At the level of individual subsectors, the situation is significantly worse: In the machine-tool and instrument industry, a scant third of the workforce is still employed.

The only exception is the automobile industry.

There has been a profound deformation in such sectors as the timber and wood-processing industries (40% remain employed), printing, the food industry, and construction materials industry (46%).

Thus, we can say that the dynamics of employment, like the investment process, have come to stand on "raw materials legs." The growth of employment in the raw materials sectors, however, has by no means absorbed the workers from other sectors. The relative significance of employment in these sectors is so small, and the nature of their production process so complex, that even a highly qualified operative from another sector cannot enter the electric power or oil-refining industry, without special training.

The labor force employed in this type of manufacturing, requires not only higher or specialized technical education, but, in part, the mastery of modern computer technology.

The natural gas and oil sectors, like electric power, employ a relatively low number of personnel, and have many automated processes. These are capital-intensive types of manufacturing, with a relatively low number of employees.

In the stable, pre-reform years, the employment of PPP in the natural gas industry was only 0.1% of all PPP; in the oil industry, 1%; and in the electric power industry, 2%.

Meanwhile, 50% of total PPP employment was in the machine-building sectors; adding employment in light industry, textiles, and the wood-processing industries, their combined share of PPP comprised over 70% of the total. Therefore, the labor force laid off from the manufacturing sectors could not shift over to the raw materials sectors, since the relative importance of these two groups of sectors is too disparate—70% vs. 3.1%. Nonetheless, 11 million persons have left industry.

It must be noted, that the employment situation in these various sectors is extremely difficult at present.

But, is this "unemployment," or some other phenomenon? In our view, the mass exodus of personnel should be considered a social catastrophe. The roots of this phenomenon lie in

FIGURE 1

**Changing industrial employment in Russia (1996 as a percentage of 1988)**

(1996 industrial employment as percentage of 1988 industrial employment)

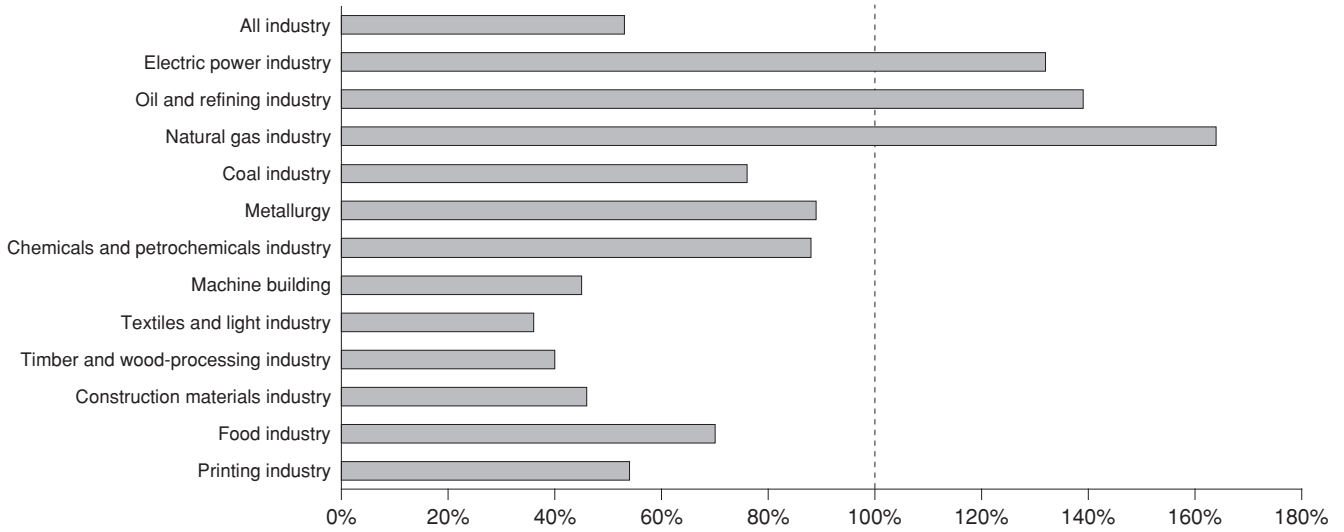
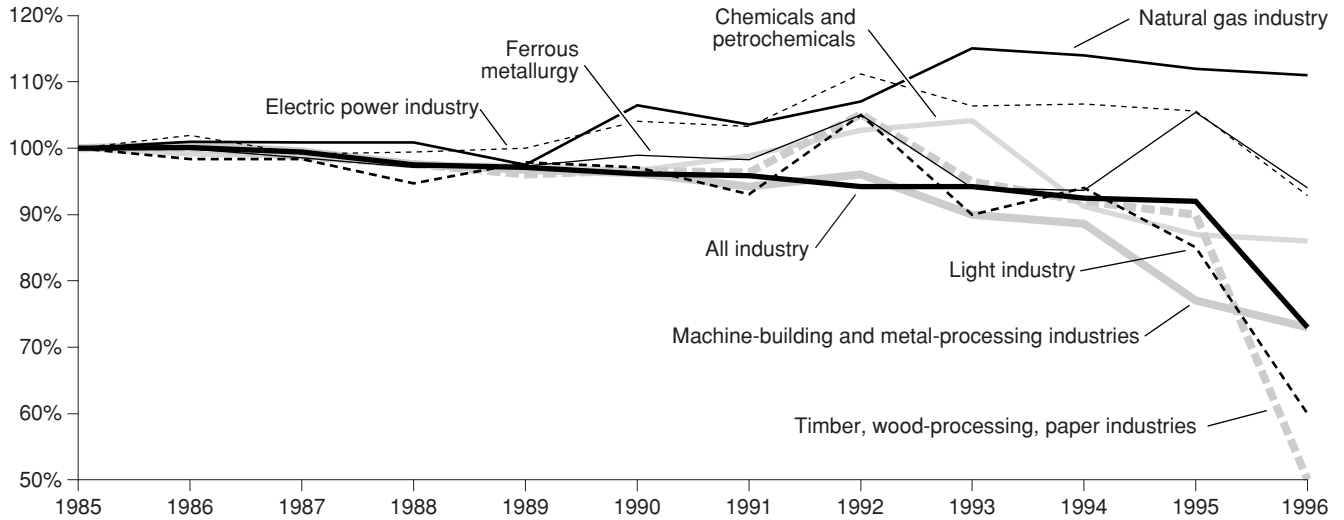


FIGURE 2

**Annual rates of change in industrial employment for sectors of industry, 1985-96**

(PPP employment, expressed as percentage of the preceding year)



the former economic system. According to the temporary ups and downs of the condition of the economy, these processes would either be aggravated, or would level out.

Then, the rapid growth of crisis processes (resulting from an ill-considered policy) led to avalanche-style layoffs (Figure 2).

This may be clearly seen, from the annual rates of change in employment, where it is starkly apparent, that the dynamics of industrial employment have always been characterized by large-amplitude fluctuations. These were basically linked with individual motivation, and the possibility for a person to improve his situation, working in production. Thus, the

reasons compelling people to leave work were not linked with technological changes or changes in labor.

### **Layoffs began in the 1980s**

The first significant layoffs took place in 1986-88, when production cooperatives were created, under the new economic mechanism. At that time, the first to leave work were technical specialists, designers, and middle-level management, who had extremely low wages. We can date the loss of technically skilled cadre, from this period. It was mainly due to the undervaluation of specialists' labor. In all, 8% of the total personnel employed at enterprises was lost.

Layoffs intensified in the second half of 1989 and early 1990, for the same reason: low wages, under conditions of growing intensification. There was a mass exodus, primarily of skilled workers and specialists. Most of them left for enterprises outside the state sector, where they could earn more. The exodus reached 15-16%.

Thus, on the eve of the reforms, socially negative processes in the area of the departure of personnel from industry, for reasons of motivation, were in full swing.

The transition to a market system should, it would seem, have created the economic conditions for adequate earnings.

The administrative system of management at enterprises was too inert, to assimilate the new ideology of economic relations.

### **No real market**

Moreover, there was no real advance to a market economy. Neither deregulation, nor privatization, changed the situation. The old technologies, which were preserved, required the same number of working hands, as before. It was only the growth of limitations on demand and the tightening of financial conditions, that forced enterprises to reduce the number of employed. Many directors, however, attempted to postpone mass layoffs to a later period, expecting improvement of the situation in the country. During the first three years of the reforms, only 10% of employed PPP left the enterprises. The main layoffs were at defense plants, due to the curtailment of military orders. It was preferred to lay off specialists, attempting to retain the skilled workers.

At many enterprises, instead of laying off employees, they preferred to reassign them, reducing the number of vacancies, letting people retire without replacing them, and so on. The enterprises were unable to effect radical economic changes.

The state's attempts to force the transformations, through taxation, backfired with the reduction of profits, and expansion of barter.

Instead of competing manufactures, the state ended up with semi-legal manufactures, and financial flows in the shadow economy. The problems of the workers' interests were left unsolved. The preservation of the old labor valuation system at both state and joint-stock company enterprises, with constant delays in the payment of wages or their payment in

kind, ultimately became the main sources of crisis processes among enterprise personnel. These processes began at the end of 1994, and reached their height in 1995-96. In 1996 alone, 6 million persons left industry. Two million of them became unemployed, while the rest took up independent economic activity and private business (the "shuttle" business [as couriers for imported consumer goods], trading on the street, etc.).

In attempting to analyze the causes of today's avalanche of unemployment, many researchers do not even make reference to a phenomenon that arose in 1990-91 at industrial enterprises.

But it was in precisely that period, contrary to the projection of 8 to 13 million people being released, that the opposite occurred. There was an unprecedented influx of personnel into the enterprises. Unfortunately, for conjunctural reasons, this is not remembered. Basically, there was propaganda about "expected" unemployment. At many civilian machine-building firms, a point of personnel saturation, by comparison with previous periods, was reached.

Furthermore, layoffs ceased. Hirings were double or triple the level of firings. It was absurd.

The cessation of departures from employment could be explained by "expectations" of receiving [ownership] shares [in the companies, as they were privatized]. But our research yields a somewhat different conclusion.

### **Survivability**

It was the rise in wages and social benefits, that significantly affected this watershed in labor mobility. These services were more reliable at state enterprises, than in the cooperatives. This period of time could be called the beginning of a new turn in economic activity, for the enterprises. The economic freedom, embodied in the "Law on Enterprises in the U.S.S.R.," put them on an equal footing with the cooperatives and opened the pathway to enrichment.

The avalanche-style unemployment that society is experiencing today, was the result of the ill-considered nature of the reforms, and the deep social crises, associated with the utilization of labor, preservation of old administrative traditions in the management system, and so forth.

Most enterprises, despite total collapse, have not yet taken decisive measures to change their situation, preferring to await changes in the economic situation. Research shows that, if some enterprises have had to master new types of activity, in order to survive, these are viewed as temporary, or secondary. Their strategic line of development remains oriented to their previous specialization, often at the cost of survivability. Therefore, many of them are counting on consuming, if necessary, their previous manufacturing capacities down to the bone. New technologies, according to the experts, are expensive, and the enterprises lack the means to train specialists. If, despite such calculations, it becomes necessary for there to be a fundamental change of technologies, then truly avalanche-style unemployment, as opposed to today's "sluggish" vari-

ety, still lies ahead. Now, however, the enterprises lack the economic reserves they had in 1991.

The mass layoffs, which have occurred in the manufacturing sectors, exerted a destructive effect on such sectors as instrument-building, machine tools, radioelectronics, precision machine building, etc. Over 2 million persons have been let go from these sectors, of whom over 60% were specialists and managers, and 40% workers.

In heavy machine building, however, there has been a higher rate of layoffs of workers. This is evidently due to the higher portion of specialists, in the science-intensive sectors. Moreover, there were substantial layoffs (beginning in 1993) in the defense complex and aircraft industry. The mass closing of plants led to a destruction of the production and labor potential.

### **The example of Moscow**

Research in the city of Moscow (35 factories and organizations) shows that, during the reform period, they have all had to reduce the number of employees.

At five major aircraft factories, which previously employed more than 10,000 people, 40-90% of the workforce has been laid off.

Enterprises in the radioelectronic industry have reduced employment by 67-80%. At one firm, things reached a critical point: One order could not only not be fully produced, but could not even be taken to the working model stage.

Investigation shows that the laid-off personnel are of prime working age (29 to 45 years), primarily with higher or specialized secondary education, and in large part are comprised of technical specialists, designers, and managers. Their wages were below the cost of the minimum subsistence market basket.

The financial situation of the enterprises was inadequate to provide a normal level of wages, due to the rising cost of necessities, resulting from the growth of prices for electricity, water, transportation, and fuel.

Thus, among the main reasons for the exodus of operatives from enterprises, two may be singled out: low wages, and the shutdown of the plants.

It should be noted, that the processes observed at these Moscow enterprises, are typical for the defense and civilian enterprises we have studied in other regions (Ivanovo, Vladimir, Yaroslavl, Novgorod Provinces, and others), with the difference, that it is easier for Muscovites to find work in other organizations, or to provide for themselves by independent economic activity. This is more difficult to do, for workers who have left enterprises in other provinces, or in small industrial cities, where the shutdown of major enterprises has simply become a national disaster.

The laid-off workers, who have become unemployed or have gone to work in the "shuttle" trade, are primarily former specialists, or skilled workers who had specialized to some extent.

### **The sources of revenue**

Today, our government is more concerned about how to impose all sorts of tariffs on the "shuttlers," so that they might bring more revenue to the treasury. The last thing the government or the regional authorities are thinking about, is that in those people who are forced to engage in trade, invested capital is going to waste (funds spent, knowledge, human abilities).

While equipment for production may be purchased, installed, and tested at will, it takes several years to restore spent cadre potential. A lost generation of scientists is another question, altogether—a matter of decades.

At the same time, we should note problems, associated with the qualitative condition of the labor force, at enterprises that are functioning.

First of all, it must be stressed, that mostly older people remain in the jobs that do exist.

Research at several Moscow enterprises (approximately one-third of them) shows that the average age is over 50 years. In other provinces, the aging of the collectives was determined by specialization and wages (the lower the wages, the older the collective), as well as the degree of crisis at the relevant enterprises.

At machine-building enterprises, the average age is 55-58 years, and in some shops the only workers left are from 50 up to 72-75 years of age—almost all of them, of pensionable age. There are younger collectives remaining at enterprises in the chemicals, transport, electric power, machine-building, electrotechnical, and automobile industries. Wages are higher in these sectors, and wage delays are fewer. All of these enterprises, however, suffer from worn-out equipment, obsolete technologies, an overbloated management structure, and wasteful economy.

The problem of a new, young generation of operatives is urgent for all. What young person will come to work at a factory, where the pay is a pittance, and the equipment dates from his grandfather's time?

Our data show, that not even high wages will hold the young people, if there are poor work conditions at the enterprises.

At the Tushinsky reinforced concrete factory, there is 100% personnel turnover, despite a high and stable wage level. The main reason young people leave, is the physically difficult work conditions.

Research at Moscow-area machine-building and machine-tool factories, on the assimilation of young workers sent there by the employment service, shows that one-third leave during the first two weeks, approximately half during the first two months, and the rest within a year. Some cannot sustain the pace of factory work, others physically cannot handle the work, and practically none is satisfied with the pay.

As is the case for an industrial recovery, the problem of a new generation of workers will require, alongside solving the problems of enterprise reconstruction and labor compensation, a solution to problems of adapting young workers to the

production process, beginning with the creation of “careers of the future,” retraining periods, etc. In other words, labor and earning at jobs that today are practically forgotten, or non-existent, must be made attractive. Fearsome publications about hidden unemployment becoming overt, and prognoses on the collapse of the economy, have convinced labor specialists that work in this area is pointless.

Nonetheless, the immediate task of the labor agencies should be the problem of attracting the youth. How the Ministry of Labor can solve these problems, together with the mass media, regional employment agencies, the Union of Industrialists, and other organizations involved with industry, is a practical question.

Independent of how the joint-stock companies and commercial structures take up problems of reviving industry, the state must, in the near future, carry out three functions:

1. Analytical—to determine the state of utilization of the labor and personnel potential at privatized enterprises (which may be done by the labor inspection service, in alliance with the tax agencies);
2. Tactical—to solve problems of indebtedness on a federal level, above all, debt liquidation; adoption of a Law on Labor Relations and Social Partnership.

Moreover, through the Union of Industrialists or Union of Employers, a way should be found to reorganize surplus employment, especially at the management level. Here, a training and skills upgrading system would be helpful. It would help to determine the stages of specialists’ training, and to introduce computerized management systems. This would help not only to reduce the management apparatus at the enterprises, but also to free up a portion of the personnel for retraining in the tax service, auditing offices, etc. This should, of course, be a state program.

3. The next immediate task of the state is to master its *strategic* function, in the development of programs for the mastery and introduction of new technologies. From the standpoint of state interests, “growth spots” should be determined for new manufactures (possibly on the basis of reconstructing old enterprises, including one-company cities). With the participation of the Union of Small Cities, the Union of Industrialists, our esteemed senators [members of the Federation Council, comprised of regional governors], and leaders of the banking structures, it is necessary to determine the order of priority for assimilation of technological innovations, on the basis of scientific recommendations.

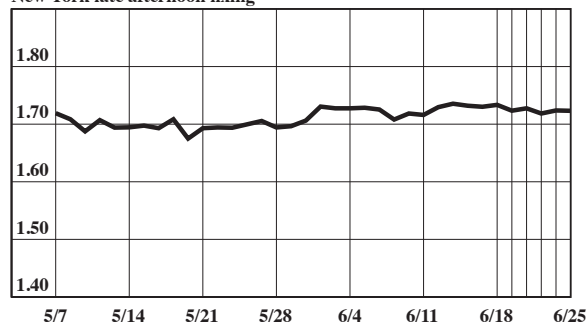
The main argument for such a policy to be implemented, is to save what remains of the personnel having the basic educational training, who could, in a short period of time, be retrained and adapt to new conditions, until a new generation comes into the production process.

The second argument, in our view, is the creation of the socio-political conditions, under current circumstances, for the redesign and necessary correction of a policy aimed at the revival of industrial production.

## Currency Rates

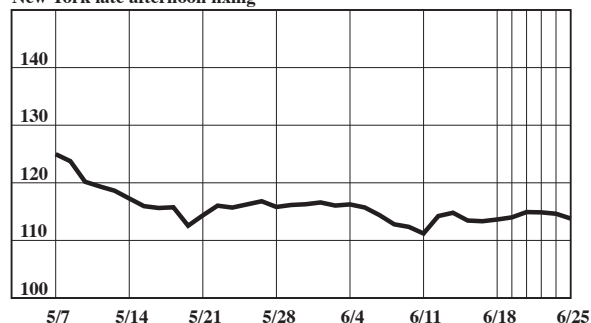
### The dollar in deutschemarks

New York late afternoon fixing



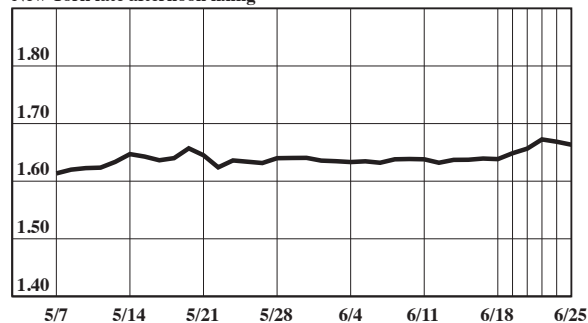
### The dollar in yen

New York late afternoon fixing



### The British pound in dollars

New York late afternoon fixing



### The dollar in Swiss francs

New York late afternoon fixing

