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## **Labour Force Mobility in the Polish Economy in Transition**

### **Abstract**

*The subject of the paper is the problem of inter-industry labour mobility in Poland in the period of transition. In particular, the study: a) describes tendencies in inter-industry labour mobility and identifies those industries with declining, and those with increasing, employment; b) elaborates on the socio-economic determinants of the above-mentioned mobility; c) examines state policies for promoting inter-industry labour mobility.*

*The analyses that have been carried out lead to the following main conclusions. Inter-industry mobility in Poland remained low throughout the surveyed period. Between 1994 and 2002, there was a downward trend in inter-industry mobility indices. Inter-industry mobility should be improved through undertaking actions that encompass complex restructuring programmes, education and training development and an improvement of active labour market policy.*

### **Introduction**

Transition to a market economy and integration with the European Union imply various changes in the Polish labour market. Deep structural changes in output and employment are connected with the adjustments to changing market demand structures. Hidden unemployment and overemployment inherited from the centrally planned economy are in decline as hard budget constraints are crucial principles on which the operation of enterprises is based. Also different paths of technical progress and labour productivity in sectors and branches imply a necessity of different sectoral employment dynamics. All these changes are connected with the sectoral and branch reallocation of labour.

The study provides an insight into inter-industry labour mobility in Poland in the period of transition. In particular, the study:

- describes tendencies of inter-industry labour mobility and identifies industries with declining and increasing employment;
- elaborates on the socio-economic determinants of the mentioned mobility;
- examines state policies for promoting inter-industry labour mobility.

Statistical data used in the paper comprise, on the one hand, aggregate data coming from the enterprise surveys which are collected by the Central Statistical Office and on the other, aggregate and individual data coming from the Labour Force Surveys conducted in Poland. Since there was a change in the classification of activities at the beginning of transition main parts of the analysis are limited to the period 1994–2002.

The structure of the paper is as follows. In section 2 concept and measures of inter-industry labour mobility are discussed. Sections 3 and 4 are focused on analysing tendencies of labour mobility in the whole economy (section 3) and in particular industries (section 4). In section 5 socio-economic determinants of inter-industry labour mobility are discussed. Section 6 comments on existing and suggested state policies influencing inter-industry labour mobility. Section 7 concludes.

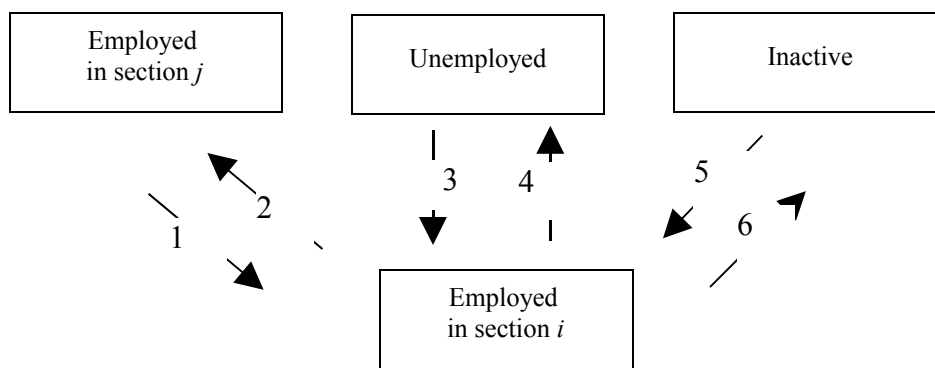
## **1. Concept and measures of inter-industry labour mobility**

Labour mobility means a movement of labour in the labour market. People change their places of work, occupations, places of residence and move between employment, unemployment and inactivity. Such changes can be both voluntary resulting from the decisions taken by individuals and involuntary being a result of the decisions initiated by employers or the changed economic conditions in which they operate. One of the important aspects of labour mobility refers to changes of work places. People can move between enterprises remaining in the same industry (section) or move between enterprises changing the industries (sections). The latter possibility refers to inter-industry labour mobility.

Labour mobility is best reflected in the flow analysis of the labour market. Figure 1 depicts three labour market stocks (unemployment, inactivity and employment which is divided into employment in section  $i$  and employment in section  $j$ ) and main flows between the stocks. Labour mobility is connected with the transitions of persons between the stocks. Some people employed in section  $i$

can leave this section and move to: employment in another section (flow 2), unemployment (flow 4) and inactivity (flow 6). All these persons form total outflow from employment in section  $i$  (flows 2+4+6). The number of employed in section  $i$  can be increased by inflows of persons from unemployment (flow 3), inactivity (flow 5) and employment in other sections (flow 1). Inter-industry labour mobility is connected as a matter of fact only with the flows 1 and 2.

**Figure 1. Main flows of labour in the labour market**



In the labour mobility analysis we use the following rates: the hiring rates, the separation rates and the turnover rates. These rates are estimated on the basis of the aggregate data from the Central Statistical Office. The hiring rate ( $hr$ ) can be described with the use of the following formula:

$$h_r = \frac{H}{L_{t-1}} \quad (1)$$

where:

$H$  – the number of persons hired to work in a given period less the number of persons returning from the child-care vacations;

$L_{t-1}$  – the number of persons working at the end of previous period.

The separation rate ( $s_r$ ) can be described with the use of the following formula:

$$s_r = \frac{S}{L_{t-1}} \quad (2)$$

where:

$S$  – the number of persons dismissed from work in a given period less the number of persons granted child-care and unpaid vacations;

$L_{t-1}$  – the number of persons working at the end of previous period.

The turnover rate ( $tr$ ) is the sum of the hiring rate and the separation rate:

$$t_r = h_r + s_r \quad (3)$$

Labour turnover results partly from job turnover being a sum of job creation and job destruction rates. Although it is not possible to calculate job turnover rates for the Polish industries by means of published statistical data, we can calculate rates of employment change in particular industries, because a change of employment stocks in a given period is a difference between jobs created and jobs destroyed.

Inter-industry labour mobility can be measured by a number of indicators. In order to assess a relative importance of inter-industry labour mobility in the whole economy we can use the following index ( $wmg$ ):

$$wmg = \frac{\sum_{i=1}^n \sum_{j=1, j \neq i}^n O_{ij}}{L_t} \cdot 100\% \quad (4)$$

where:

$O_{ij}$  – outflows from employment in section  $i$  to employment in section  $j$ ,

$L_t$  – number of persons employed in the economy in period  $t$ .

The index  $wmg$  indicates the proportion of employed who change sections (industries) within a certain period.

In order to assess inter-industry labour mobility in a particular section one can use indexes based on outflows from a section or on inflows into a section. The index based on outflows can be defined as follows:

$$mg(sio) = \frac{\sum_{j=1, j \neq i}^n O_{ij}}{L_i} \cdot 100\% \quad (5)$$

where:

$O_{ij}$  – outflows from employment in section  $i$  to employment in section  $j$  within a year (a sum of flows between consecutive waves of the LFS),

$L_i$  – average number of persons employed in section  $i$  in a certain year.

## 2. Tendencies of inter-industry labour mobility in the economy as a whole

In this section we attempt to assess the size of labour mobility in the Polish economy. The following conclusions follow from Figure 2. Firstly, in the analysed period the labour mobility indices were characterised by an upward

tendency in the years 1994–1999 (with the exception of 1997), while in the years 2000–2002 there was a significant decrease in labour mobility. The drop in labour mobility that took place in the years 2000–2002 resulted from the worsened business situation in the Polish economy. Secondly, until 1999 the hire rates were higher than the separation rates. Since 2000, this tendency has been reversed. The separation rates throughout the 2000–2002 period were higher than the hire rates. It should be also underlined that in the years 1994–1999 the hire and separation rates were characterised by an upward tendency, while in the years 2000–2002 we witnessed a declining tendency in both rates.

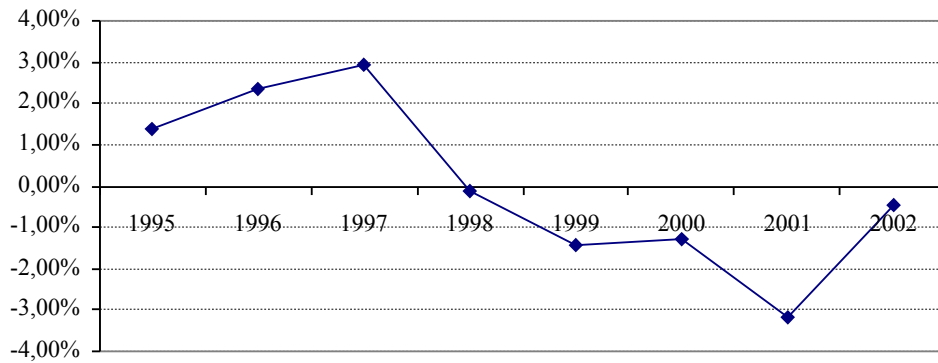
**Figure 2. The hire and separation rates and labour turnover indices in Poland in the years 1994–2002, (in %)**



*Source: Statistical Yearbooks of the Central Statistical Office, different issues from the years 1995–2003; own calculations.*

Employment was characterised by an upward tendency until 1997, while after 1997 a significant decrease in employment occurred (see Fig. 3). The decline in employment between 1998–2002 resulted not only from the slackening of the dynamics of economic growth in that period. The reasons for the drop in employment should also be seen in the acceleration of the speed of restructuring of the Polish economy in that period.

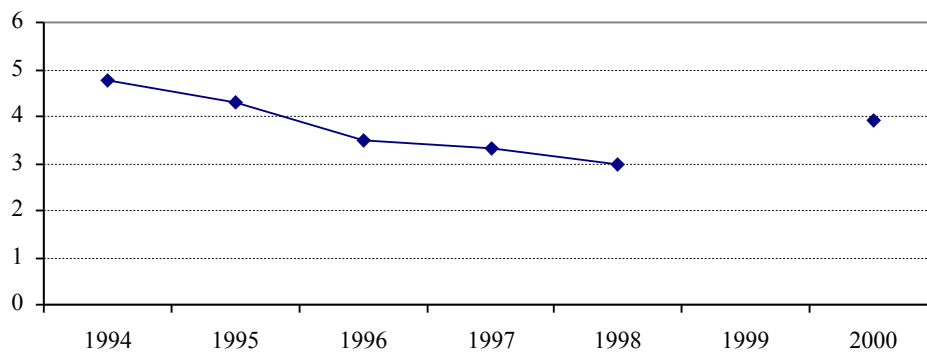
**Figure 3. The employment growth rates\* in Poland in the years 1995–2002, (in %)**



\* – the employment growth rate is calculated as the ratio of the employment growth to the level of employment in the previous year.

Source: *Statistical Yearbooks of the Central Statistical Office, different issues from the years 1995–2003*, own calculations.

**Figure 4. The quarterly average rates of outflows from employment\* in the years 1994–2002, (in %)**



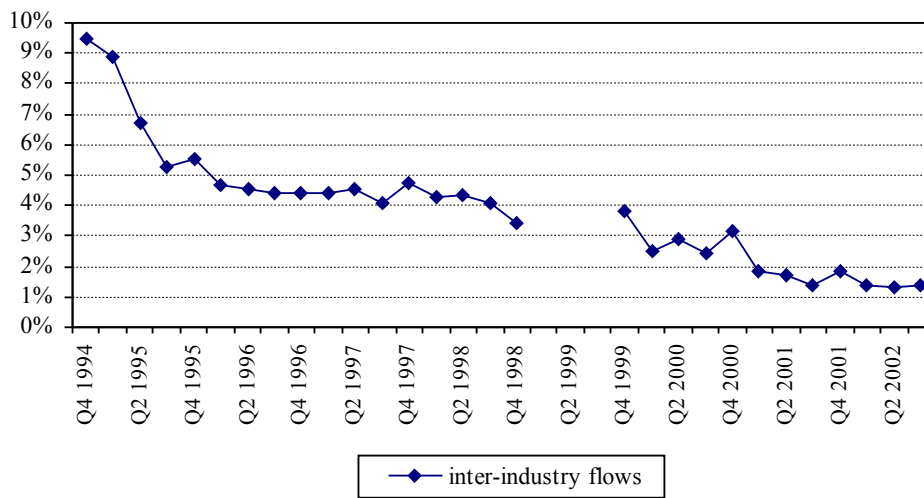
\* – calculated as the arithmetic average of quarterly rates of outflows from employment

Source: individual data from the Labour Force Survey, Central Statistical Office, own calculations.

As it follows from Figure 4, between 1994–1998 there was a declining tendency in the rates of outflow from employment. Attention should be paid to the fact that the drop in the rates of outflow from employment was a result of the deterioration of the rates of flows from employment to unemployment. Thus it can be said that a rapid increase in the dynamics of GDP in Poland in

that period contributed to the growth of labour demand. In the years 1999–2000, along with the slackening of the business situation and the acceleration of restructuring processes in the Polish economy, we witnessed a significant growth tendency in the rates of outflow from employment.

**Figure 5. The inter-industry mobility indices (wmg) in Poland in the years 1994–2002**



*Source:* individual data from the Labour Force Survey, Central Statistical Office, own calculations.

Figure 5 presents the tendencies in quarterly inter-industry mobility indices in Poland in the years 1994–2002 estimated on the basis of individual data from the population's economic activity surveys (the LFS surveys)<sup>1</sup>. As it follows from Figure 5, a declining trend occurred in indices of inter-industry mobility in the analysed period<sup>2</sup>. In the years 1996–1997, a certain stabilisation of the inter-industry mobility index was observed. However, after 1997 the downward tendency in inter-industry mobility deepened. The reasons for the drop of inter-industry mobility in the years 1996–1997 can be seen in the slackening of the speed of restructuring of the Polish economy. A high speed of restructuring means that many persons lose their job, but at the same time

<sup>1</sup> Due to the break in conducting the population's economic activity surveys in 1999, we do not present data for that year.

<sup>2</sup> In our opinion the data from the population's economic activity surveys underestimate the scale of inter-industry mobility. It is so because those individuals who stay abroad, persons living temporarily in workers hostels, students hostels, dormitories, military barracks and social welfare establishments remain outside the scope of the survey.

many persons find employment. Naturally, a part of the dismissed persons become unemployed or economically inactive. However, some persons from among the dismissed find new places of work. A lower pace of restructuring results in a lower rotation of the working pool. While the declining tendency in inter-industry mobility after 1998 was partly a result of the lower dynamics of economic growth. A dramatic drop in inter-industry mobility indices after 1998 was also a consequence of a significant deterioration of the labour market situation in Poland. The number of voluntary work separation was reduced due to problems with finding a new place of work. On the other hand, the speeding-up of the restructuring processes translated into a growth of outflows from employment to unemployment.

### **3. Tendencies of inter-industry labour mobility by branches**

The analysis of data included in Table 1 leads to the following conclusions. Firstly, the highest labour mobility throughout the entire analysed period was characteristic for the following sections: construction, trade and repair and hotels and restaurants. High employment mobility in construction results to a certain extent from the seasonal character of work in this sector. Secondly, the lowest labour mobility throughout the surveyed period was characteristic for the following sections: education, mining and quarrying, electricity, gas and water production and supply and health care and social protection. Low outflows from employment in mining result from an inconsistent use of the principle of hard budgetary limitations towards mining and a strong position of trade unions. The barrier for outflows from mining is low skills of miners themselves. The reason for the poor mobility of persons working in sections: electricity, gas and water production and supply, education and health care and social protection is too slow structural changes in these sections in the analysed period. Thirdly, since 1996 there has been a downward tendency of differences between the largest and the lowest values of mobility indices in particular ECA sections.

Throughout the entire analysed period separations outnumbered hires in the following sections: mining and quarrying; agriculture, hunting and forestry and fishing (see tables 2–3). These are sections, which are still characterised by excessive employment. The section that until now has not undergone the processes of restructuring is individual farming. Hires outnumbered separations almost throughout the entire analysed period in the following sections: real estate, renting and business activities; research and development and public administration and defence; compulsory social security. It should also be noted that in the years 1998–2002 a growing tendency of the separation rates took



place in all analysed sections. An increase in separations was a result of the deterioration of the business situation and the speeding-up of the restructuring processes.

**Table 1. The labour turnover rates by sections of the European Classification of Activities in Poland in the years 1994–2002, (in %)**

Items	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total	41.7	45.2	47.3	37.1	47.4	48.5	43.5	43.1	36.5
Agriculture, hunting and forestry	47.1	51.0	47.8	37.0	41.5	37.2	40.9	40.5	36.3
Fishing	39.5	37.2	39.4	31.8	46.2	29.7	33.4	43.1	40.4
Industry in total									
- Mining and quarrying	40.0	43.7	46.0	35.6	45.2	45.3	42.6	39.8	37.6
- Manufacturing activities	17.7	15.4	22.4	10.1	20.6	43.0	19.7	14.5	8.7
- Electricity, gas and water production and supply	45.7	50.3	52.0	41.0	51.0	48.8	48.0	44.9	43.9
- Electricity, gas and water production and supply	19.9	19.8	18.3	15.1	19.3	13.7	15.5	17.7	12.4
Construction	84.6	100.1	106.7	77.6	87.4	80.6	72.6	68.6	67.5
Trade and repair	64.8	72.6	80.0	61.7	78.2	73.1	64.1	56.3	53.3
Hotels and restaurants	62.9	71.4	70.3	60.8	77.9	64.8	55.0	56.5	47.6
Transport, storage and communication	25.5	25.0	25.8	23.3	48.0	40.1	35.4	75.6	30.2
Financial intermediation	35.5	34.3	34.7	26.6	37.6	54.6	45.2	40.9	37.0
Real estate, renting and business activities; research and development	46.9	54.9	59.0	45.7	60.0	61.8	60.7	55.0	46.4
Public administration and defence; compulsory social security	60.1	63.7	55.3	43.3	48.8	69.7	35.1	26.7	26.4
Education	17.3	12.3	13.5	16.3	17.9	27.6	26.9	24.7	19.2
Health care and social protection	19.9	19.0	20.5	16.6	20.0	28.1	26.3	23.1	20.6
Other service, community, social and personal activities	49.9	54.0	54.7	44.3	51.6	43.3	37.2	31.9	29.5

*Source:* Statistical Yearbooks of the Central Statistical Office, different issues from the years 1995–2003.

**Table 2. The hire rates by sections of the European Classification of Activities in Poland in the years 1994–2002, (in %)**

Items	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total	21.0	23.3	25.0	20.2	24.6	23.9	20.5	19.5	17.5
Agriculture, hunting and forestry	16.8	21.1	20.1	18.6	17.1	13.9	16.7	18.3	15.0
Fishing	14.1	14.1	17.1	15.0	22.6	11.2	11.0	14.5	9.7
Industry in total	20.0	22.3	24.1	18.5	22.3	20.5	19.1	17.2	18.3
- Mining and quarrying	6.0	5.3	10.4	3.2	5.9	15.1	5.6	5.8	2.7
- Manufacturing activities	23.2	26.1	27.4	21.6	25.8	22.6	22.0	19.3	21.6
- Electricity, gas and water production and supply	11.1	10.2	9.6	7.9	9.2	6.1	6.0	9.0	5.0
Construction	39.9	50.9	55.3	42.4	44.4	41.0	34.1	28.2	29.4
Trade and repair	32.6	39.0	44.2	34.8	43.2	39.9	31.9	26.2	26.7
Hotels and restaurants	32.9	38.2	38.2	34.3	44.8	34.5	27.1	26.9	20.8
Transport, storage and communication	12.8	12.3	12.6	12.9	29.1	17.6	18.1	33.5	12.7
Financial intermediation	22.1	19.9	20.8	15.6	19.9	33.3	18.5	19.5	17.7
Real estate, renting and business activities; research and development	24.4	29.5	33.1	25.5	33.3	34.5	33.2	27.9	22.9
Public administration and defence; compulsory social security	34.9	33.4	29.0	27.8	23.5	39.5	18.5	14.2	14.2
Education	9.5	8.6	10.0	8.7	9.3	13.6	13.7	12.9	9.7
Health care and social protection	10.6	10.0	10.7	8.7	9.9	11.6	9.7	9.5	9.4
Other service, community, social and personal activities	26.0	28.3	29.0	25.2	27.8	22.0	18.8	15.3	14.5

*Source:* Statistical Yearbooks of the Central Statistical Office, different issues from the years 1995–2003.

**Table 3. The separation rates by sections of the European Classification of Activities in Poland in the years 1994–2002, (in %)**

Items	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total	20.7	21.9	22.3	16.9	22.8	24.6	23.0	23.6	19.0
Agriculture, hunting and forestry	30.3	29.9	27.7	18.4	24.4	23.3	24.2	22.2	21.3
Fishing	25.4	23.1	22.3	16.8	23.6	18.5	22.4	28.6	30.7
Industry in total	20.0	21.4	21.9	17.1	22.9	24.8	23.5	22.6	19.3
- Mining and quarrying	11.7	10.1	12.0	6.9	14.7	27.9	14.1	8.7	6.0
- Manufacturing activities	22.5	24.2	24.6	19.4	25.2	26.2	26.0	25.6	22.3
- Electricity, gas and water production and supply	8.8	9.6	8.7	7.2	10.1	7.6	9.5	8.7	7.4
Construction	44.7	49.2	51.4	35.2	43.0	39.6	38.5	40.4	38.1
Trade and repair	32.2	33.6	35.8	26.9	35.0	33.2	32.2	30.1	26.6
Hotels and restaurants	30.0	33.2	32.1	26.5	33.1	30.3	27.9	29.6	26.8
Transport, storage and communication	12.7	12.7	13.2	10.4	18.9	22.5	17.3	42.1	17.5
Financial intermediation	13.4	14.4	13.9	11.0	17.7	21.3	26.7	21.4	19.3
Real estate, renting and business activities; research and development	22.5	25.4	25.9	20.2	26.7	27.3	27.5	27.1	23.5
Public administration and defence; compulsory social security	25.2	30.3	26.3	15.5	25.3	30.2	16.6	12.5	12.2
Education	7.8	3.7	3.5	7.6	8.6	14.0	13.2	11.8	9.5
Health care and social protection	9.3	9.0	9.8	7.9	10.1	16.5	16.6	13.6	11.2
Other service, community, social and personal activities	23.9	25.7	25.7	19.1	23.8	21.3	18.4	16.6	15.0

*Source:* Statistical Yearbooks of the Central Statistical Office, different issues from the years 1995–2003.

**Table 4. The employment growth rates \* by section of the European Classification of Activities in Poland in the years 1995–2002, (in %)**

Items	1995	1996	1997	1998	1999	2000	2001	2002
Total	1.37	2.37	2.93	-0.12	-1.44	-1.29	-3.18	-0.48
Agriculture, hunting and forestry and fishing	3.77	3.91	0.15	-0.50	-0.51	-0.44	-0.42	-0.21
Industry in total	0.32	0.76	0.11	-2.96	-6.12	-8.53	-5.45	-2.55
- Mining and quarrying	-5.23	-5.04	-3.89	-8.87	-13.57	-13.05	-3.00	-3.46
- Manufacturing activities	1.01	1.81	0.58	-2.41	-5.72	-8.49	-6.48	-2.43
- Electricity, gas and water production and supply	0.15	-3.64	-0.39	-2.21	-2.30	-4.21	3.85	-3.05
Construction	-3.00	4.99	9.07	-0.94	-2.51	-10.97	-9.51	-8.21
Trade and repair	0.58	-0.15	8.44	2.22	-0.59	-0.92	-5.08	1.46
Hotels and restaurants	5.75	1.13	7.34	9.81	-2.39	4.35	-3.77	-2.90
Transport, storage and communication	-0.72	-0.69	3.89	-0.67	-2.41	-7.03	-8.33	1.44
Financial intermediation	6.39	6.56	6.79	7.21	18.80	-23.18	-4.05	1.22
Real estate, renting and business activities; research and development	4.66	7.23	15.76	9.32	3.14	6.03	2.38	6.52
Public administration and defence; compulsory social security	1.49	5.56	7.28	-0.23	2.02	-	3.47	-1.40
Education	0.31	1.72	-1.06	0.63	0.06	-0.61	0.56	-1.46
Health care and social protection	0.77	0.62	1.94	-0.76	-5.33	-6.08	-4.32	-1.99
Other service, community, social and personal activities	-1.64	8.98	1.48	-5.53	10.94	0.64	-12.77	7.21

\* – the employment growth rate is calculated as the ratio of the employment growth to the level of employment in the previous period.

Source: Statistical Yearbooks of the Central Statistical Office, different issues from the years 1995–2003, own calculations.

**Table 5. The employment growth rates by subsection of manufacturing activities in Poland in the years 1996–2001, (in %)**

Subsection	1996	1997	1998	1999	2000	2001	2001/1995
Manufacture of food products and beverages (subsection DA)	6.9	-3.8	5.7	-4.5	-7.7	-5.4	-9.3
Manufacture of textiles and textile products (subsection DB)	-4.6	-7.2	-4.3	-12.6	-10.1	-11.7	-41.2
Manufacture of leather and leather products (subsection DC)	-1.3	-9.3	-14.7	-18.2	-11.2	-12.2	-51.2
Manufacture of wood and wood products (subsection DD)	6.5	0.7	9.2	-2.8	4.4	-10.5	6.3
Manufacture of pulp, paper and paper products, publishing and printing (subsection DE)	6.6	-6.6	14.7	6.8	-6.3	-3.4	10.5
Manufacture of coke, refined petroleum products and nuclear fuel (subsection DF)	-1.6	-3.3	-8.2	24.8	-20.7	-6.8	-19.5
Manufacture of chemicals, chemical products and man-made fibres (subsection DG)	-0.9	-8.2	-2.5	-5.3	-9.9	-5.8	-28.7
Manufacture of rubber and plastic products (subsection DH)	10.7	-2.7	20.5	7.1	7.2	-10.2	33.7
Manufacture of other non-metallic mineral products (subsection DI)	2.4	-4.9	3.6	-5.5	-1.7	-10.7	-16.3
Manufacture of basic metals and fabricated metal products (subsection DJ)	3.1	-7.4	4.5	-9.5	-7.7	-5.9	-21.6
Manufacture of machinery and equipment not elsewhere classified (subsection DK)	-3.8	-7.8	-3.7	-9.5	-9.6	-9.9	-37.1
Manufacture of office machinery and computers (subsection DL)	1.4	-2.8	1.1	-2.0	-4.5	-3.6	-10.1
Manufacture of motor vehicles, trailers and semi-trailers (subsection DM)	-2.2	-5.7	-2.1	-0.2	-10.4	-9.5	-26.9
Manufacture of furniture; manufacturing not elsewhere classified (subsection DN)	5.6	1.1	7.7	0.1	-2.4	-8.2	3.1

\* – data on employment were compiled from F01 statements.

Source: statistical data of the Central Statistical Office, own calculations.

The analysis of data included in Table 4 leads to the following conclusions. Firstly, the highest rotation of employment in the analysed period was typical for the following sections: financial intermediation, construction, mining and quarrying and other service, community, social and personal activities. The employment changes in mining took place with the State securing financial resources for severance pay given to dismissed miners. While a high rotation of jobs in construction results partly from the seasonal character of work in this sector. A much more important factor exerting its influence on employment in construction is the business situation. Until 1997, a rapid growth of employment in this sector took place, whereas after 1997 employment in this sector decreased substantially along with the worsening of the business situation. Secondly, the lowest rotation of jobs in the analysed period was characteristic for the following sections: education and agriculture, hunting and forestry. These are sectors that basically have not been subject to the process of restructuring. Low fluctuations of employment in agriculture are also a consequence of the ownership structure in this sector.

As it follows from Table 5, in the years 1995–2001 the vast majority of sectors numbered among the manufacturing activity section recorded a decrease in employment in 2001 as compared with 1995. The most rapid decline in employment took place in such sectors as: manufacture of leather and leather products, manufacture of textiles and textile products, manufacture of machinery and equipment not elsewhere classified. It should also be noted that there was a drop in employment in the above mentioned sections in the entire analysed period. The strongest increase in employment in 2001 as compared with 1995 took place in the following subsections: manufacture of rubber and plastic products and manufacture of pulp, paper and paper products, publishing and printing.

Table 6 contains the composition of data on inter-industry mobility indices by ECA sections in Poland in the years 2000–2002. These indices were estimated on the basis of individual data from the population's economic activity surveys. The following sections were included in the group with the lowest inter-industry mobility indices throughout the entire period: agriculture, hunting and forestry and fishing; mining and quarrying; health care and social protection; education; public administration and defence; and trade and repair. Low outflows from employment in agriculture to employment outside that sector result from a low educational level of persons employed in that sector. Low outflows from employment in public administration and defence to employment in other sections result probably from the fact that the average wages in that section were higher as compared to the country's average wages in the entire analysed period. And low inter-industry mobility of persons employed in trade and repair is probably a consequence of the fact that persons working in that

section have specific skills that are not useful for other employers. Among sections with the highest inter-industry mobility indices in the surveyed period were the following: real estate, renting and business activities; financial intermediation; other service, community, social and personal activities, construction and manufacturing activity. High inter-industry mobility in the manufacturing activity section resulted probably from the acceleration of the restructuring processes in the analysed period.

**Table 6. The quarterly average inter-industry mobility indices (mg(sio)) by ECA section in the years 2000–2002, (in %)**

Items	2000	2001	2002
Total	3.02	2.14	1.49
Agriculture, hunting and forestry and fishing	2.15	1.56	1.01
Industry in total	3.75	2.66	1.83
- Mining and quarrying	1.47	1.42	0.55
- Manufacturing activities	3.90	2.38	2.00
- Electricity, gas and water production and supply	4.07	1.96	1.20
Construction	3.58	2.16	2.50
Trade and repair	2.13	1.46	1.20
Hotels and restaurants	5.12	2.77	1.23
Transport, storage and communication	3.38	1.95	2.05
Financial intermediation	7.95	4.74	1.70
Real estate, renting and business activities; research and development	3.74	2.42	2.66
Public administration and defence; compulsory social security	2.22	1.68	1.16
Education	2.05	2.23	1.33
Health care and social protection	1.82	1.63	0.97
Other service, community, social and personal activities	3.13	2.24	3.29

*Source:* the outcome of the Labour Force Survey, own calculations.

Changes of the economic system initiated in 1990 contributed almost to a liquidation of some manufacturing sectors. As it follows from Table 7, the level of employment in some manufacturing sectors in the year 2000 decreased by 60–80% as compared with the year 1989. The strongest decline in employment occurred in mining of hard coal, manufacture of basic iron and steel and of ferro-alloys, manufacturing of electronic equipment and components, manufacture of knitting products, manufacture of footwear, manufacture of carpets and rugs, manufacture of flax products, manufacture of hosiery and tanning of leather.

**Table 7. Manufacturing sectors with largest loss of employment in the years 1989–2000**

Symbol of the Polish Classification of Activities	Name of sector	Level of employment in 2000 (1989=100)	Loss of jobs		
			Employment in '000		Decrease in '000
			1989	2000	
17.14+17.16	manufacture of flax products	13.3	31.5	4.2	-27.3
17.12+17.22	manufacture of wool products	13.4	56.0	7.5	-48.5
14.5	other mining and quarrying (quartzite, diatomite)	17.8	4.5	0.8	-3.1
32.3	consumer's electronics	21.4	73.7	15.8	-57.9
32.1	electronic components	23.3	28.7	6.7	-22.0
14.3	mining of chemical minerals (sulphur)	23.4	17.5	4.1	-13.4
19.1	tanning of leather	24.1	23.7	5.7	-18.0
24.9	manufacture of man-made fibres	24.5	27.4	6.7	-20.7
17.16	manufacture of knitting products	26.1	21.8	5.7	-16.1
17.11+17.22	manufacture of cotton products	27.8	79.6	22.1	-57.5
17.7	manufacture of hosiery	28.1	79.5	22.3	-57.2
17.51	manufacture of carpets and rugs	28.4	7.4	2.1	-5.3
17.15+17.24	manufacture of silk products	30.5	15.4	4.7	-9.7
19.3	manufacture of footwear	31.7	121.4	38.5	-82.9
27.2	manufacture of tubes	33.9	16.8	5.7	-11.1
33.4	manufacture of optical instruments and photographic equipment	33.9	11.2	3.8	-7.4
10.1	mining of hard coal	33.9	456.6	155.0	-30.6
29.1	manufacture of power machinery (turbines and boilers)	34.2	93.7	32.0	-61.7
13	mining of metal ores	35.7	36.1	12.9	-23.2
29.11	manufacture of engines and turbines	35.7	24.1	8.6	-15.5
36.3	manufacture of medical instruments	35.9	3.9	1.4	-2.5
33.5	manufacture of clocks and watches	36.4	1.1	0.4	-0.7
27.1	manufacture of basic iron and steel and of ferro-alloys	37.6	106.4	40.0	-66.4
24.15	manufacture of fertilisers	37.9	31.9	12.1	-19.8
35.2	manufacture of railway locomotives and rolling stock	38.5	48.0	18.5	-29.5
26.51	manufacture of cement	38.6	21.0	8.1	-12.9

Source: *Transformacja społeczno-gospodarcza w Polsce (Socio-economic transformations in Poland)*, Government Centre for Strategic Studies, Warsaw, July 2002, p. 121.



A drop in employment in mining and steel industry was a result of the reduction in the domestic demand and changes in export destinations. A dramatic decrease in employment in the remaining manufacturing sectors resulted to a certain degree from the lack of consistent restructuring programmes.

#### **4. Determinants of inter-industry labour mobility**

Determinants of inter-industry labour mobility can be divided into two groups. The first group of determinants is connected with labour demand. Transformations taking place in Poland lead to changes in the structure of demand and supply in the market of goods and services and this entails changes in the sectoral structure of labour demand. The second group of factors is associated with labour supply. Different groups of labour force, distinguished with respect to such features as education, age, profession, show different degrees of mobility. The latter group of determinants is essential even though from the fact that in Poland people are still attached to the model in which the entire professional career is carried out in one place of work.

##### **4.1. Labour demand approach**

Inter-industry mobility is connected with the process of structural changes in the labour market. The changing structure of demand for manufactured goods and services and developing technological progress imply structural changes in labour demand in the sectoral breakdown. The mentioned structural changes lead to a liquidation of jobs in some sectors and creation of new jobs in other sectors of economy. These processes should be very intensive in Poland since the structure of employment in the period of the centrally-planned economy differed fundamentally from the standards present in developed market economies. One of the characteristics of this employment structure was a very high share of the agricultural sector, a relatively high share of the industrial sector and a relatively low share of the service sector (Kwiatkowska 2000).

The process of the systemic transition brought significant changes in the employment structure. The proportion of persons employed in the service sector increased considerably, while the proportion of persons employed in industry and agriculture decreased, although slightly in the latter case. These changes took place in the conditions of the decrease in the total number of working persons in the Polish economy and in the conditions of the diverse dynamics of employment in particular sectors of economy (Kwiatkowska 2000).

Changes in the sectoral structure of labour demand result from various factors such as: different dynamics of technical progress in particular sectors, uneven degree of competitiveness in sectors, the response of individual enterprises to market expectations and the demand for goods and services produced by them. Due to the lack of appropriate data we limit our analysis to sectoral structure of value added. The analysis of data included in the table 8 leads to the following conclusions (Kwiatkowska 2000; Kwiatkowski, Kucharski, Tokarski 2003). Firstly, the share of the agricultural sector in value added was decreasing systematically in the entire analysed period, mainly in favour of the service sector. This decline, in combination with a slight drop in the share of agriculture among working persons, gives evidence to high hidden unemployment in rural areas and a very low level of labour productivity. Secondly, the share of industry and construction in value added diminished significantly. The decline is consistent with tendencies taking place in developed market economies. Thirdly, there is a successive growth of the share of the service sector in value added. This tendency should be assessed positively. However, it should be remembered that the development gap in case of this sector between Poland and other European Union countries is still quite significant. Fourthly, the comparison of the previously presented changes in the sectoral structure of employment with the changes in the sectoral structure of value added points to the existence of diversity of labour productivity (measured by value added per one employee) between the analysed sectors of economy.

**Table 8. The structure of value added by sector of economy in the years 1995–2002, (in %)**

Sector:	1995	1996	1997	1998	1999	2000	2001	2002
Agriculture	7,1	6,7	5,7	4,9	4,1	3,5	3,7	3,1
Industry	38,0	36,5	37,1	35,8	34,1	33,9	31,3	30,3
Services	54,9	56,8	57,2	59,3	61,8	62,6	65,0	66,6

*Source:* Kwiatkowski, Kucharski, Tokarski (2003) str. 234, statistical data of the Central Statistical Office, own calculations.

The changes in the structure of labour demand occurred with different intensity and in different directions in particular sectors of economy. Available statistical data allow determining changes taking place in the internal structure of the industrial sector.

**Table 9. The dynamics of value added (VA) and the level of employment(E) for sections of manufacturing activity (constant prices, 1995=100)**

Subsection		1996	1997	1998	1999	2000	2001
Manufacture of food products and beverages (subsection DA)	VA	110,32	123,78	134,69	130,54	127,81	141,72
	E	106,87	102,86	108,73	103,89	95,94	90,71
Manufacture of textiles and textile products (subsection DB)	VA	99,86	101,17	106,85	92,43	87,68	87,25
	E	95,39	88,49	84,71	74,04	66,54	58,78
Manufacture of leather and leather products (subsection DC)	VA	115,45	113,76	96,09	82,69	82,12	78,83
	E	98,69	89,55	76,43	62,52	55,55	48,76
Manufacture of wood and wood products (subsection DD)	VA	103,14	144,38	170,44	147,24	177,41	161,88
	E	106,48	107,18	117,09	113,76	118,81	106,31
Manufacture of pulp, paper and paper products, publishing and printing (subsection DE)	VA	114,29	137,67	156,78	185,59	183,41	183,02
	E	106,64	99,62	114,29	122,10	114,38	110,54
Manufacture of coke, refined petroleum products and nuclear fuel (subsection DF)	VA	87,32	92,80	112,79	108,86	108,99	133,53
	E	98,41	95,12	87,28	108,97	86,37	80,50
Manufacture of chemicals, chemical products and man-made fibres (subsection DG)	VA	97,60	100,68	99,01	99,15	100,44	106,50
	E	99,15	91,03	88,72	84,03	75,72	71,31
Manufacture of rubber and plastic products (subsection DH)	VA	114,87	132,95	148,32	140,97	140,30	157,81
	E	110,71	107,72	129,77	138,92	148,95	133,74
Manufacture of other non-metallic mineral products (subsection DI)	VA	151,42	173,69	192,47	201,35	223,56	221,64
	E	102,35	97,31	100,83	95,30	93,70	83,69
Manufacture of basic metals and fabricated metal products (subsection DJ)	VA	94,57	116,06	114,89	100,07	101,57	96,25
	E	103,09	95,48	99,80	90,28	83,35	78,40
Manufacture of machinery and equipment not elsewhere classified (subsection DK)	VA	105,69	109,22	108,48	96,11	101,07	101,30
	E	96,19	88,67	85,36	77,23	69,80	62,87
Manufacture of office machinery and computers (subsection DL)	VA	121,04	140,37	157,73	156,71	161,79	171,26
	E	101,40	98,58	99,65	97,65	93,29	89,93
Manufacture of motor vehicles, trailers and semi-trailers (subsection DM)	VA	109,25	121,98	152,63	136,41	128,49	121,36
	E	97,76	92,18	90,22	90,04	80,70	73,06
Manufacture of furniture; manufacturing not elsewhere classified (subsection DN)	VA	112,05	140,30	165,58	168,18	170,43	174,37
	E	105,58	106,75	114,94	115,05	112,30	103,11

Source: statistical data of the Central Statistical Office, own calculations.

Table 9 contains data on the dynamics of real value added and the dynamics of employment by particular section of manufacturing activities. On the basis of data included in Table 9 we can say that between 1995–2001 the dynamics of changes in value added in particular sections of manufacturing activities was strongly diverse. A drop in value added in relation to the 1995 level took place in three sections: manufacture of leather and leather products (DC), manufacture of textiles and textile products (DB) – decline by 12.75% and manufacture of basic metals and fabricated metal products (DJ). The highest increase in value added was recorded in the following sections: manufacture of other non-metallic mineral products (DI), manufacture of pulp, paper and paper products, publishing and printing (DE); manufacture of furniture; manufacturing not elsewhere classified (DN); manufacture of office machinery and computers (DL).

Considering the changes in the level of employment in particular sections it should be concluded that a growth of employment occurred only in case of four sections of manufacturing activity over the years under analysis. These sections include manufacture of rubber and plastic products (DH), manufacture of pulp, paper and paper products, publishing and printing (DE), manufacture of wood and wood products (DD), manufacture of furniture; manufacturing not elsewhere classified (DN). The highest fall in employment was recorded in the following sections: manufacture of leather and leather products (DC) and manufacture of textiles and textile products (DB). The confrontation of changes in the dynamics of value added with the dynamics of changes in employment in particular sections of manufacturing activity reveals a straightforward dependence. The higher the dynamics of value added, the higher the dynamics of the employment growth or the lower the dynamics of its decrease.

#### **4.2 Labour supply approach**

Considering the determinants of inter-industry mobility from the supply side of the labour market we raise the question which characteristics of individuals stimulate mobility and which not. A flow from employment in one section of economy to another is after all often connected with necessity to acquire new abilities and professional skills and a different approach to work. Some people can cope with this situation better, while others worse. In this section of the paper we will identify the characteristics of individuals that stimulate inter-industry mobility.

In order to present the influence of individuals' characteristics on inter-industry mobility, the results of estimations of the so-called multinomial logit model were used (Kwiatkowski, Kubiak, Kucharski 2002). In this model the

relationships between a number of individuals' characteristics and the probability of flow from employment in section  $i$  to: a) employment in section  $j$ , understood here as inter-industry mobility; b) employment in section  $i$ , but in another place of work; c) unemployment were examined. The following features were adopted as explanatory variables: gender, age, education, marital status, job performed, a firm's size measured by the number of employed persons and the size of locality and the level of the socio-economic development of the region in which the surveyed individual is residing.

The model was estimated on the sample totalling 192,229 observations coming from the Labour Force Survey conducted in the years 1995–1999.

The results of estimations lead to the following conclusions and observations. Men are characterised by higher inter-industry mobility than women, but at the same time women more rarely move to unemployment. Women constitute a group being worse treated by employers, and therefore they have decisively lower expectations as to work and wage conditions. Another characteristic differentiating inter-industry mobility in the light of our analysis is age. The estimated mobility indices are a decreasing function of age: younger persons have higher mobility, while older persons have lower. The lack of relationship between age and inter-industry mobility was found in the case of persons performing non-manual professions. A number of arguments speak for such tendency. Firstly, older people have long experience in the performed work and due to that they are more rarely dismissed from work. Secondly, younger people take up challenges associated with a new job more willingly. Finally, they are better educated and consequently it is easier for them to find a new job.

A marital status is an important factor determining inter-industry mobility. As the analyses show, higher mobility is typical for single persons. To a certain extent, it is a result of young age of the majority of these persons and the related factors. However, it seems that a major role here is played by a higher propensity of these persons to change the place of work and the residence.

Education appears to be a feature that affects inter-industry mobility to a slight degree. Women with secondary education are characterised by higher inter-industry mobility than women with vocational and primary and also with tertiary education. Also the risk of flow to unemployment for women without tertiary education is not diverse regardless of the fact whether she has secondary, vocational or primary education. Among men, higher inter-industry mobility is observed in case of persons with secondary and tertiary educational background. In the professional breakdown, tertiary and secondary educational levels determine higher inter-industry mobility in the group of persons practising manual professions. For persons practising non-manual professions, education has no effect on inter-industry mobility.

In regions with a higher level of socio-economic development, labour mobility is bigger. These regions are characterised by a modern economic structure, which creates good conditions for labour mobility. In these regions, also the risk of flow to unemployment is lower. While the size of locality, in which the respondent is residing, is of insignificant influence on inter-industry mobility. In turn, residents of small and medium-sized towns are to the highest extent threatened by unemployment.

Inter-industry labour mobility is connected with the performed profession, and this relationship is stronger in the case of men than women. Lower mobility is observed with women practising agricultural professions and professions related to trade and personal services. The highest mobility among men is characteristic for those who practise such professions as operators and fitters of machines and appliances, employees performing simple work and workers and craftsmen.

The size of the firm, in which the respondents are employed, is also an important determinant of the mobility level. Persons employed in large firms (in which more than 100 persons are employed) have lower mobility than persons employed in small firms. This can be explained by the fact that large firms have a strong market position, and therefore they are more stable (with more stable employment as its consequence).

On the basis of the conducted analysis no significant differences were found in inter-industry mobility of persons employed in the private and public sectors. It can only be said that the processes of changes taking place in the Polish economy affect both sectors to the same degree and generate the same incentives for inter-industry mobility.

## **5. Policies for promoting labour mobility**

The analyses carried out so far showed that inter-industry labour mobility is determined by a number of factors. Changes taking place in the industry structure of labour demand imply labour mobility. In turn the propensity to accept these changes and ability to adapt to new conditions depend on the attitudes of individuals and groups of labour force. The State can thus stimulate labour mobility influencing the factors, which determine such mobility.

Firstly, the State stimulates inter-industry labour mobility by means of programmes of restructuring of particular industries and sectors. The principle of soft budgetary limitations of state-owned enterprises implied that in the first years of transition the level of employment in these enterprises was determined

rather by habits derived from the period of the centrally-planned economy than by an economic optimisation. This resulted in maintaining a high level of hidden unemployment. A gradual withdrawal from soft budgetary limitations led to the collapse of many enterprises and whole sectors. For example, this was the case of the light industry. For many sectors the restructuring programmes have been developed and realised. The following 8 industrial sectors were covered by these programmes: hard coal mining, iron and steel industry, power-engineering industry, defensive industry, gas industry, oil industry, shipbuilding industry and food-processing industry. The above mentioned sectors can be divided into two groups from the viewpoint of the balance of production capacities. The first group consists of sectors, whose production potential created during the period of the centrally-planned economy proved excessive in relation to effective demand when confronted with the conditions of the market economy. These sectors include hard coal mining, iron and steel industry, defensive industry and shipbuilding industry. The second group is comprised of sectors that in view of demand growth forecasts call for an essential extension of production and distribution capacities. These include power-engineering industry, gas industry and oil industry.

The need to sell out auxiliary and non-productive assets, a high level of capital needs related to the necessity of replacement of excessively exploited technical equipment and its modernisation are common for both groups of sectors. The programmes of restructuring encompass among others the restructuring of employment. Employers dismissed from the restructuring enterprises receive benefits within the frame of the adopted social packages. These benefits aim to increase chances to employ these persons again. One of the biggest restructuring tasks of the Polish economy is the restructuring of hard coal mining. In the programme of restructuring of hard coal mining that has been recently carried out, the non-use of so called collective redundancies was adopted as a primary principle. Within the framework of the Miners' Social Package, restructuring of employment is foreseen, based on both passive actions – consisting in the introduction of five-year miners' leaves and active actions – consisting in work intermediation and training. The employee who will be interested in the change of his workplace will have the right to the following benefits: a social benefit paid during job seeking, single gratuitous training, a single severance pay, a loan to start his own economic activity. It is expected that as a result of these actions about 118 thous. persons will leave the mining industry (Walewski 2000).

As it results from the evaluation of the sectoral restructuring programmes made by the Task Force for Structural policy in Poland, the largest success was achieved in the power-engineering industry and in the food-processing industry.

On the other hand, the shipbuilding industry and the hard coal mining seem to be the biggest failure of sectoral policy. The restructuring of the latter sector can be called neither a technical nor an economic problem, but almost exclusively a social problem. The problem appears on such a scale and is so important that further restructuring of this sector will not be possible without restructuring of the entire Slasko-Dabrowski region, which entails the necessity to reconstruct industry in the region, and to make mining communes economically viable in particular. Thus the development of complex programmes of restructuring is strongly required. By complex programmes of restructuring we understand such actions, which do not only lead to reductions in employment in order to achieve the optimal level of employment but also contain activities aimed at re-employment of dismissed persons. Persons leaving work as a result of restructuring of a given industry should be provided with access to such programmes and actions which will enable them to develop new professional skills and to find another employment or to start a business activity on their own account. We have in mind such actions as vocational training, preferential loans and credits. In restructuring programmes carried out previously such actions were undertaken on a small scale with focus on single money compensations for persons leaving their work or some instruments allowing the transfer of a part of workforce into vocational inactivity were used.

**Table 10. The main indicators concerning education and the size of continuing training in Poland and OECD countries**

Indicators	Poland 1998	OECD average 1999
Proportion of persons with at least secondary education level in population of persons aged 25 – 64	54%	62%
Proportion of persons with tertiary education level in population of persons aged 25 – 64	11.3%	14%
Proportion of participants in continuing training	13%	31%
Number of points achieved in a test of reading with understanding according to OECD survey	230*	269

\* Poland was ranked 17th (out of 18 surveyed countries).

*Source:* Education at a glance, OECD indicators, 2001; Strategia rozwoju edukacji narodowej (The development strategy of national education), Warsaw 2001.

Secondly, the State stimulates inter-industry labour mobility through the development of the system of education and training. Not only the human capital theory but also empirical studies show uncontrovertibly the importance of education as a determinant of adjustment to an unstable and dynamic situation in



the labour market. Better-educated persons are characterised by a higher degree of mobility. The structure of education of the working pool in Poland is very different compared to the remaining OECD countries (see Table 10). As results from labour force surveys made by Eurostat in 2002, the proportion of persons aged 25–64 participating in any forms of education and training amounted to 4.3% in Poland while the average for the contemporary EU member countries was 8.5% and 5% in candidate countries (after the Ministry of Education, Science and Sport). Moreover, it should be remembered that in the structure of education in Poland there is strong regional diversity, which are particularly evident between the inhabitants of towns and rural areas.

Raising the education level of the working pool is a long-term process that calls for a number of changes in the entire system of education. Therefore, there is major importance of temporary actions to be taken in this field in the form of vocational training and continuing education. The elements that support continuing education in Poland and encourage adults to enhance their skills include an obligation imposed on employers on the strength of the Labour Code to facilitate raising the professional skills by employees, a tax relief related to expenditures on training, training of the unemployed and persons threatened by a job loss and job seekers financed out of the funds of the Labour Fund (supplied by the State budget and employers' contributions). However, these elements are not consistent and do not form a real system. The lack of a good diagnosis of demand in continuing training does not allow assessing to what degree the existing mechanisms of support are efficient, what are the barriers to take up training initiatives and what changes should be introduced. Also the market for supply of training services is poorly recognised, which entails difficulty to control the quality of available courses and to ensure effective money spending for training. The statistics on education only covers education within the education system. The full statistics on education outside the education system is still missing (Kotowska 2003). The statistical data available in this field show that such activities are undertaken in Poland on a lower scale than in other European countries (see Table 11). The development of continuing training and the enhancement of the education level of adults is thus another suggestion to improve labour mobility.

Thirdly, the State can influence labour mobility by means of labour market policy. As mentioned earlier, training organised within the frame of active labour market programmes exerts its influence on labour mobility. For the improvement of labour mobility important are also other forms of an active fight against unemployment and protective activities in the form of benefits for the unemployed. The former increase the chance for employment through the enhancement of skills and temporary employment. The latter ease economic effects of unemployment and enable starting activities in order to find a job.

**Table 11. Training of employees**

Continuing training offered to employees by enterprises	Poland (1999)	EU candidate countries (1999)	EU countries (1993)
Proportion of firms cofinancing training of employees	39%	11% – 69%	18%–96%
Proportion of employees who are offered training	33%	20% – 53%	32%–63%
Average duration of training per 1 participants (in hours)	28	24– 42	26–42
Proportion of training costs in labour costs	0.8%	0.5%–1.9%	0.9%–3.6%

*Source:* K. Nestler, E. Kaillis, *First survey of continuing training in enterprises in candidate countries (CVTS2)*. Statistics in Focus, Eurostat, European Communities 2002; Continuing Training in Enterprises Fadsend Figures, A report of the results of the CVTS, European Commission, 1994.

All activities undertaken within the framework of the government labour market policy are financed out of the funds of the Labour Fund. The relative size of these funds as measured by their share in GDP is not too high. In OECD countries this share is at the level of ca. 3% of GDP on average and the size of unemployment in these countries is much lower than in Poland (see A. Malarska 2000, p. 176). The majority of these modest resources were spent to pay obligatory benefits prescribed by law, namely benefits for the unemployed and pre-retirement benefits. Expenditures on active labour market programmes, which are not obligatory, absorbed only a small part of the funds of the Labour Fund (see Table 12).

A low level of financing results is a low number of participants in active programmes (see Table 13). The effectiveness of particular forms as measured by a re-employment rate of participants is diverse. The rate of re-employment measures the gross effectiveness of the programme. In order to be able to specify an impact of programme participation on the possibility to find a job, we need to compare the labour market situation of the programme participants with the situation of those who did not participate in such programmes. Only the differences in the situation of both groups can be treated as the net effect of the programme realisation (see E. Kwiatkowski 2002). The evaluation of the training effects made with the use of this method makes it evident that vocational training increase the chance to leave unemployment. However, such effect does not take place in the group of persons participating in training organised by public employment service. Positive effects of participation in vocational training were found in case of training financed by the interested

persons themselves and by employers. These findings lead thus to the conclusion that vocational training can provide a working solution that improves the labour market situation of individuals, but they should be directed primarily to short-term unemployed persons. Labour offices should pay big attention to the selection of participants in training. The reasons for a lower effectiveness of training sessions organised by labour offices should be sought in the organisation and quality of these courses, on the one hand, and the attitude of the participants alone, on the other hand. The evaluation of the effects of participation in intervention works with the use of this method leads to the conclusion that the programme participants share a lower risk of long-term job search than those unemployed who do not participate in the programme. The difference is stronger just after the programme completion and diminishes gradually with time. Thus the intervention works can provide a solution to improve the situation of individuals on the labour market. This is also true when such a person remained unemployed for a long time. These observations lead to the conclusion that active forms of the labour mobility improvement should be further developed. Such activities should be implemented primarily where the restructuring processes are intensified.

**Table 12. Expenditures of the Labour Fund in Poland in 1990–2002**

Year	Expenditures of the Labour Fund		Expenditures on active forms	
	in million PLN	% of GDP	in million PLN	% of GDP
1990	370.2	0.70	118.7	0.225
1991	1,358.4	1.80	94.7	0.126
1992	2,282.7	2.15	107.5	0.101
1993	3,190.3	2.31	354.5	0.256
1994	4,447.1	2.46	569.0	0.315
1995	6,328.3	2.55	754.9	0.303
1996	7,525.3	2.41	806.1	0.258
1997	6,799.6	1.76	1,168.4	0.303
1998	5,215.0	1.17	1,241.8	0.278
1999	5,712.1	0.93	1,097.4	0.179
2000	6,945.9	1.01	783.3	0.106
2001	9,342.2	1.29	604.4	0.084
2002	10,876.9	-	539.3	-

- lack of data

Source: *Bezrobocie w 2002 r. (Unemployment in 2002)* 2003, p. 125; T. Olejarz (2000) p. 20, data for the year 2000 provided by the Central Statistical Office in Warsaw; own calculations.

**Table 13. The main effectiveness indicators of vocational activation programmes carried out by labour offices in 1999–2002**

Tasks	1999		2000	
	No. of persons	Re-employment rate (%)	No. of persons	Re-employment rate (%)
Total (Share of ALMP participants in total unemployment, %)	556 500 (23,6)	51.2	452 072 (16,7)	49.8
Training	146 037	50.6	108 711	49.1
Subsidised employment	174 669	65.1	132 930	66.4
Public works	77 881	13.2	56 328	14.2
Reimbursement of contribution paid to the Social Insurance Institution	2 400	-	1 384	77.8
Reimbursement for graduates	68 271	73.3	53 974	71.7
Graduate traineeships	64 697	39.5	72 862	36.3
Socially useful work	1 046	19.4	931	26.2
Special programmes	9 880	25.2	11 593	60.2
Loans in total	11 598	-	7 338	-
for unemployed	9 055		5 507	
for employers	2 543		1 831	
Other tasks	-	-	6 021	43.3
Tasks	2001		2002	
	No. of persons	Re-employment rate (%)	No. of persons	Re-employment rate (%)
Total (Share of ALMP participants in total unemployment, %)	234 759 (7,5)	48.6	253 096 (7,8)	48.5
Training	51 176	44.5	51 742	44.6
Subsidised employment	64 846	67.8	58 314	68.0
Public works	32 874	13.3	34 368	17.9
Reimbursement of contribution paid to the Social Insurance Institution	1 086	89.4	x	x
Reimbursement for graduates	26 362	73.5	27 213	76.4
Graduate traineeships	45 867	35.2	66 708	41.0
Socially useful work	632	44.6	x	x
Special programmes	4 972	62.4	4 413	70.3
Loans in total	11 598	-	7 338	-
for unemployed	9 055		5 507	
for employers	2 543		1 831	
Other tasks	-	-	6 021	43.3

Source: MGPIPS.

## Summary

The analyses that have been carried out lead to the following conclusions:

1. In the analysed period there was a changing tendency of turnover rates as well as the hiring rates and separation rates. Since 1998 both the turnover rates and the hiring and separation rates were characterised by a downward tendency.
2. The employment growth rates have been increasing between 1995 and 1997 (that is in the period of rapid economic growth), while since 1998 a sharp employment decline have been taking place which was related to the slackening of the economic growth rate.
3. Inter-industry mobility in Poland remained low throughout the surveyed period. Between 1994 and 2002, there was a downward tendency in inter-industry mobility indices.
4. The highest labour mobility throughout the entire analysed period was characteristic for the following sections: construction, trade and repair and hotels and restaurants. High employment mobility results to a certain extent from the seasonal character of work. The lowest labour mobility throughout the surveyed period was characteristic for the following sections: education, mining and quarrying, electricity, gas and water production and supply and health care and social protection.
5. Among sections with the highest inter-industry mobility indices in the surveyed period were the following: real estate, renting and business activities; financial intermediation; other service, community, social and personal activities, construction and manufacturing activity.
6. The following sections were included in the group with the lowest inter-industry mobility indices throughout the entire period: agriculture, hunting and forestry and fishing; mining and quarrying; health care and social protection; education; public administration and defence; and trade and repair.
7. The improvement of labour mobility can be achieved through undertaking the following activities:
  - a) Implementation of complex programmes of restructuring so as not only to dismiss people, but also to give them a chance for re-employment;
  - b) Development of the system of education and continuing training for adults and an improvement of their availability;
  - c) Better use of instruments of active labour market policy. The scale of these activities should be enhanced either through an increase of expenditures on these programmes or at least through a concentration of these activities on the areas where the labour market situation is particularly difficult.

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