

## **Measuring labour mobility in Hungary (statistics and pilot studies)**

Country Report of Hungary <sup>1</sup>

### *A general overview*

In Hungary the work for creating mobility indicators, which could serve as a suitable basis for an international comparison, started after the last meeting of the Focus group in Paris. After that - as a participant on that meeting - I did my best to convince some colleagues in the HSO that the database of the **Labour Force Survey** would be suitable for this purpose and we must try it. Thanks to their co-operative spirit it has worked. First, of course, the statisticians referred to a sample which is rather small and changing from time to time and the fact that there were some changes in classification of qualification. But after several discussions the work started and has been carried out *for the year 1998*. Now we can present some very first results for your information. The paper of **Mr. Akerblom** from Finland helped us very much providing a practical guideline on how to create mobility indicators from LFS.

As to the topic on **international mobility**. There are several - at least four - data bases which have to be put together in order to develop an appropriate database for measuring international migration. It is very important to note that a *new department of the HSO* has been set up for this purpose. This department will co-ordinate different data bases (the database of the Ministry of Home Affairs concerning residence permit and, the Methodological Centre of Labour (work permits), that of the Ministry of Education (on scholarshipholders) and data of other countries which relates to international migration from Hungary.

It must be pointed out that beside the better exploitation of existing data bases, the widening of data bases is of also great importance in order to get more detailed information on labour mobility. IKU - Research Institute

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for Innovation - conducted a pilot survey answered by 830 higher educated people.

Beside all these there are several **pilot studies** in Hungary focusing on the knowledge flow and mobility of special segments of the qualified manpower like university graduates, researchers, and holders of PhD degree. When reading these papers you recognise that the reason why researchers (mainly sociologists) have turned to this topic is the very deep changes in the structure of the economy which were not necessarily advantageous for the highly educated people. In the research papers you can read about the rather poor level of technical and product innovation, the poor high education and its declining quality, the backwardness of R+D infrastructure, the worsening standard of living of people working in education and research. So, these studies could draw the attention of policy makers to very important social problems. The main findings of one of the mobility researches carried out at the Budapest University of Economics.

Referring to the **Rosengren Report** we still consider as a very important topic to be the interaction between the industry and the public research infrastructure and the brain-drain. But there are some other rather important topics, too:

- first, the *interaction between research and education*.
- second, the *impacts of knowledge from abroad on the economic development and innovation* in Hungary.
- *third, the interactions between education and economy*
- *fourth, the employment of the highly qualified personnel*.
- *fifth, the mobility of different professions of the educated people*
- *siwth, the mobility of educated people as compared to non-educated ones, and*.
- *seventh, gender related mobility*

As to the data collections: we agree that LFS appears to be suitable for measuring mobility by sectors, gender, age and qualification of employees. The indicators are suitable for international comparisons, too. However, there is need for deep analyses based on special data collections or pilot studies.

Finally I would like to inform you about the research work undertaken by GKI Co., my institute, very briefly.

In my research we study the mobility of highly educated people in various regions. For this purpose we have selected the university towns

and their regions, where the share of highly qualified people is remarkable higher than the country average.

The focal point of the research are the following:

First, the relationship between the town (region) and the university, research institutes, industrial and technological parks.

Second, the relationship between the share of highly qualified people and the development of the regional economy (the ability of attracting capital to the region from abroad and/or from Hungary)

Third, the mobility patterns between research-producing and research-consuming sectors. Here, we intend to investigate the flows of qualified people of different professions like medicines, economists, engineers, doctors etc., in particular.

The research is based on the regional statistical data and representative data collections with questionnaires, case studies made at universities, research units and companies. The pilot study will be carried out in Szeged during this summer. It has an old university far from Budapest and also far from the Western border, near to Yugoslavia and Romania. Despite the relatively bad geographical position of this region its economy is growing rather fast and there are some innovative firms, too.

### *Using LFS to measure mobility in Hungary*

Taking into consideration that in Hungary there are not registers like in the Nordic countries we used LFS. It has to be stressed that the paper of Mr. Akerblom presented in Paris last December stimulated us very much when attempting to create indicators for intensity of mobility of high educated people.

Like Mr. Akerblom we were looking for indicators on mobility between firms and other organisations. We meant on mobility the change of employer (enterprise). Those who left an employer but did not enter to an other one because of unemployment, pension etc. were not among the persons moving.

We found that total number of highly qualified employees was 620 thousand, 16,5% of total employees.

#### **Share and distribution of highly qualified employees in 1998**

Groups of branches	Share of highly qualified people	Distribution of employees	Distribution of highly qualified employees
Primary sectors	7,2	16,3	7,0
Manufacturing	8,8	27,2	14,5
ICT sectors	16,9	3,9	4,0
Other manufacturing	7,4	23,3	10,5
Services (transport, trade etc.)	13,3	29,6	23,9
Education	58,9	8,3	29,6
Public administration	22,0	18,4	25,0
Total	16,5	100,0	100,0

Source: HSO and own calculations

10% of total employees changed their workplace in 1998. This is about equals with EU average level. The share of highly qualified employees who changed their workplace in 1998 was much lower than in case of total employees. It was only 6,1%, just the opposite as it can be

observed in most Western countries, where mobility of educated people is higher than the average.

### **Mobility rate of total employees in Hungary in 1998**

	Men	Women	Total
Younger than 40	13,6	12,4	13,1
Older than 40	7,1	5,5	6,4
Total	10,6	9,0	9,9

Source: HSO and own calculations

### **Mobility rate of highly qualified employees in Hungary in 1998**

	Men	Women	Total
Younger than 40	8,2	8,7	8,5
Older than 40	4,9	3,1	4,0
Total	6,2	5,7	6,1

Source: HSO and own calculations

We found that

- overall mobility rate was 10% (just like at the EU level).
- mobility rate was lower in case of high educated, only 6%.
- mobility of men was higher than women in the total sample but it was the same in case of highly qualified people.
- Hungarian data underlines the well known experience that mobility of younger generation was much higher than the older generation both in case of low and high graduated people.
- there is not a difference of mobility of men and women of younger people, but mobility of older people is definitely stronger in case of men than women. Mobility rate was much lower in case of high educated people in both age groups.

The mobility matrix provides information on inflow and outflow from delivering and receiving sectors.

**Rate of inflow and outflow of highly educated people  
by group of sectors in Hungary and in Finland**

	Inflows		Outflows	
	Hungary 1998	Finland 1995	Hungary 1998	Finland 1995
Primary sectors	4,3	17	9,2	13,1
Manufacturing	8,0	34	5,8	24,4
Services (transport, commerce, research, business services)	8,5	28	7,9	21
Education	3,4	41	5,2	33
Public administration and public health	6,4	28	4,8	25

Source: HSO and own calculations, Akerblom

**The distribution of inflow and outflow of highly educated  
people by sectors in Hungary, 1998**

	Inflows	Outflows
Primary sectors	5,1	11,0
Manufacturing	18,2	13,7
Services (transport, commerce, research, business services)	33,8	30,9
Education	16,8	25,0
Public administration and public health	26,1	19,4
Total	100,0	100,0

- It was rather surprising that mobility was weak in ICT sectors, much weaker than in the other sectors of the manufacturing industry. Mobility of people employed in education was the weakest reflecting that this sector does not attract people because of the unfavourable circumstances, incomes, in particular.

Summarising all that

- LFS provides good but rather aggregated picture on mobility. These data are sufficient for analysis of trends in overall mobility and mobility between industries or between aggregated groups of industries (sectors) but there were not detailed enough to present interactions between research producing and research using sectors.

- Mobility based on labour force survey are excellent when comparing mobility of different countries. We were rather surprised when comparing the mobility rates of high educated people of Hungary with that of Finland in 1995. We found that

- the mobility rate was 3-4 times higher in Finland than in Hungary.

- mobility of primary sectors was the lowest in Finland and the highest in Hungary.

- mobility rate of education was the highest in Finland within the sectors investigated and the lowest in Hungary.

Because of the change of classification of education in labour force survey in 1998 there are some constraints for creating trends of mobility rates.