Emigration of Slovene researchers and their employment mobility within Slovenia

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SUMMARY

This book is based on the research project »Brain drain of researchers in Slovenia with special emphasis on graduates of »program of young researchers« and »program of young researchers for business enterprise sector«. Institute for Economic Research carried out two studies within this research project, which was leaded by Milena Bevc and financed by the Slovene research agency, Ministry of higher education, science and technology and Government office for development. In this book we analysed the emigration of Slovene researchers and their employment mobility within the country after Slovenia’s EU accession (in the period 2004-2009) compared to the 10-year period prior to accession, and their international professional mobility in 2009 compared to 2004. The analysis of these flows for Slovene researchers is based on an extensive inquiry/surveying of the total number of Slovene research organisations (763). This inquiry/survey was carried out in the period October 2009 to January 2010. Since the same methodology, source of data, questionnaires, etc., were used in the inquiry/survey of 2004 (for observing the abovementioned flows in the period 1. 1. 1995-30. 4. 2004), we could compare the results for both periods and observe trends in 15-years long period. This is valid for researchers in general, since special analysis for so called “young researchers” was done only in 2009. In this 2009-inquiry, 263 research organisations responded to the questionnaire (35% response rate), which employed 69% of the total number of researchers (in “population”). We observe the size/quantity of emigration, profile of emigrants and the effects of these flows on original research organisations. Registered and estimated size (for entire population) of emigration was observed. The registered post-EU accession number of emigrants increased in absolute terms (from 73 persons in 1995-2004 to 90 persons for the period 2004-2009), especially the annual number (from 8 in 1995-2004 to 17 in 2004-2009). The rate of emigration (measured as a percentage of emigrants in the total number of researchers in the respondent organisations at the beginning of survey) remained small (1%), however, with a noticeable increase compared to the ten-year pre-accession period (0.5% in the period 1995-2004). Young researchers represented more than one-third of all emigrants (the percentage ranged from 35% to 42%). The estimated total number of emigrants in population amounts to 131 persons in the period 2004-2009 (in period 1995-2004: 102), and
the estimated average annual number amounts to 25 (increase from 11 in 1995-2004). On the other hand some of the surveyed organisations from natural sciences reported also on the immigration of researchers in the period 2004-2009. The profile of emigrants in the period 2004-2009 was as follows: the majority of emigrants (and among them young researchers) were from large research organisations, especially from the public higher education sector, men, with Ph. D., aged 30 to 40 years (average age was 34, and for young researchers 32), who went abroad in most cases alone (without family/partner); the main reason for leaving the country was better conditions for research work abroad, main destination countries were USA, the Netherlands and Great Britain. The greatest number/percentage of emigrants was from natural sciences (most of them were physicists or chemists) and social sciences (economists). Also among young researchers the highest percentage of emigrants represents those from natural sciences (the greatest number being physicists, chemists, biologists); the second largest group of these emigrants comprises researchers from technical sciences. Compared to those emigrants in the period 1995-2004 the main structural changes as regards all emigrants are as follows: they were on average younger, more educated and moved to a larger number of destination-countries, with young researchers often also to Australia. Some of the (82%) 2004-2009 emigrants for whom information on their location at the time of the survey was available, returned to Slovenia till September 2009 (change of emigration to returned or circulate migration), which translates into 12% for all researchers and 17% for young researchers. The emigration of researchers in the period 2004-2009 did not, according to the management of research organisations (deans, general managers), have a large negative effect on these organisations; on average they consider the effects of this phenomenon “neutral” (balance of positive and negative effects). On the other hand temporary international mobility of researchers brought large positive effects. The analysis of employment mobility of researchers within the country (change of employment in Slovenia) includes the size and structure of this phenomenon. Its size, expressed in relative terms, increased in period 2004-2009 compared to period 1995-2004. Namely the share of mobile researchers in the total number of employed researchers in the respondent organisations at the beginning of survey increased from 3.5% to 7%. But the structure of mobile researchers changed as follows: the percentage of mobile researchers (in total number) within the R&D sector increased (from 30% to 35%) and the percentage of outflow to government administration decreased (from 16% to 11%). The latter outflow of researchers from the science sector (internal brain drain) in period 2004-2009 amounted for “population” to 104 persons. The management of research organisations also offered estimates of both state financed programs of young researchers and the employment possibilities of these researchers. These employment possibilities are (by their opinion) limited within both the research respondent organisations and in the entire Slovenia. After state-funding employment/education of young researchers in their organisation was concluded employment contracts were, in most cases, extended – on a temporary basis. Uncertainty of employment is most probably one of the explanatory factors of outflow of young researchers from the Slovenian science sector – abroad or to non-science sectors within the country.