## Labour demand and state-provided education in Hungary: is there a mismatch?

## GDN Regional Research Competition RRC-V-15 Non-Technical Summary

The aim of the project was twofold:

- (1) to analyze how secondary vocational training matches the occupational structure of labour demand, and whether the has match improved;
- (2) to investigate the determinants of further higher education studies of higher education graduates, and the effect of further studies on labour market performance.

The main findings of the two studies are the following.

## (1) Not Only Transition. The Reasons For Declining Returns To Vocational Education

This paper documents the decline of specific skills provided by vocational training schools during the transition, and investigates its causes. It looks at the case of Hungary. A simple exercise separates returns to specific skills from returns to general skills at the vocational/secondary school level. It finds that post-communist transition brought about a significant increase in the returns to general skills and a significant decrease in the returns to specific skills. In fact, specific skills acquired in Hungarian vocational schools seem to receive no positive returns anymore. These results suggest that general skills are a lot more suited for more turbulent times than specific skills. At the same time, however, returns to vocational education relative to more general secondary education consistently declined with age even under communist times, a relationship further strengthened by the transition. This implies that pushing for vocational education was not optimal even in more quiet times. Governments and young people might have been deceived by the high returns in early ages; but those returns quickly faded away as vocational graduates were not able to upgrade their skills later on.

Occupational mismatch is often cited as the major reason for the declining returns to vocational education. Presumably, soviet-type vocational training prepared for the wrong occupations that are not needed anymore. The occupational structure of vocational education is usually determined by some planning bureau and bargaining with firms. The outcome does not necessarily reflect the actual occupational structure of labor demand and is probably even further from its future structure. I also explored the role of occupational mismatch in detail and finds that it is indeed a severe problem. Only around 45 per cent of vocational school graduates work in their original occupation. The rest are evenly split for those who do not work or work in an occupation that does not require a vocational school degree. At the same time, however, occupational mismatch is responsible for neither the declining returns by age nor the significant devaluation brought about by transition. Specific skills acquired in vocational schools did not lose their value because the occupational structure of labor demand changed. They lost their value because the skill content of jobs changed, and vocational school graduates did not possess enough general skills to upgrade their skill level. It is not the occupational structure of vocational education. It is its content.

## (2) Why to get a second diploma? Is it life-long learning or the outcome of state intervention in educational choices?

This paper analyzes the determinants and labour market effects of further higher education studies of graduates, the factors that induce them to switch to other fields (switching decision) and in comparison the determinants of deciding upon "deepening" their knowledge (to proceed with further higher educational studies in the original field of study) and its labour market consequences. The aim of the paper was to investigate if state intervention, which leads to the inelasticity of the supply of places by field specialization and results in a strong selection of students applying to field specializations with favourable labour market prospects, toward which fields there is a high demand, may result in further higher education studies of graduates. The assumption was that students select a learning path, which maximizes their utility. If they cannot enrol to their most preferred institution/field specialization because the number of places is restricted, they may choose a learning path, in the course of which they first obtain a degree in another institution/field specialization where they apply to in order to raise the probability of admission and where the transferable part of

human capital resulting from their studies is also high. After graduation they continue studying and switch to their preferred field specialization. Based on data from a follow-up survey of Hungarian Higher Education Graduates the paper demonstrates that graduates who obtained their first diploma in other than their most preferred field specialisation are more likely to participate in further higher education studies and to switch to another field. As the set quotas result in ability sorting, less able students are more likely to acquire a 1<sup>st</sup> qualification in a field specialization other than their most preferred one, where they can accumulate more transferable human capital and they plan to switch to another field of study after graduation when their chances get higher. In addition, this paper finds some evidence that those, who switch fields lose a part of their human capital in the short run. The results suggest that state intervention in the supply of field specialities in higher education or the inelasticity of these supplies may lead to further higher education studies of graduates and to a wastage of resources.