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POLICY BRIEF

BUDAPEST INSTITUTE

EARLY TRACKING AND EQUITY IN EDUCATION IN THE VISEGRAD COUNTRIES

Finnish schools came very close to ensuring equal opportunities: only about 8% of the scores on the PISA reading test of 2012 are explained by the students' family background, compared to 12% in the Czech Republic, 15% in Poland and Slovakia and 26% in Hungary (see Figure 1).

Tracking—the sorting of students into different types of schools or classes within the school—is a policy that affects both the efficiency and the fairness of an education system. General or vocational tracks endow students with different skills, so tracking can be seen as a means to achieving a rough match between the skills on offer and the skills in demand. At the same time, tracking tends to decrease the equal opportunities for children of different socio-economic backgrounds in the education system. Sorting children to low tracks at an early age could have a negative effect on the general skills they will acquire at school and also on their long term employability.

The education systems of the Visegrad countries, with the important exception of Poland, are among the most stratified ones in Europe, with early and rigid tracking. Higher status students are more likely to attend early selective tracks, relative to lower status students with similar abilities (Horn 2013). The skills of students attending the different tracks diverge and enrolment in lower tracks is detrimental for the students' achievement (Hermann 2013). Poland, on the other hand, chose to reduce the selectivity of its education system in 1999, postponing tracking until age 15. Test scores reveal a rather spectacular success not only in terms of the reduction of inequality, but also in raising student performance in general (Jakubowski et al. 2010).

If a significant proportion of each new generation enters the labour market with a skill deficiency detrimental to their employment chances, it places a burden on the whole society. In a world characterised by rapid technological change it is particularly effective to improve the level of the general skills of low-ability students, enabling them to learn new sets of specific skills several times throughout their career on the job.

POLICY RECOMMENDATIONS IN BRIEF

→ *Follow Poland's lead in delaying entry into vocational education and extending the period of comprehensive schooling, along with suppressing the basic vocational track, integrating it into vocational secondary education and strengthening the (comprehensive) lower secondary level of education.*

Carrying out such far-reaching reforms may be politically feasible only in relatively exceptional situations (as it was the case in 1999 in Poland). Therefore policymakers in the other three Visegrad countries may need to seek other ways to decrease the skill deficiency of the youth entering the labour market from the lower tracks, such as:

→ *offering additional information and financial support for low-socio-economic status families before enrolment into secondary education takes place;*
→ *providing additional training for teachers in schools serving low-status students, especially in the skills required to teach in heterogeneous classrooms;*
→ *establishing larger schools, in order to limit the concentration of low-status children in some schools. The system of rehabilitation subsidies should make all actors interested in placing disabled workers in integrated jobs in the regular labour market.*

THE LEGACY OF RIGID TRACKING SYSTEMS IN THE VISEGRAD COUNTRIES

Early tracking may hurt disadvantaged children.

Early tracking may improve student performance by creating more homogeneous student groups so that curricula and teaching methods can be adapted to the specific needs and abilities of the students in each group for their optimal progress.[1] However, better performing peers can also improve the achievement of their mates. So, when classes or schools are formed on the basis of students' abilities this alters the composition of the students' peer groups, and lower achieving students might suffer from the lack of better performing peers. Schools for high ability students also tend to attract better teachers—unless effective incentives prevent the development of such differences in teacher quality between school types—, and teacher quality affects student performance. So, tracking increases the difference between the educational outcomes of students via both peer effects and teacher effects, which may exceed any efficiency gains of teaching homogenous classes.

The Visegrad countries inherited similar education systems from their communist past. Following compulsory comprehensive education starting at age 6 or 7 and lasting for eight grades, students were streamed into three types of secondary schools: general secondary schools (4 years), vocational secondary schools (4–5 years) providing a mix of general and vocational education, and basic vocational schools (3 years), without the

1 See Brunello and Checchi 2007 or Manning and Pischke 2006 for a summary of theoretical considerations about tracking.

opportunity to continue to higher education. Selection into these tracks was rigid and based on school grades and sometimes entrance examinations.

Pre-transition education systems used rigid and early tracking.

Reforms following the political transition liberalized the education market. Private (but state-funded) schools, usually targeting the children of higher status families, were allowed to operate alongside public schools. More importantly, with the exception of Poland, general secondary schools were allowed to start eight or six-year programmes, moving the starting age of tracking from age 14 to age 10 (Hungary) or 11 (Czech Republic and Slovakia).

Poland introduced a far-reaching reform in 1999 that expanded comprehensive education from 8 to 9 years, and also changed its structure. Comprehensive schooling is now divided between a six-year elementary school and a three-year lower secondary school, and followed by three years of (ability) tracked upper secondary schooling. This reform is to be continued in 2014, with the further expansion of comprehensive education in upper secondary vocational schools.

Recent reforms tended to further increase early tracking, except in Poland.

EARLY TRACKING HAS REINFORCED SOCIAL INEQUALITY

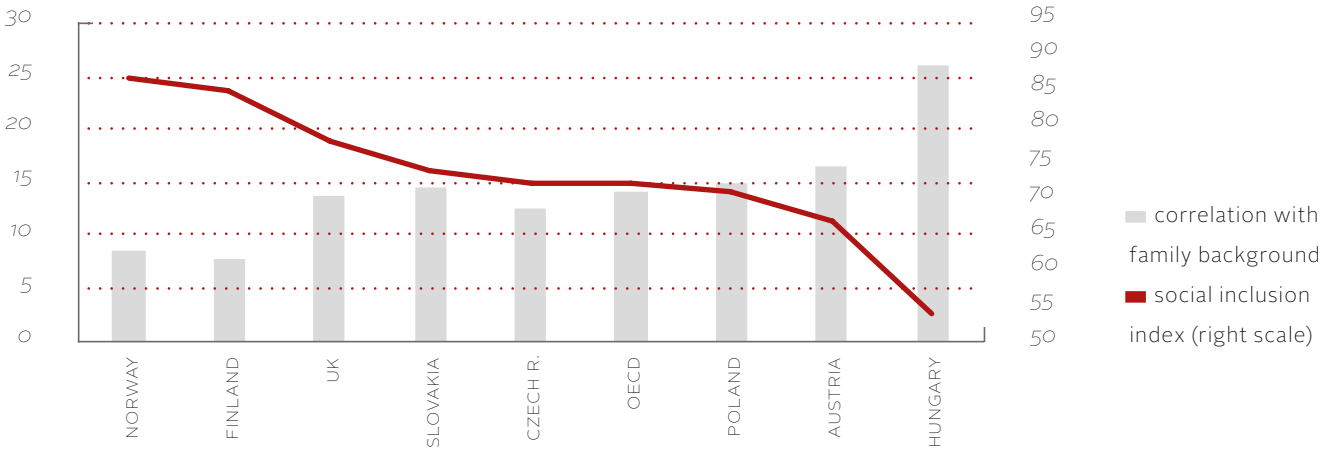
Recent research in Hungary on how enrolment into different tracks (and different schools within tracks) affects students' achievement has pointed to large quality differences between tracks. The mathematical and reading skills of students attending early selective tracks (8-year and 6-year academic schools), improves more between grade 6 and grade 8 relative to students with similar prior academic ability who stay on in mainstream schools (Horn 2013). Comparing the test scores at the end of grade 10 of students who were rejected in a given secondary school with those of students who were accepted, and had similar scores at the end of grade 8, that enrolment in lower tracks is detrimental for the students' achievement, and that the negative effect of basic vocational schools is about twice as large as that of vocational secondary schools (Hermann 2013).

Early selection is far from being status blind: students with a better socio-economic background are more likely to attend academic tracks, and students with poorer background tend to attend basic vocational tracks. In Hungary higher status students are more likely to attend early selective tracks (8-year and 6-year academic schools), relative to lower status students with similar previous test scores (Horn 2013), and the same pattern applies to upper secondary education (Hermann 2013).[2] Critics of early tracking also point out that students are sorted based on very imperfect measures of scholarly

2 Federičová and Münich (2014) show similar results for Czech Republic and Slovakia.

ability, so success at early selection is determined in a considerable part by the early development of non-cognitive skills, such as the perseverance necessary for preparing for admission tests, usually under pressure from ambitious parents (Federičová and Münich 2014). Selection that is partially based on family background combined with divergence of skill development means that early tracking causes inequality in the opportunity offered by the education system to children of different socioeconomic backgrounds (Figure 1). Since poor children are over-represented in the lowest quality basic vocational track, tracking disproportionately hurts them.

Figure 1. Social inclusion and variation in test scores by family background



Source: OECD 2012. The index of social inclusion is calculated as 100*(1-Y), where Y is the intra-class correlation of socio-economic background. Correlation with family background is the overall strength of the relationship between student performance on the PISA reading test and the economic, social and cultural status.

There is not necessarily a trade-off between efficiency and fairness in education, as some evidence points out that in countries where students attend comprehensive schools until a late age academic performance tends to be not only more balanced between children from different socio-economic backgrounds, but also somewhat higher in general (Wößmann–Schütz 2006, Hermann–Horn 2011). The comprehensive reform of the school system in 1999 in Poland brought results that clearly demonstrate this point: it helped the weakest students without hurting the best students, and raised overall achievement. Jakubowski et al. (2010) evaluated the effect of this policy change using data from PISA surveys. The authors found that the scores of likely vocational students (who would probably have been vocational students in grade 9 in the old system) improved by about 100 points between 2000 and 2006 (see Figure 3. below). The improvement of the scores of low-performing students did not harm the performance of high-achievers: the whole score distribution shifted to the right, the share of best performing students grew. The authors argue that, although other elements of the reform also helped improving the scores, delayed entry into vocational education played the major role.

Disadvantaged students usually end up in a lower track and leave school with poorer skills.

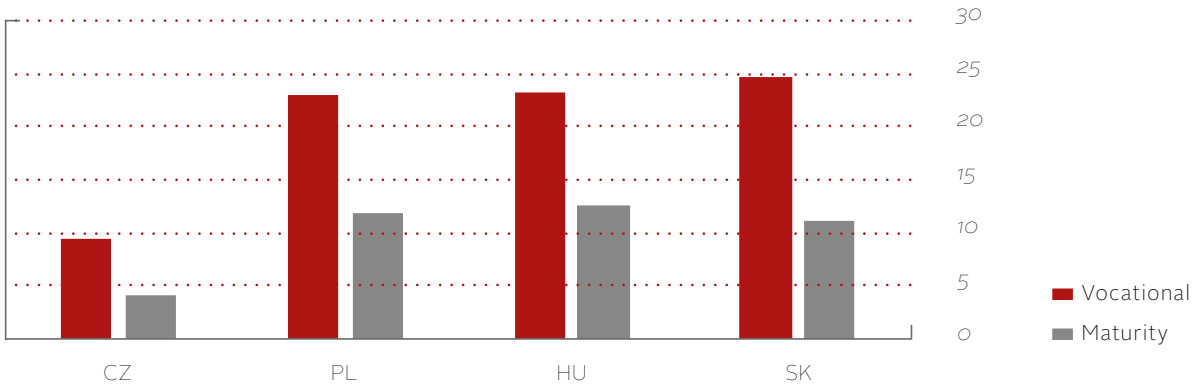
It needs to be noted that the existence of early tracking is not the only factor leading to inequality of opportunity in CEE. The existence of free school choice combined with residential segregation across social groups also leads to large differences both in school quality and social composition across schools within a given track.[3] In Poland, splitting comprehensive education in two had a positive effect on equality in rural areas, where lower secondary schools have much larger catchment areas than elementary schools, and are more socially heterogeneous. Not so in urban areas with a competitive educational market, where hidden tracking (based e.g. on language skills) increased in the transition from the elementary to the lower secondary level (Bukowski 2014).

EARLY TRACKING AND UNEMPLOYMENT

Poor education often leads to unemployment.

A rethinking of early tracking in Visegrad countries has implications beyond the inequality of opportunity. Köllő (2006) has convincingly shown that the relative inability of low-qualified workers, including holders of basic vocational qualifications, to cope with workplace literacy requirements is a major factor contributing to the unskilled unemployment problems in these countries (see also Fazekas et al. 2009). If a significant proportion of each cohort enters the labour market with a skill deficiency detrimental to their employment chances, it places a burden on the whole society. In a world characterised by rapid technological change it is crucial to improve the level of the general skills of low-ability students, enabling them to learn new sets of specific skills several times throughout their career on the job.

Figure 2. Not employed and not in education, % of men aged 25–29, by level of education



Source: EU LFS. Note: maturity includes both general and vocational secondary education that includes a maturity exam (allowing entry into tertiary education).

POLICY RECOMMENDATIONS

→ *Given the evidence in the literature outlined above, following Poland's lead in delaying entry into tracked education and extending the period of com-*

3 Please see Hermann (2013) for a detailed analysis of this issue in Hungary.

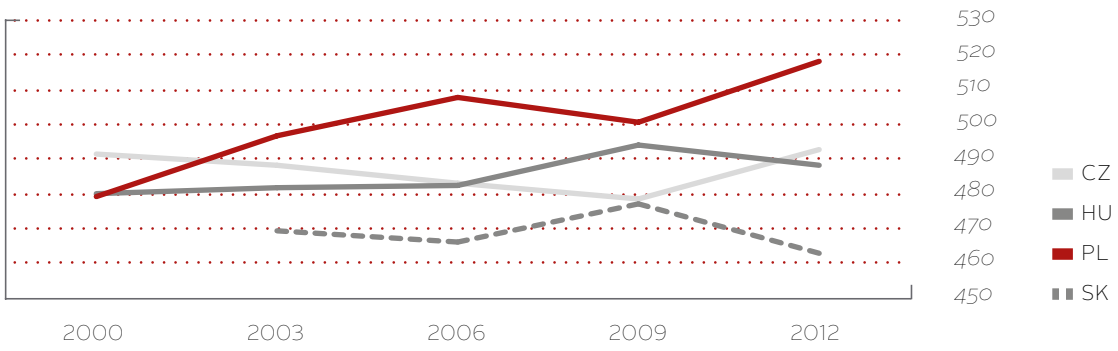
prehensive schooling, would address the problems related to both equity and efficiency in the other Visegrad countries.

→ *As the basic vocational track seems to be the most detrimental to students' academic achievement, it is worth considering integrating it into vocational secondary education, providing education for everyone that would enable them to conclude their studies in secondary education with a secondary school leaving certificate (maturity exam).*

→ *Such a reform, however, would carry the danger of increasing the number of dropouts from vocational secondary schools and the share of workers with no qualification beyond primary education, unless it is supplemented by other measures that prepare low-achieving students to cope with the higher requirements of the upper secondary level. The Polish model strengthening the lower secondary level of education may contribute to resolving this problem.*

Visegrad countries could increase skill levels and employment by following the Polish example.

Figure 3. PISA scores in reading in the Visegrad countries, between 2000 and 2012



Source: OECD

Studies in the political economy of education (cf. Beblavy and Veselkova 2012) indicate that these large-scale reforms may be politically feasible only in relatively exceptional situations, due to the vested interest of higher status players in maintaining the status quo. Policy makers, therefore, should also seek other ways to reduce inequity in the education system and the skill deficiency of the low qualified. If gradual, complementary, and smaller policy changes can demonstrate that increasing equity does not come at the price of decreasing efficiency in education, a larger set of stakeholders can be convinced to support larger scale reforms at a further stage.

Later tracking, teacher training, and support for poor families can help reduce initial disadvantages.

→ *Additional information and financial support is required for low-SES families in the period before enrolment into secondary education takes place. There is evidence that disadvantaged families might not correctly assess the payoffs to sending their children to higher quality schools (Kézdi and Kertesi 2009).*

→ *Teachers in schools serving low-SES students need to be provided with additional training. Teacher training in general should emphasize more the skills required to teach in heterogeneous classrooms (Kézdi and Surányi 2008). Additional compensation to teachers involved in the education of children from low socio-economic backgrounds should be considered.*

→ *In case the elimination of early tracking (at age 10 and 12) proves unfeasible, efforts should be made to adopt policies that prevent the concentration of low socio-economic background students in some schools, e.g. establishing larger schools, or limiting free school choice.*

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