

# Student-school mismatch

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Capable school graduates sometimes choose low-ranking universities which do not match their abilities. According to the findings of HSE University researchers, up to one-quarter of school graduates in Moscow enroll in low-quality universities despite scoring highly on their USE (Unified State Exam, the final school exam and a standard university

admission mechanism in Russia). This academic mismatch limits their life opportunities and often stems from unequal starting conditions in the family and at school. Parents without a university education are not always aware of the difference in quality among universities and therefore cannot give useful advice to their children. Non-elite secondary schools do not normally provide vocational guidance or discuss university admission options with students. As a result, many top academic performers from less privileged families and schools do not even attempt to enroll in high-ranking universities.

## **Inequality Starts Early**

Generally, the USE system lives up to its promise of expanding access to higher education. However, inequality persists due to students' family and school backgrounds. Limiting attitudes projected by their parents and teachers often prevent school graduates from making the right decision: those who could boost their upward social mobility by entering a prestigious university often do not even consider this option.

Having monitored enrolment in Moscow universities for the correlation between students' academic ability and the ranking of universities they choose, researchers found a significant mismatch: up to 28% of students chose a university below the level that they deserved based on their USE score. This finding is striking, given that students in Moscow enjoy 'the widest range of options for entering Moscow-based universities; unlike aspiring students from the provinces, Muscovites do not need to relocate to attend the university of their choice,' says the study co-author Ilya Prakhov [www.hse.ru/en/staff/prakhov](http://www.hse.ru/en/staff/prakhov).

In the regions, the rate of mismatch between the academic potential of students and the quality of universities they choose may be even higher. Not many aspiring students take the risk of applying to a university in another city. Educational migration is constrained by what the [student's](#)

family can afford; local living standards also play a role, as regions with growing economies and good job opportunities are more likely to retain young people.

This new research is based on a sample of 718 observations from the HSE's Trajectories in Education and Careers longitudinal study (Moscow panel). The researchers compared individual students' USE scores in the school subjects required for university admission against the quality of enrolment for their chosen university, i.e. the average USE score of all students admitted to subsidized slots in this university. A positive difference between a student's USE score and the average USE score of all students attending their university indicates an undermatch, i.e. a choice of university below the student's ability.

## **How Can You Tell That Your Child Has Undermatched?**

Suppose your son scored 75 in Russian, 85 in Mathematics and 80 in Physics, giving an average USE score of 80. Suppose further that the average USE score of students attending his university ranges between 65 and 75, averaging 70. By subtracting the university average from your son's USE score, you can see that he has undermatched by 10 points ( $80-70=10$ ) and could have entered a higher-quality university where the students' average USE score is 80.

While undermatching, according to Prakhov, 'only affects one-quarter of school graduates, inequality in access to higher education can occur at earlier stages in secondary school, because USE scores often depend on family and school characteristics.'

## **Doomed by Parents**

A key factor in undermatching is family influence. It was proven more than half a century ago that family background has a powerful impact on children's education.

Parents' socioeconomic status (SES)—their level of education, income and cultural involvement—tends to 'program' their child's path in life. The family largely determines a youngster's achievements in school and their desire or reluctance to graduate from high school and pursue higher education.

Parents can underestimate their children's abilities and discourage attempts to pursue higher education—or suggest less prestigious universities which are easier to enter. This often happens to students from poorer and less educated families. Not having first-hand experience of studying at a university, parents may not have enough information on preparation and enrolment to provide proper guidance to children. This situation hinders intergenerational mobility and causes children to follow the path of their parents and fail to improve their socioeconomic status.

Termed parentocracy by social scientists, this creates a system where parents, voluntarily or otherwise, determine the future of their offspring based on the family's socioeconomic background and attitudes rather than the child's individual abilities and achievements.

In addition to this, according to Prakhov, a student's family can affect their USE results, since "a lack of parental investment in the child's human capital (knowledge and skills) tends to limit the latter's academic achievement."

In contrast, young people from high-status families are at an advantage and far less likely to undermatch. This finding is confirmed by other studies stating that children from families with high professional and

educational status are twice as likely to enter a prestigious university as their peers from low-resource families.

Researchers explain this through three family-related factors: strong family attitudes towards a good education, parental investment in their children's studies and the child's high academic performance associated with it. Awareness of available [higher education](#) options also makes a difference: it has been found that more informed students are less likely to attend low-quality educational institutions.

## **Power of Money and Knowledge**

Parents with high socioeconomic status are prepared to hire private tutors and pay for university preparation courses for their child. By contributing to students' academic performance and confidence, this additional learning helps them score better on the USE, understand their options and avoid undermatching. According to Prakhov and Sergienko, high-priced 'intensive' courses and high-quality tutors ensure an almost perfect match between student and university.

A family's culture is often measured by the number of books in the home library. "Books are an essential resource for investment in human capital," the researchers comment. "In a home with lots of books, a curious child is far more likely to take one from the shelf and read it." Students who read many books are less likely to enter a low-quality university. Indeed, as far as family factors are concerned, inequality in access to education begins long before university, with the bookshelf in one's parental home.

## **School as Sorting Machine**

Not only [family](#), but school also contributes to inequalities in students'

choice of educational path and resulting prospects in life. Quite often, the educational path is decided from the first grade, with more affluent families choosing prestigious lyceums and gymnasiums for their children, and families with limited means choosing schools near their home. Both choices can determine the child's future, especially given that Russian students rarely switch schools, and many stay in the same school until graduation.

Tracking, or selecting a particular academic track and perhaps switching to a certain type of school (e.g. one with a focus on mathematics or foreign languages, etc.), normally occurs in high school and is often linked to families' socioeconomic status, with less resourced families choosing ordinary rather than elite schools. In a few countries, tracking takes place earlier: Germany and Austria assign children to specific tracks at age 10, and Russia is the world leader for pre-tracking, with educational paths determined at the age of six or seven.

Public education effectively perpetuates existing social inequalities, where children of wealthier parents benefit from the best school and university education. According to Prakhov and his co-author Denis Sergienko, graduates of the 300 top-ranking secondary schools in Moscow are less likely than others to undermatch with their chosen university. "Attending an elite rather than ordinary school contributes significantly to the student's USE score and reduces the risk of undermatching," the researchers emphasize.

Also important is the quality of teaching. Good teachers know how to support their students' motivation and confidence. It has been found that teachers who hold their students to high standards help them develop higher self-esteem.

## **In Search of a Solution**



What then needs to be done to help all aspiring undergraduates make the most of their academic ability and performance? According to experts, schools and families should work together to change the attitudes and improve the knowledge of low-SES parents. Steps need to be taken to minimize the limiting influence of parental background on the choice of educational path for their children.

The attitudes of some schools which tend to be biased against children from low-SES families should also be addressed. It has been shown that teachers and [school](#) administrators sometimes perceive parents' low level of education as a signal that their children's educational aspirations are also low, and such students are not given sufficient attention. According to Prakhov and Sergienko, improving teacher performance in non-elite schools could increase the chances of success for their students.

Schools could also offer elective classes focusing specifically on preparation for the USE, for the benefit of low-income students. And finally, students need to be informed and updated on available options of university enrolment and the overall situation in the educational market.

**More information:** Ilya Prakhov et al, Matching between students and universities: What are the sources of inequalities of access to higher education?, *European Journal of Education* (2020). [DOI: 10.1111/ejed.12389](#)

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