

Study 14/2023

Secondary School Admissions: A Sophisticated Mechanism or a Big National Lottery?²

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Summary

- The spring 2023 secondary school admissions process has fully revealed the shortcomings of the established admissions system. The combination of a baby boom and a large mismatch between the structure of supply and demand, the system has left many children and their parents unnecessarily uncertain about secondary education. Although the vast majority of applicants eventually get into a secondary school, the mechanism in place to match applicants with schools is inefficient and inequitable. The system forces students and parents to strategize ways to select schools, and disadvantages children of less informed and less sophisticated parents, contributing to high inequalities in access to education over the long term. The system also generates highly skewed information on the structure of demand, which complicates management of admissions.
- A major change in the admissions procedure is therefore planned for spring 2024. It is expected to eliminate at least some of the main problems. Electronic application should simplify the process, and will allow pupils to apply to three schools instead of two. Prioritization of schools should then allow for automatic enrollment of those admitted. It should also minimize the chaotic second round period when pupils who are not enrolled in the first round apply for vacant places.

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- However, the exact form of the matching mechanism is not yet known, nor has it been addressed in the debate on changes to the admissions procedure. The discipline of mechanism design at the interface of economics and game theory analyses matching mechanisms in admissions and evaluates them in terms of the quality of the outcome achieved. In particular, it assesses whether the process is efficient and the resulting matching fair to the students.
- The planned changes can be implemented through various matching mechanisms. Different mechanisms (algorithms) match pupils to schools differently based on applications and results of entrance exams. However, the algorithm that is chosen has a large impact on the final matching. The algorithm also affects the actual decision-making of pupils and parents, as it forces them to strategize, further complicating the process.
- Using a naive matching algorithm roughly equivalent to current practice would ensure that the system will continue to suffer from its current problems. Alternatively, a delayed acceptance algorithm that is widely used around the world could be applied, and would much better meet the basic quality criteria from a theoretical perspective: it is stable and fair, sufficiently respectful of learner preferences, and robust to strategizing. Therefore, the actual matching mechanism should begin to be given sufficient attention in the debate about changes in admissions, and data evaluation should be carefully implemented through the deferred admission mechanism.
- A significant problem in Czech education is the strong dependence of pupils' educational attainment on the socio-economic status of the family and the education of the parents. Certain aspects of the admissions procedure may further exacerbate this inequality and reinforce the phenomenon of the so-called "lost Einsteins" - highly gifted individuals from a lower socio-economic background who, for various reasons, do not realize their potential and do not fully apply themselves in society. A uniform entrance exam that would be compulsory for all primary school pupils and implemented before the actual secondary school application process would help to identify such pupils and support them in choosing their future educational path. Pupils today do not have reliable information about their own abilities or about individual secondary schools. Therefore, their decision-making depends heavily on parental input, disadvantaging talented pupils who lack strong family support.
- The problem of the lack of quality information on the state of Czech education is also related to the large inequalities in education. The true extent of the mismatch between the structure of supply and demand for secondary education is unknown, as the current system of admissions has forced strategic choices and generated very skewed data on demand. The consequence is a lack of information on the part of the founders and the central coordinating authority of the Ministry of Education. An appropriate matching mechanism would eliminate the problem of biased data. At the same time, it is desirable to use data collected from admissions in a targeted way for planning and development, and to better adapt the supply of secondary education to demand for it in the future.
- In the longer term, given the changes in society, it is crucial to strengthen the role of general education across secondary schools and to enable pupils to specialize. Pupils' future lives should depend above all on their long-term attitude to learning, ability, and effort, rather than on the results of one or two tests. Everyone has the right to freely choose a career and prepare for it, but inappropriate admission procedures and insufficient school capacity limit this right.