

# LATE Estimators under Costly Non-compliance in Student-College Matching Markets

*Marin Drlje and Štěpán Jurajda \**

1 · 31 · 2021

## Abstract

A growing literature exploits a feature of centralized college admission systems where students with similar admission scores in a neighborhood of a school's admission threshold are or are not offered admission based on small quasi-random differences in admission scores. Assuming that the students at the margin of admission differ only in the treatment assignment, this literature relies on admission scores to instrument for admission or graduation. We point out that non-compliance with the centralized matching assignment typically corresponds to enrolling in one's preferred program a year after the initial assignment, introducing significant non-compliance costs. We show that with costly non-compliance, the *exclusion restriction*, the key assumption of the LATE theorem, is violated, leading to biased estimates when instrumenting for graduation, i.e., for a treatment taking place after non-compliance costs are incurred. We use data from a student-college matching market in Croatia to illustrate the empirical importance of this potential source of bias and propose a method inspired by Lee (2009), which recovers the treatment effect bounds under the assumption that the costs of non-compliance are not related to the treatment assignment.

---

\*CERGE-EI, a joint workplace of Center for Economic Research and Graduate Education, Charles University and the Economics Institute of the Czech Academy of Sciences, Politickych veznu 7, P.O. Box 882, 111 21 Prague 1, Czech Republic.

E-mail: marin.drlje@cerge-ei.cz stepan.jurajda@cerge-ei.cz. Jurajda is a Research Fellow at IZA, Bonn. We thank Thomas Le Barbanchon, Michal Bauer, Alena Bicakova, Henry Farber, Randall K. Filer, Vasily Korovkin, Dejan Kovac, David Lee, Andreas Menzel, Nikolas Mittag, Daniel Munich, Christopher Neilson, Christian Ochsner, Seth Zimmerman, Jan Zápal, Zhuan Pei and Krešimir Žigic for their many useful comments. We are also grateful to the Ministry of Education of Croatia and ASHE (AZVO) for access to their administrative data.