Catching Cheaters in Hungary - estimating the ratio of suspicious classes on the National Assessment of Basic Competencies tests

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Non-Technical Summary

This study estimates the ratio of suspicious-cheating classes. No previous studies have examined the ratio of potential cheaters on student testing in the Eastern European region.

The paper adapts Brain Jacob and Stephen D. Levitt's "Rotten Apples" (2003) method of cheating detection to the Hungarian National Assessment of Basic Competencies data. The Jacob-Levitt method suggests a new way of finding *suspicious answer strings* in a multiple choice student test. Their method cannot be straightforwardly implemented in the Hungarian data. This is why this paper proposes a new indicator: *unusually small standard error*. This indicator compares the within class variance of a simulated database with the variance of the real data. If the standard error of the real data is smaller than the simulated the class is considered as suspicious. Combining the *suspicious answer string* and the *unusually small standard error* indicators the study identifies about 1,5-1,8% of classes as potential cheaters. This figure is comparable to that of the Jacob and Levitt study.

 The second part of the study tests the suggested method with three alternative methods. These robustness checks supports that the combination of the two measures, the unusually small standard error and the suspicious answer strings, indeed finds the suspicious classes.

Reference

Jacob, B. A., & Levitt, S. D. (2003). Rotten Apples: An Investigation of the Prevalence and Predictors of Teacher Cheating. *The Quarterly Journal of Economics*, *118*(3), 843 –877.