

The Causal Effect of Shadow Education:
An Empirical Evaluation of *The Chance for Children* Education
Voucher After the Great East Japan Earthquake

Hideo Akabayashi, Hiroko Araki, Makiko Nakamuro, Ryuichi Tanaka¹

Abstract

It has been difficult to estimate the causal effects of shadow education. Using the data of privately-funded education voucher program for children severely affected by the Great East Japan Earthquake, we estimated the effect of receiving the education voucher on both cognitive and non-cognitive outcomes. The data is unique since a small number of vouchers are assigned randomly, providing us an opportunity to identify the causal effect transparently. Although it is difficult to draw any definitive conclusion given the small sample size, on average we did not find statistically significant effect of receiving education voucher on cognitive achievement. However, in a small randomized sample, we found some evidence that students with no prior experience of private tutoring tend to achieve higher by receiving the voucher. We also found some evidence that receiving voucher tends to lower QOL of high school students, and if they did not have any prior experience of private tutoring, receiving the voucher tends to lower self-esteem.

JEL classification: I21, I22

Key words: Shadow Education, Educational Voucher, Causality, Randomized Control Trial, The Great East Japan Earthquake

¹ Keio University, Keio University, Keio University, National Graduate Institute for Policy Studies. Corresponding author: Hideo Akabayashi, email at hakab@econ.keio.ac.jp. The authors gratefully acknowledge the financial support from Grants-in-Aid for Scientific Research (B) 24330090. The authors would like to thank the Chance for Children for providing us with detailed administrative data, and Withus Co. and Fujii Shobou for generously allowing us to use their original standardized tests. The views and opinions expressed here are those of the authors and not necessarily those of the Chance for Children or any of its stakeholders. All the remaining errors are ours.