

**The Effect of Shadow Education Vouchers  
after the Great East Japan Earthquake:  
Evidence from a regression discontinuity design\***

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**Abstract**

Shadow education vouchers, which beneficiaries flexibly use for any pre-registered institutions such as cram schools and one-to-one tutoring, may be an effective method as means to support disadvantaged children. In this paper, we empirically estimate the effects of shadow education vouchers provided in the area affected by the Great East Japan Earthquake mainly on cognitive skills by utilizing a regression discontinuity design. Our results show it has a positive impact on academic achievements and study hours on holidays. In addition, the impact is much larger for children living under poverty conditions.

*Keywords:* Shadow education voucher, Cognitive skill, Child poverty,  
Regression discontinuity design, Randomization inference

*JEL classification:* I24, I26, I38, C21

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