Understanding Heterogeneous Impact of Medicaid Expansion Using Generalized Random Forest

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Abstract

In this paper, I provide new evidence of Medicaid's effect on several outcomes beyond physical health. Specifically, I study the heterogeneity of Medicaid's effect on self-reported happiness, self-reported depression, and self-reported out-of-pocket medical costs. Using Generalized Random Forest (GRF), a causal Machine Learning method, I estimate the effect of the Oregon's 2008 Medicaid expansion as a non-parametric function of individuals' characteristics. I find that age, weekly working hours, and urbanicity create considerable heterogeneity in Medicaid's effects. My results show that the Medicaid coverage causes the older population who work more than 30 hours per week to be happier. It also causes adults living in rural areas to incur less out-of-pocket medical costs; and finally, young adults who work at least several hours per week to be less depressed. My results also shed light on some of the mechanisms through which Medicaid may affect these outcomes. I show that the pent-up healthcare demand among older people, education-related efficient use of health services among young adults, and differential health care competition in urban and rural areas are plausible mechanisms that can explain heterogeneity in Medicaid's effects. My results can help policymakers to better understand the effect of Medicaid expansion and design targeted public insurance programs.