Disentangling Sources of Variation in C-Section Rates

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Abstract

Prior literature documents large disparities in health care practices, utilization, and outcomes across geographies within the United States. Variation in the use of C-sections is a prominent example, however it is unknown the extent of this variation that is due to demand-side factors (e.g., patient risk factors or preferences) versus supply-side factors or "place effects" (e.g., physician practice style or incentives). In this paper, we estimate the share of variation in C-section rates that is attributable to the county of birth. Most of the literature identifying causal effects of place in health care does so by tracking individuals who move across locations. We develop a new approach leveraging closures of obstetric units across the United States between 1989 and 2019, which reallocate mothers to counties with different C-section rates. We implement this approach using the instrumental variables framework of Abaluck et al. (2021). Our results suggest strong supply-side effects: 90% of the variation in first-birth C-sections is due to the county of birth.