Online Proceedings

POSTER SESSION 2

Commons West, Easel 38

1:00 PM to 2:30 PM

Effects of Population Density on the Impacts of Mass-Transit Infrastructure on Regional Unemployment

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For many rising metropolitan cities across the United States, the implementation of a major mass-transit system is a potential means of combating unemployment by connecting citizens to jobs that might be otherwise inaccessible. However, relatively little is known about how the effects of mass-transit systems scale with population density, which may deter many cities that stand to gain from investing in such a project. This study examines the effect of population density on the impact of Commuter Rail, Light Rail, and Street-Car transit systems on unemployment rate across every metropolitan city in the United States, in order to enable more informed policy and investment decisions. In applying a difference-in-difference regression model to panel data that spans 192 cities from 1990 to 2016, it is revealed that the introduction of a mass-transit system results in a 19% average decrease in unemployment rate. In addition, it is shown that the existence of a mass-transit system reduces the effect of each percent increase of population density in driving up unemployment by 64%. This study's findings underscore the viability and effectiveness of mass-transit infrastructure as a means of combating rising unemployment rates by providing citizens with a cheap and consistent method of connecting with a wider selection of job opportunities.

POSTER SESSION 2

Commons West, Easel 37

1:00 PM to 2:30 PM

Supply Side Responses of the Affordable Care Act

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In this economics thesis, I addressed one of the effects that the Affordable Care Act has had on US Health Care since its full implementation in 2014: supply side effects. Specifically, I answered the following question: what is the effect of the implementation of the Affordable Care Act on patient wait times in primary care offices? In order to narrow the field of research, I focused on the tier of the ACA that called for increased Medicaid expansion. Since Medicaid has not been expanded evenly in all states, it has created a robust control group for causal studies such as this. I used a difference-in-difference model and a multivariable regression to establish causality between Medicaid expansion and increased patient wait times. I used data gathered from the Current Population Surveys from 2004, 2009, 2014, and 2016, in 15 different cities around the US (some faced increased Medicaid expansion, and others did not). The dependent variable data (new patient wait times) were extracted from a 2017 Merritt Hawkins Survey which found the wait times for new patient appointments in different medical services across the 15 different cities for the four different years. The different services are as follows: cardiology, dermatology, obstetrics-gynecology, and orthodpedic surgery, and family medicine (where wait times were only measured in 2009, 2014, 2017). This thesis has been fully developed over a yearlong process of data collection and analysis. My findings highlight areas of the ACA that can be improved to accommodate the proven increased demand for health care, especially given that the supply of health care services responds slower than demand for health care, leading to longer patient wait times.