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Research Statement

My current research examines health topics related to government policy and public health. Below I provide a description of my current preliminary research, including my job market paper, and a brief summary of my previous research. My preliminary research is indicative of the type of research I am likely to pursue over the next several years.

Job Market Paper

My job market paper examines the extent to which smoke-free air legislation and cigarette prices impact the number of cancer, cardiovascular, and respiratory hospitalizations in the United States. I built a longitudinal dataset of hospital discharges at the county level covering the years 1991-2014, allowing me to measure the effects of each tobacco control policy on health outcomes for up to 80% of the US adult population. I employ a Poisson model with county and year fixed effects and robust standard errors, while controlling for county demographic, economic, and environmental characteristics. Results suggest that smoke-free air legislation leads to statistically significant declines in breast cancer, coronary atherosclerosis, and asthma hospitalizations. Statistically significant effects are generally not observed for acute myocardial infarction hospitalizations or the counterfactual outcome appendicitis. Increases in the real cigarette price lead to fewer hospitalizations for all diagnoses, and are statistically significant for asthma and coronary atherosclerosis. For appendicitis, the real cigarette price has no effect on the number of hospitalizations. All findings are generally consistent across age subgroups and model specifications.

This study is the first to examine the effects of comprehensive smoke-free air legislation and county level cigarette prices on cancer, cardiovascular, and respiratory hospitalizations in the United States. It is also the largest in the literature to date, examining up to 40 states from 1991-2014. The longer time span and larger number of states allows for a more accurate estimation of the impact of each tobacco control policy, and presents results representative of the general population. Finally, it is the first economic study to examine the effects of tobacco control policies on breast cancer and coronary atherosclerosis hospitalizations.

Work in Progress

My dissertation work extends the analysis of my job market paper by including additional diagnoses for tuberculosis, prostate cancer, lung cancer, acute cerebrovascular disease, hypertension, COPD, arterial embolism, peripheral and visceral atherosclerosis, and artery aneurysms. This large scale, county level study provides the most accurate estimates in the literature to date, and is the first economic study to examine hospitalizations for tuberculosis, prostate cancer, lung cancer, hypertension, arterial embolism, peripheral and visceral atherosclerosis, and artery aneurysms. Subgroup

analysis is performed to determine whether the health effects vary across working age adults and the elderly.

I am in the beginning stages of another project that examines the impact of a smoking ban on health and behavioral outcomes. In 2005, the state of California enacted legislation prohibiting tobacco use in all state run prisons, while exempting nearby federal correctional facilities. Anecdotal evidence in media reports suggests similar laws in other states have led to decreased incidence of asthma, as well as riots among inmates forced to quit smoking. Data from the California Department of Corrections and the Federal Bureau of Prisons are used to estimate a difference-in-difference model. Outcomes variables include the number of monthly cases of asthma, COPD, and adverse behavioral events among inmates at the facility level from 1995-2014. Since this study is still in progress, I do not yet have conclusive results. However, this research is particularly policy relevant, as only 20 states currently prohibit tobacco use on all facility grounds.

Previous Research

In this project, I explore whether public housing demolitions in the city of Chicago led to short-run changes in student test scores at the school level. I employ a difference-in-difference estimator, comparing the standardized test scores of 3rd and 7th grade students in schools affected by student displacement with unaffected schools located nearby. Results suggest that at the school level, there is no change in test scores resulting from public housing demolitions.

Another previous study measures the effect of smoke-free air legislation on acute myocardial infarction and acute cerebrovascular disease hospitalizations in Illinois. Using longitudinal panel data from the city of Chicago and the surrounding seven collar counties from 1994-2010, I estimate a fixed effects regression model with county level demographic and economic controls. Results suggest that smoke-free air legislation leads to a 3% reduction in acute myocardial infarction hospitalizations among working age adults, and has no effect on acute cerebrovascular disease hospitalizations.