The O’Neill School of Public and Environmental Affairs at Indiana University Bloomington presents

Fall 2021 Honors Thesis Symposium

Friday, December 3rd

9:30 a.m. – Welcome Remarks
9:40 a.m. – 10:55 – Session One
11:00-12:15 – Session Two
12:15 p.m. – Closing Remarks
Welcome Remarks
R.J. Woodring
Associate Dean for Educational Programs
Director, Undergraduate Programs Office

Session One

Panel A – Room 167
Rhetoric and Information Framing

9:40
Sydney Akers
Climate Change Communication: An Analysis of Fear Appeals
Faculty advisor: Landon Yoder

9:55
Matthew Eitel
Speaking through security or health? Understanding the effects of framing on climate change policy support
Faculty advisor: Shahzeen Attari

10:10
Taylor Longhitano
Political Polarization in Illinois: How the Rhetoric of Elected Officials Changes Over Time
Faculty advisor: Thomas Rabovsky

10:25
Q & A – Discussion for the full panel
Panel B – Room 169
Workforce Development

9:40
Abby Bruno
Covid-19 and Remote Work: Cause for Lower Productivity of Employees?
Faculty advisor: Cheryl Hughes

9:55
Sophia Downey
Applying Career and Technical Education Frameworks to Corporate Workforce Development Programs
Faculty advisor: David Audretsch

10:10
Q & A – Discussion for the full panel

Session Two

Panel A – Room 167
Accessibility, Equity, and Justice

11:00
Claire Malone
Identifying Areas of Environmental Racism in Indiana Counties
Faculty advisor: Anthony Liu

11:15
Maggie Reeves
Impacts of Broadband on Educational Outcomes
Faculty advisors: Ashlyn Nelson and Dave Warren

11:30
Emily Grecu
Emissions & Equity: Examining the effect of a carbon tax on Indiana Households
Faculty advisor: David Konisky
11:45
Q & A – Discussion for the full panel

Panel B – Room 169
Understanding Change Over Time

11:00
Amanda Chadwell
Variables Affecting Cover Cropping Acreage in Indiana
Faculty advisors: Mallory Barnes and Landon Yoder

11:15
Karunya Surendar
Integration and Uncompensated Care: Evidence from System Acquisitions of Nonprofit Hospitals
Faculty advisor: Seth Freedman

11:30
Riley Melton
Changes in Urban Healthcare Accessibility: An Analysis of Health-Related Outcomes Using a Synthetic Control Approach
Faculty advisor: Alex Hollingsworth

11:45
Q & A – Discussion for the full panel

Closing Remarks
Amanda Rutherford
Associate Professor
Director, O’Neill Undergraduate Honors Program
Climate Change Communication: An Analysis of Fear Appeals

Fear appeals are scattered throughout the mass media to communicate the growing threat that climate change poses to humanity; it is almost impossible to research climate change without encountering a fear-focused narrative of the future. Some literature suggests that fear appeals are an effective way to promote individual action, but there is also research that explains why fear appeals are counterproductive when trying to encourage action. My research examines the way in which individuals interpret fear appeals through a qualitative analysis of 13 semi-structured interviews that were conducted with young adults living in the United States. The results of this study showed that almost all young adults have encountered some form of fear appeals in the media; however, this exposure to fear appeals rarely alters their individual action. In fact, when looking at individual action taken to combat climate change, there is almost no variance among young adults.
Covid-19 and Remote Work: Cause for Lower Productivity of Employees?

The purpose of this study is to inform the public on the effect working from home has had on workplace productivity since COVID-19. This research will hopefully help managers expect and strategize ways to keep productivity high, even during such an uncertain time. Although working from home has commonly been an option for employees, it has just recently taken a whole new form. With today’s technology, it makes it much more possible to achieve every goal and deadline within the confines of your home with applications such as Microsoft Teams and Zoom. Many organizations are sticking with remote work as global companies can more easily connect to those outside their time zone. Addressing the change in the perception of productivity is important for employers, employees, teams, organizations, and other HR professionals. Analyzing productivity (average output per period divides by the costs incurred or the resources, such as personnel, consumed in that period) has its limitations which will be discussed by past research in the area. After analyzing 133 results from a 5-question survey, I found that productivity has stayed the same for 39% of people, decreased for 33%, and increased for 27%. My research did not stop there, as I decided to address what mitigating factors caused these responses. The main distractions employees mentioned that occurred while working from home were technology (27 times), family members (21 times), and chores (12 times).
Variables Affecting Cover Cropping Acreage in Indiana

A cover crop is something you plant for your soil instead of for your plate. Cover cropping is becoming an increasingly common sustainable practice for farmers to help improve their overall soil health, yet there are numerous challenges they face implementing them effectively. Factors affecting installed acreage include crop prices, weather, and cost-share funding. Researchers have delved into the environmental, economic, and social factors that affect cover crop acreage on a nationwide, or statewide scale. However, there is little research on how these factors affect acreage at the county level within each state. This study identifies the statistical significance of relationships using an analysis of variance (ANOVA) model between installed cover crop acres in each of the 92 counties of Indiana from 1997 to 2020 and independent variables of cost-share funding and crop prices. This analysis indicated that cost-share funding has the greatest statistically significant relationship with installed acres per county and that corn selling prices have a greater statistically significant relationship with installed acres than winter wheat or soybean prices. These findings can then help to identify the greatest financial enablers and barriers to cover cropping for Indiana farmers.
Applying Career and Technical Education Frameworks to Corporate Workforce Development Programs

As job growth has increased in recent years and wages have remained largely stagnant, a large portion of the American workforce has been left behind, particularly workers from underrepresented and under-resourced neighborhoods. One-third of American companies report having open positions for which they are unable to find qualified workers, this is particularly true of middle-skill jobs. The growing skills gap in the United States poses a problem as the wealth gap increases, unemployment, and underemployment rise, and productivity falters below an optimal level. To address this gap, some companies have created in-house workforce development programs to train workers for middle-skill jobs and create a pathway to sustainable wages. Through the use of interviews, this research examines three companies in Indianapolis: Salesforce, IU Health, and OneAmerica, to assess how they have best been able to implement similar programs. This research focuses on programs within these companies that focus specifically on the development of young adults. Each of the three companies is examined through its integration of academic and work-based learning, implementation of mentorship, collaboration with community partners, support for continued education, and the end result of the program.
Speaking through security or health? Understanding the effects of framing on climate change policy support

Research shows that selectively emphasizing certain aspects of climate change, a process known as framing, can help effectively communicate information and persuade different segments of the United States’ population. While research shows that certain frames are more effective at persuading climate skeptics (e.g., a public health frame), currently very little research on a national security frame exists. Using an online survey experiment (N=1,200), this study contrasts a national security frame, a public health frame, and a control no-information frame (3 conditions) to test effects on support for mitigation and adaptation policies, as well as levels of perceived risk from the adverse effects of climate change. Results from the study and implications for future research are discussed.
Emissions & Equity: Examining the effect of a carbon tax on Indiana Households

In this paper, I aim to determine if a proposed $40/ton of carbon tax, similar to the Baker-Schultz Carbon Dividends Plan, will have a disproportionate effect on Indiana households at varying income levels. In other words, will households with lower incomes be forced to pay a higher percentage of their income compared to households in high-income brackets? Carbon taxes and other market-based strategies are becoming increasingly viable options to mitigate the effects of climate change as countries prepare to meet the ambitious goals of the Paris Climate Agreement (Eberhard, 2017). Using data from the Energy Information Administration (EIA), a state electricity portfolio for the state of Indiana was created to find the state’s energy mix. Once this was found, the average household consumption by income level from the EIA Residential Energy Consumption Survey (RECS) was manipulated to find the average tons of carbon emitted per household. Finally, the $40/ton of carbon tax was applied to each income level to see how much each income level’s energy expenditures would increase. It was determined that low-income households are more affected by a carbon tax because a higher percentage of their income will go towards such a tax.
Political Polarization in Illinois: How the Rhetoric of Elected Officials Changes Over Time

Nationalization theory suggests that politics at all levels of government are increasingly viewed through a national lens. At the federal level, the rhetoric used to describe members of the other party in Congress and the presidency has become increasingly negative, providing evidence of greater polarization. Is the same phenomenon occurring at the state level? Using sentiment analysis on candidate-endorsed Illinois gubernatorial campaign ads from 2010, 2014, and 2018 election cycles, this study examines changes in the frequency of negative rhetoric directed at opposing candidates, with a particular focus on trajectories by party. Results will provide evidence of the relative level of political polarization at the state level and will suggest implications for reforms related to democratic stability.
Identifying Areas of Environmental Racism in Indiana Counties

This paper will define and identify the areas of environmental racism in counties of Indiana. It will focus on air quality (as it relates to ozone and particulate matter pollution) being the indicator of environmental racism and it will differentiate the counties based on air quality and proportion of the county population that is of a minority group. The study will achieve this by analyzing which counties have low air quality and a high proportion of people of color in the population. Then, the paper will give insight into recommendations that would promote environmental justice in these areas that also have been proven to be successful in past areas of environmental racism.
Changes in Urban Healthcare Accessibility: An Analysis of Health-Related Outcomes Using a Synthetic Control Approach

Chicago mayor Rahm Emanuel’s 2012 decision to close six of the twelve municipally funded mental health clinics were met with historic public dissent from healthcare practitioners and patients alike. While the immediate reduction in healthcare accessibility for thousands of Chicago residents was analyzed under a qualitative lens, the long-term effect of the policy decision on social outcomes in the city is yet to be understood from a quantitative standpoint. The empirical objective of this research is to determine the causal effect of changes in urban mental healthcare accessibility on mental health-related social outcomes in the city of Chicago. This research serves to contribute to a limited body of research on mental healthcare accessibility in the urban environment, as well as to inform activists and policymakers on a relevant public policy issue. This analysis relies upon the synthetic control approach to compare treated time-series data in Chicago to a synthetic prediction of untreated outcomes to determine the causal effect of the policy decision. The application of the synthetic control approach to this analysis provides an estimation of the causal relationship between an abrupt change in mental healthcare accessibility and social outcomes in the urban environment. Although the results of the analysis depict a clear change in the treatment variable after the clinic closures, limitations in the treatment data lead to inconclusive results regarding a specific treatment effect.
Impacts of Broadband on Educational Outcomes in Indiana

Education policy has been the topic of conversation in regards to childhood inequity for decades. This paper explores broadband access as another factor widening the gap in educational inequality between different income areas. To explore broadband as a factor, census data describing the percentages of families with broadband access in Indiana counties will be analyzed and compared to average school district I-STEP+ testing scores for 10th-grade evaluations. There are some confounding variables in regards to educational success and how it is measured that are discussed below, but comparing these two data sets shows the correlation between broadband and one measure of educational success, test scores. The findings of this research add broadband to the growing list of variables that can impact a child’s educational success and asks school administrators to look at their students broadband access as another thing they can advocate for to increase students chances of educational success.
Integration and Uncompensated Care: Evidence from System Acquisitions of Nonprofit Hospitals

An increasing number of not-for-profit (NFP) hospitals in the United States are joining health systems. On one hand, joining might lead to more uncompensated care, through monetary advantages that consolidation affords such hospitals. Alternatively, it could lead to fewer cases of uncompensated care, owing to an adoption of a potentially commercial mindset. This paper tests the direction of this effect by comparing the uncompensated care expenditures of NFP hospitals that joined a health system with those that did not. The paper uses administrative data from the Centers for Medicare & Medicaid Services for total uncompensated care cost data, and the Hospital Research Data from the Dartmouth Atlas of Health Care for information on health system affiliations of hospitals from 2014 to 2017. The analysis uses difference in differences regressions, which revealed uncompensated care expenditures of NFP hospitals experienced no statistically significant change upon joining health systems. Hospitals affiliated with health systems provide more uncompensated care than those that are not, but joining, in itself, has no effect on the dollar amount of uncompensated care provided. This relationship holds true even when states with high and low percentages of uninsured populations are compared. Thus, community members relying on uncompensated care remain unaffected despite hospitals more readily joining health systems.