



**Arts & Sciences**

Center for Innovation in Social Science

# **UNDERGRADUATE RESEARCH INTERN PRESENTATIONS**



**THURSDAY, APRIL 14, 2022**

**4:00 PM - 5:30 PM**

**(ZOOM)**

# Student Interns

**Nikki Huang** (CAS '23) is a junior majoring in International Relations. CAS Sociology Professor Jonathan Mijs mentored Nikki and her collaborator Will on a project titled *Correcting Discrimination: Experimental evidence of the impact of information addressing misperceptions about ethnic and racial inequality in the United States and the Netherlands*.

**Carly Mast** (CAS '22) is a senior majoring in history and minoring in sociology. CAS Sociology Professor Jessica Simes mentored Carly on a project titled *Studies of Structural Racisms in Community Health and Criminal Justice*.

**Shradda Pingali** (CAS '22) is a senior in the Environmental Analysis and Policy/Energy and Environment program. CAS Earth & Environment Professor Ian Sue Wing mentored Shradda on a project titled *Climate Change Mitigation-Adaptation Tradeoffs: Evidence from an Analytical General Equilibrium Model*.

**Will Regan** (CAS '23) is a junior majoring in Computer Science and Statistics. CAS Sociology Professor Jonathan Mijs mentored will and his collaborator, Nikki, on a project titled *Correcting Discrimination: Experimental evidence of the impact of information addressing misperceptions about ethnic and racial inequality in the United States and the Netherlands*.

**Kate Sandage** (CAS '23) is a junior majoring in Sociology. Theology Professor Wesley Wildman mentored Kate on a project titled *Strategies Against Rural Suicide Project (STARS)*.

# Studies of Structural Racism in Community Health and Criminal Justice

Carly Mast (CAS '22)

Faculty Mentor: Jessica Simes (CAS Sociology)

Pretrial detention makes up a significant portion of the incarcerated population in the United States. For “Studies of Structural Racism in Community Health and Criminal Justice” we were interested in what the community health effects would be for decarcerating this population. We chose to look at bail reform as a mechanism for understanding the possible outcomes of getting rid of money bail. We compiled a state-by-state database that looked at bail reforms in states such as California, Massachusetts, New Jersey, and Illinois. We conducted the research by reading the legislation and local news articles, looking at explanations on government websites, and reporting any relevant concurrent legislation. New Jersey was our control state and Massachusetts and Connecticut were our counterfactuals. The project is ongoing, but we found that New Jersey had a decrease in firearm deaths after they passed their bail reform legislation in 2015 that got rid of money bail. This project highlights the importance of decarceration by looking at the potential positive health effects of doing so.

For the second part of this project, we looked at the spatial analysis of the criminal legal system for an Annual Review of Sociology review article. Spatial analysis could look like incarceration’s impact on neighborhoods, where prisons are located, or how certain neighborhoods are hyper-policed or surveilled. Through using key terms like space, neighborhood, incarceration, rural, urban, and spatial regression, we used Google Scholar and the BU Libraries to source the articles. We created a literature review with over 50 articles that looked at the intersection of space in incarceration, jail/prison location, sentencing, or policing.

# Heat, Labor, and Leisure:

## Economic Consequences of Climate Change Impacts

Shradda Pingali (CAS '22)

Faculty Mentor: Ian Sue Wing (CAS Earth & Environment)

Climate change is among the most pressing and pervasive of environmental problems. Human adaptation to warming temperatures will affect energy systems and the broader economy. Ambient temperatures increases will drive populations to reduce consumption of natural gas, petroleum, and electricity for heating during the cold season in temperate regions, and increase consumption of electricity for cooling during the hot season in temperate regions, and year-round in the tropics. Prior research (Van Ruijven et al 2019, hereafter VR19) found that the net effect will be substantial increases in the future demand for energy, and electricity in particular, which suggests that climate change will lower the productivity of energy as an input to economic activity and simultaneously increase the economic cost of mitigating emissions of greenhouse gases associated with energy use. Here we assess the economic consequences of climatically-driven shifts in energy productivity. Our approach is to develop a stylized two-sector, two-factor analytical general equilibrium model, which we solve for closed-form representations of the response of welfare (consumers' well-being) and aggregate energy consumption to energy productivity shocks. These results were then numerically parameterized using economic and energy accounts for 141 world regions tabulated by the Global Trade Analysis Project (GTAP) in conjunction with VR19's energy productivity shocks. Elasticities to energy productivity shocks and emission taxes are larger in countries in the tropics, and generally correspond to declines in welfare of 0-2% and simultaneous increases in aggregate energy use of 0-6%, with effects that tend to be concentrated in energy-intensive sectors. Future research will investigate the extent to which higher energy demand will necessitate increases in mitigation efforts to achieve emission reductions and the welfare consequences of that amplification.

# Correcting Discrimination:

Experimental evidence of the impact of information addressing misperceptions about ethnic and racial inequality in the United States and the Netherlands

Will Regan (CAS '23) and Nikki Huang (CAS '23)

Mentor: Jonathan Mijs (CAS Sociology)

The COVID-19 pandemic and Black Lives Matter movement have brought racial and ethnic inequalities to the forefront of public conversation on both sides of the Atlantic. However, research shows that people routinely overestimate the level of progress towards ethnic and racial equality that has been made and underestimate socioeconomic disparities between racial and ethnic majority and minority groups. Common among the American public is a naive belief in equal opportunity despite the reality of pervasive structural discrimination. Across the Atlantic, Dutch people's self-perception of a tolerant, progressive, egalitarian society means that racism and discrimination are uncomfortable topics, often avoided, rendering invisible the stigmatization of immigrants and people of color. The result is racism by omission: ethnic and racial disparities are minimized and attributed to factors other than discrimination, leading to legitimize inequalities and justify non-intervention. Against this background, we fielded an internationally comparative survey experiment to study whether people's misperceptions of racial and ethnic inequality can be addressed through the randomized provision of factual information. Information describing the reality of ethnic and racial inequality, we find, (1) most strongly impacts perceptions of inequality as compared to explanations of inequality and policy attitudes; and (2) leads to more consistent belief change among majority-group participants as compared to immigrants and people of color and (3) among our Dutch sample vis-a-vis our American participants. We make sense of these findings through the lens of how 'shocking' the information provided was to different groups of participants. We conclude by reflecting on implications for future research, theory, and on practical and political applications of our empirical findings in information campaigns, activism and advertising.

# Strategies Against Racial Suicide Project (STARS)

Kate Sandage (CAS '23)

Mentor: Wesley Wildman (STH Theology)

## **Content Warning: Suicide**

This part of the Strategies Against Rural Suicide Project (STARS) involves a system dynamics model (SDM) of rural suicide. This is a stocks and flows model showing the rate at which people in rural populations move through different stages of suicide: distress, consideration, planning, treatment, and attempts. The aim for the system dynamics model is to find different policies, programs, and theories that serve as parameters for the flow rates in the model. Therefore, the research question for my portion of the project is: what parameters will affect the flow rates in the system dynamics model of rural suicide? Parameters are found through literature review of different policies that impact various stages of the model. Establishing parameters in the SDM will give experts a better understanding of what suicide prevention and intervention policies really achieve, and how they can be improved to better serve rural populations. The main parameters that have been established through this research include: mental health literacy, perceived need, means restriction laws, health insurance, and community-based programs. The SDM has the unique ability to tease apart the influence of several different variables and explain the implications of variables that have nonlinear impacts. There are many suicide policies and programs already in existence, but they are not consolidated, making it difficult to measure their true effectiveness. This model will be a tool for policymakers to make more informed decisions about which suicide policies work in order to better meet the mental health needs of rural communities.