

Building Back Better with SOCIAL AND BEHAVIORAL SCIENCE

COVID-19

Limiting the Spread of Disease in Schools

Social scientists can investigate methods to prevent the spread of flu-like infectious disease in school settings. In one [study](#), every student, teacher, and staff member in one high school was outfitted with a credit card-sized wireless sensor to monitor contact for one whole school day to model social networks. The resulting models simulated how influenza infection would spread through the community based on real-world contact. **The models also allowed researchers to explore strategies for efficient disease management such as vaccinations and school closings.** Most vaccination strategies were no more effective than random vaccinations in preventing the spread of disease. However, social distancing strategies in which schools were intermittently closed (e.g., two days open, two days closed) interrupted the contact network, and were nearly as effective as a complete three-week school shutdown. These findings provide useful insight for school administrators and public health officials into the development of effective prevention strategies.

Combatting Vaccine Misinformation

Computational social science research provides critical insights into combatting misinformation about vaccines, especially the COVID-19 vaccines and how to limit the spread of online misinformation about COVID-19. **One [project](#) analyzed how the most vulnerable populations such as people of color, the elderly, and others are influenced by inaccurate information about COVID-19 and whether that information gets spread across platforms and among groups.** Using models, the researchers collected data from several different online platforms to track the spread rate of misinformation and the rate of vulnerable groups being exposed to misinformation while providing insights into strategies to limit the spread of misinformation. While these strategies will absolutely be helpful during the current COVID-19 emergency, they will no doubt be equally useful in dispelling misinformation on other crucial public health and policy issues.

ECONOMIC RECOVERY

The Unequal Impact of Student Debt on Black Households

There is an alarming shift in funding public higher education through student debt, a harmful phenomenon to the financial stability of multiple generations of Americans. Notably, this shift has hit Black households the hardest with research showing **student debt among Black households increasing by 400% in the last two decades.** [Sociologists have created models](#) to analyze this shift and potentially find options to mitigate disparities. The model shows a trend towards “predatory inclusion” practices, where financial and educational aid organizations offer much needed support to Black families, but with terms and conditions that exploit the families in the long-term. Furthermore, the model showed that a national debt cancellation policy of at least \$50,000 for households making under \$150,000 a year would increase average Black wealth significantly, along with forgiving debt completely for roughly three quarters of all American families.

Understanding Wealth Inequality

A [study utilizing demography and economics](#) found that over the past few decades, wealth is concentrating in households made up of senior citizen compared to households with children. **In addition, wealth inequality for families with children has grown, with the average wealth of the “parental 1 percent” increasing by \$3 million, while two thirds of all families with children have a negative net worth due to debt.** The researchers identified several reasons for the trend, including the emphasis of federal assistance dollars towards senior citizens rather

than children, rising costs of education, stagnating wages, and the lasting effects of the housing crisis and Great Recession hitting parents harder than seniors, especially parents with low paying jobs.

RACIAL EQUITY

Feelings of Safety Increase at Diverse Schools

Federally-funded education researchers have [reported findings](#) from a study on students' perceived safety and sense of belonging when attending more ethnically diverse schools. The study asked thousands of middle schoolers in California about their experiences in school related to feelings of safety, whether they felt bullied or lonely, whether they felt close to their peers, and whether they felt fairly treated by their teachers. The findings of the study suggest that the **schools with most diverse student bodies report a stronger sense of safety along with less reported loneliness or bullying** than schools with less diverse student bodies. This trend was especially strong among non-White students, although White students reported similarly. The research also supports previous findings that students who have more positive social experiences at school perform better academically.

Strategies for Combatting Hate

Recent years have seen a significant amount of recruitment into White supremacist extremist groups through gaming and other online communities, especially among young White males. [Sociologists have found](#) that once an individual is embedded within such groups, it is difficult to leave or shake off their hateful ideologies. **Social science has informed the development of effective models for deradicalization, which can be shared among schools, parents, counselors, and mental health professionals.** A model deradicalization policy can then shrink the scope of White supremacist groups and reduce hate-motivated violence against ethnic, religious, and gender minorities.

CLIMATE CHANGE

Encouraging Environmentally-Conscious Behavior

As part of a [study on the effectiveness of environmental messaging strategies](#), psychologists asked participants to imagine how they would feel when choosing between an eco-friendly action and a less “green” alternative—either pride in choosing the eco-friendly option or guilt for making an environmentally unfriendly choice. Participants were then prompted to make hypothetical choices, each with environmentally friendly and unfriendly options. The findings showed a clear pattern—participants anticipated feelings of pride chose made more eco-friendly choices than those expecting to feel guilty. These findings are consistent with previous behavioral research finding that **guilt-based messaging may risk backfiring by invoking defensiveness in the target audience** and may provide valuable insight for policymakers and environmental stakeholders to reframe public messaging surrounding climate change and other behavior-based environmental issues.

Historical Lessons for Coping with Climate Change

Archaeology and computational anthropology can be useful in understanding how ancient civilizations dealt with the challenges of climate change, potentially providing insight to modern-day societies on ways to prepare and adapt to our changing climate. [One study](#) looked at ancient pastoral societies in the Eurasian steppe (current day Mongolia, China, and Central Asia) who experienced climate change via a global cooling event between 3750-3000 BCE. The researchers found that these societies experienced hardships related to the declining agricultural growth and increasingly inhospitable climates at higher elevation. These hardships instigated significant innovations and technologic advancements in the fields of agriculture, infrastructure, and economics to better handle the effects of the colder climate. These advancements, however, were accompanied by difficult and painful social changes. The researchers also noted that our current wave of climate change is on track to be astronomically more severe than the one experienced five thousand years ago, meaning current-day societies may be forced to undergo more drastic and rapid change in order to adapt to the changing climate.