



THE LONDON SCHOOL  
OF ECONOMICS AND  
POLITICAL SCIENCE ■

# **LSE Research Support Fund**

Round 1 2020/21

### LSE Research Support Fund

Following the success of LSE's COVID-19 Fund in 2020 and taking into consideration the continued impact that the pandemic has had on research for LSE academics, affecting both the resources and the time available to spend on research, particularly for colleagues in the early stages of their career, the Pro-Director for Research, Professor Simon Hix, worked with LSE Research and Innovation to create the LSE Research Support Fund. The aim was simple: to support world-class research conducted by academic faculty and researchers at LSE by awarding up to £20,000 for highly original project ideas which could be implemented immediately and in a short time frame.

To achieve synergy with the School's strategic framework and priorities, the fund particularly encouraged and welcomed applications aligned with the current LSE priorities, namely *environmental sustainability*, *race equity*, and *shaping the post-COVID world*, as well as research that is likely to have an impact on policy-making. In recognition of the diminishing number of opportunities available externally for smaller grants to support faculty and researchers at an early career stage an additional goal was to channel at least 40% of available funding to staff at this level.

The call was launched in December 2020, with a deadline for applications in mid-February 2021. 69 eligible applications were assessed in a two-step process conducted by the Research Development Panel, which looked at excellence of the proposed research, anticipated policy impact, feasibility and value for money. A total of 17 projects were selected to receive funding, in the overall value of roughly £250k.

A particularly encouraging element of the response was the readiness of LSE's research community to respond to the strategic priorities of the School: as many as 15 out of the 17 projects selected for funding directly address one of the highlighted thematic areas. In addition, 9 successful projects are led by Assistant Professors/Assistant Professorial Research Fellows, with a further 5 led by Associate Professors and 3 by Professors.

The awarded projects are summarised below, by thematic priorities. Results will be shared as they become available through the School's media channels .

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### THEMATIC PRIORITY: ENVIRONMENTAL SUSTAINABILITY

As part of the School's [Sustainability Strategic Plan](#), LSE is committed to supporting new research on environmental sustainability, and to enhancing the impact of LSE research on public understanding and public debate. By emphasizing the environmental sustainability theme, we aimed to encourage researchers from across the School to undertake new research on this topic, to build on and engage with existing research in the Grantham Research Institute on Climate Change and the Environment, the Geography and Environment Department, and across the School.

#### Climate crisis/housing crisis: how are social landlords tackling the climate crisis?

##### Professor Anne Power

In 2050, around ninety percent of our existing homes will still be standing and so we must maintain this valuable stock to save energy and keep homes safe. To meet ambitious climate change and energy reduction targets, we need to invest in our existing stock through retrofit, since our built environment contributes to over 40% of UK carbon emissions. Cutting energy use in homes by up to 75% is possible, but it requires significant investment. This project focuses on multi-storey buildings owned by social landlords. It aims to find out how both safety and energy saving can be tackled together and how this investment can save money, as well as secure the future of existing social housing and communities, and combat climate change.

#### What explains the changing boundaries of 'green' and 'sustainable' in finance? Insights from the bond market

##### Dr Richard Perkins

What qualifies as 'green' or 'sustainable' in finance? And how do qualification criteria change over time? This project aims to answer these questions using the example of labelled environmentally/sustainability-themed bonds. More specifically, the project has two aims:

- (1) To provide novel insights into the processes through which qualifying criteria for existing and new environmentally- and sustainability-themed financial products evolve.
- (2) To shed light on the actors, events, and logics involved in redefining and solidifying the boundaries of environmental sustainability within finance.

Adopting a qualitative research approach, the project's findings will be based on semi-structured interviews and document analysis.

#### Greening the automotive industry: an empirical analysis of innovation in production networks and its implications for green industrial policy

##### Dr Eugenie Dugoua

Significant progress in reconciling economic activities with environmental goals requires technological change, and in particular, changes in the products that we use. This project will empirically study the role of production networks in the transition from combustion engine to electric or hydrogen-based cars. The first objective is descriptive: where do green innovations happen in the supply chain? Do suppliers innovate in green technologies alongside original equipment manufacturers (OEMs)? Do their innovations precede or follow those of OEMs? How do the patterns of green innovation change when relationships between suppliers and OEMs are created or broken? What type of supply-chain structure best predicts clean innovation (e.g., many shared suppliers vs. exclusive relationships)? The second objective is to examine how demand-side green policies induce low-carbon innovations throughout the supply chain. The project will aim to construct measures of producers' exposure to these policies and investigate how they may have stimulated innovation on clean cars.

#### Indoor air pollution, real time information and behavioural change: evidence from London

##### Dr Sefi Roth

The adverse impacts of ambient air pollution and its associated costs have received substantial public and policy attention. Nevertheless, the issue of indoor pollution is often overlooked in academic research and policy discussions. This project will shed light on residential indoor pollution exposure in London, its effects on health and wellbeing, effective behavioural responses to mitigate such risk, and a possible cost-effective policy to address it.

## THEMATIC PRIORITY: RACE EQUITY

As part of the School's [Race Equity Framework](#), LSE is committed to ensuring that our research and knowledge engagement activities contribute to public understanding of race equity within and beyond LSE. As part of this goal, we aim to embed race within LSE research, by encouraging and supporting faculty to consider issues of race, ethnicity and cultural identity within their research. By emphasizing the race equity theme as part of the Research Support Fund, we aimed to encourage researchers from across the School to undertake new research on this topic, regardless of existing disciplinary or field expertise.

### Africa's 'Negro' Republics: How race, citizenship and migration impact socio-economic development in Liberia and Sierra Leone

#### Dr Robtel Neajai Pailey

This project seeks to put Critical Development Studies and Critical African Studies into fluid conversation with Critical Race Studies. The research investigates how constitutional 'Negro' clauses that prohibit non-blacks from obtaining citizenship in Liberia and Sierra Leone have impacted the two countries' pre- and post-war development outcomes. Through mixed-methods including semi-structured interviews, surveys and archival data, the project examines how slavery, colonialism and neoliberalism in the 19th, 20th and 21st centuries, respectively, have shaped the adoption and maintenance of 'Negro' clauses and how these race-based citizenship provisions challenge white supremacy and assert black personhood. Finally, it reviews what implications 'Negro' clauses have for contemporary patterns of 'South-South' migration, investment, trade and aid.

### Race, nature and sustainable futures

#### Dr Austin Zeiderman

Ideas of 'race' and 'nature' structure our societies and environments, effectively underpinning hierarchical and exploitative relations among different categories of humans and between humans and the non-human world. These relations are increasingly recognized as both unjust and unsustainable, and indeed may be leading the planet toward a catastrophic future. In focusing on the project to revitalize Colombia's Magdalena River, the objective of this research is to understand: when and how do efforts to remake a major waterway contribute to social and environmental justice? Can they avoid reproducing longstanding patterns of exploitation among human populations and between people and the planet? By interrogating 'race' and 'nature' in this context, the ultimate aim is to contribute to the pursuit of just and sustainable futures on a global scale.

### Nehru's India: Seven Myths

#### Dr Taylor C Sherman

This project brings an iconoclastic but nuanced set of new interpretations to the history of the first two decades after independence in India. Based on extensive research over the past two decades, including research at the LSE Library, the project will help put the finishing touches on a manuscript that demonstrates that the series of abstract nouns most strongly associated with India's first prime minister, Jawaharlal Nehru – non-alignment, secularism, socialism, democracy, the state, and modernism – have lost their explanatory power. They have become myths. Each chapter of the manuscript will trace the origin and perpetuation of one myth and critique it.

### Racially patterned vaccine hesitancy in the COVID-19 pandemic: determinants, incentives and policy design

#### Dr Miqdad Asaria

The COVID-19 pandemic has highlighted racially patterned health inequalities in the UK with people from Black, Pakistani and Bangladeshi ethnic groups suffering 3-4 times higher levels of age-adjusted deaths from COVID-19 than the white population. Whilst it is widely recognized that distrust of the government and its intentions in vaccination program are associated with this vaccine hesitancy, it is unclear what particular elements of the program are the greatest cause for concern. Once such concerns are identified strategies can be designed to try and address and alleviate these concerns. This project aims to identify what it is that is driving vaccine hesitancy in different ethnic groups; identify using discrete choice modelling and a survey experiment the behavioural mechanisms and incentives that might work to overcome some of this hesitancy among different ethnic groups; and draw wider lessons for how to design policy interventions that build rather than erode vaccine trust in marginalised groups.

### **What shapes public support for COVID-related economic policy interventions? An experimental approach**

#### **Professor Jeffrey Chwieroth**

This project aims to examine the role of financialized wealth, perceptions of socioeconomic inequality and of racial equality, and financial literacy on the level of support for different COVID-related policy interventions. In achieving these aims, it will deepen our knowledge of the consequences of racial disparities in wealth and the impact of perceptions of racial equality in shaping perceptions of fairness and public support for economic policy interventions. It will also improve our understanding of the extent to which COVID-related economic policy interventions are likely to worsen existing tensions in society in the months and years ahead.

## THEMATIC PRIORITY: SHAPING THE POST-COVID WORLD

LSE launched the [Shaping the Post-COVID World](#) project in the Autumn of 2020. The project encourages colleagues to come together across disciplinary boundaries to re-evaluate aspects of our economy, society, and government, to shape a better world beyond the pandemic. The project involves public events, a blog platform, as well as new research on these topics, as promoted by the Research Support Fund.

### The robot and I: perceptions of human-robot relationships in the post-COVID world

**Dr Jonathan Booth**

Organizations are increasingly replacing human workers with robots (i.e., intelligent machines and algorithms). In the post-COVID world, this issue will likely become more important than ever, given that the pandemic has pushed organizations over the 'technology tipping point', and digital adoption has taken a quantum leap. This project aims to create a psychometrically validated scale that measures people's perception of robots from a range of domains comprising human activity, including work, education, healthcare, household and domestic assistance, leisure, hospitality, culture and entertainment, security and surveillance, and social and companionship. The perceptions evaluated will involve how people feel about robots (e.g., what concerns them the most and what they consider to be the positive aspects of human-robot interaction), in what way they see themselves interacting with robots, which specific issues they anticipate arising due to human-robot interaction, and under which circumstances robot adoption would be acceptable to them.

### Private hospitals in England and their evolving role during the COVID-19 pandemic

**Dr Rocco Friebe**

Private hospitals, or Independent Sector Treatment Centres have long played a role in the provision of health care services in England. This project will explore the trends in utilization patterns of private sector providers, before and during the COVID-19 pandemic. It will explore potential differences in the quality of care provided to patients, compare this to the quality of care provided by NHS hospitals and explore the role of regulation in ensuring high quality of care.

### The future of healthcare services in South Africa? Exploring the determinants of the demand for telehealth in primary care

**Dr Mylene Lagarde**

In response to the COVID-19 crisis, South Africa has eased regulatory constraints on the provision of remote medical services, paving the way for the introduction of telehealth in the market of primary care. It remains unclear what the level of demand for such services is, and to what extent it is sensitive to price, quality and provider characteristics. This project aims to inform the design of the future face of health services in South Africa by answering critical questions related to telehealth services:

- 1) What is quality of telehealth consultations?
- 2) How sensitive is the demand for telehealth to price and provider characteristics?

### Money and mobility: investment migration in a post-COVID world

**Dr Kristin Surak**

Recent years have seen the global spread of programs that allow wealthy individuals to gain residence or citizenship in a country in exchange for an investment. These 'golden passport' or 'golden visa' schemes offer a pathway to membership to those who can afford it. Yet we know little about the demographic uptake and economic impact of these programs globally, and my interviews suggest that COVID-19 may be increasing the demand for these options and the desirability of such programs to countries in economic straits. Thus, this project aims to provide the first quantitative analysis of the possible change and expansion of such programs, as well as patterns in their uptake and economic outcomes, as countries adapt and adopt these programs and the wealthy seek new ways to open borders and hedge risks in a COVID- and post-COVID world.

### **Economic crisis and growing inequality in household worklessness across local labour markets in the UK and the US**

#### **Dr Thomas Biegert**

Most research on the employment effects of the pandemic focuses on individual unemployment. This project will shift the focus to the household, which is the primary economic entity where the economic crisis can be buffered or compounded. The project will investigate the development of household worklessness before and during the COVID-19 pandemic in the UK and the US in the context of job-loss and social inequality.

### **The role of scientific advice in emergency policy-making**

#### **Professor Richard Bradley**

In responding to the COVID-19 pandemic the UK government has drawn on the advice of scientific experts, not only to provide guidance as to how the pandemic might evolve but also as to the efficacy of different possible policy interventions. This project aims to formulate norms governing four aspects of this conscription of scientific advice in support of emergency-response decision making: (a) the forms that scientific advice should take, (b) the process of scientific assessment itself, (c) the measurement and communication of scientific uncertainty, and (d) the management of scientific uncertainty within policy-making.

## OTHER TOPICS:

### **Medicine prices, availability and affordability in 91 high-, middle-, and low-income countries: a large-scale retrospective analysis**

#### **Dr Olivier Wouters**

As governments strive to achieve universal access to essential medicines, it is important to understand how the prices, availability, and affordability of medicines vary between countries. Yet surprisingly few analyses have compared one or more of these variables internationally, and most of the research is from 2011 or earlier. This observational study aims to compare the prices, availability, and affordability of 50 medicines—available in approximately 700 different dosage forms—in 91 high-, middle-, and low-income countries from 2010 to 2020. It will be the largest study of drug prices globally to date.

### **Sparse reinforcement learning for optimal decision-making in mobile health**

#### **Dr Chengchun Shi**

Reinforcement learning (RL) is a powerful machine learning technique that allows an agent to learn an optimal policy in a given environment in order to maximize the cumulative reward that it receives. RL algorithms have been applied in a variety of applications, including games, robotics, bidding, ridesharing, and automated driving. In particular, RL has recently been adapted to develop data-driven methodologies in precision medicine. Mobile health (mHealth) technologies have recently emerged due to the use of mobile devices such as mobile phones, tablets, computers or wearable devices. They hold a huge potential for developing countries with a severe scarcity of health infrastructure and resources, thus narrowing the distance between Global North and Global South. A fundamental question of interest that this project will consider is how to make effective use of high-dimensional information in mobile health applications that is relevant to optimal treatment decision-making. This makes variable selection as an emerging need for implementing RL.



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The London School of Economics  
and Political Science  
Houghton Street  
London WC2A 2AE

**Email:** [rescon@lse.ac.uk](mailto:rescon@lse.ac.uk)

**Telephone:** +44 (0)20 7955 0000

**lse.ac.uk**



The information in this brochure can be made available in alternative formats, on request. Please contact: [rescon@lse.ac.uk](mailto:rescon@lse.ac.uk)

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