Arun Frey

Department of Sociology, University of Oxford 42-43 Park End St, Oxford, OX1 1JD

arun.frey@sociology.ox.ac.uk arunfrey.github.io



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Profile	As a computational sociologist, I am passionate about using data to bring new evidence to
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bear on urgent social problems. My research works towards improving immigrant integration,

combating inequality, and reducing xenophobic violence.

Research Interests Computational Social Science & Causal Inference & Violence & Migration & Inequality

ACADEMIC POSITIONS Leverhulme Centre for Demographic Science, University of Oxford 2021–Present

Postdoctoral Researcher

Nuffield College, University of Oxford 2021–Present

Nonstipendiary Research Fellow

VISITING POSITIONS The Alan Turing Institute Winter 2022

Data Science Researcher

Data Science for Social Good Fellowship, Carnegie Mellon University Summer 2022

Data Science Fellow

Harvard University 2020–2021

Visiting Fellow

EDUCATION University of Oxford 2017–2022

DPhil Sociology

University of Oxford 2014–2015

 $MSc\ Sociology$

City, University of London 2011–2014

BSc Sociology

PUBLICATIONS "Learning loss due to school closures during the COVID-19 pandemic," *Proceedings of the*

National Academy of Sciences, 2021 (with Per Engzell and Mark Verhagen).

"Faces in the Crowd: Estimating Protest Ideology with Twitter Data," PLOS ONE, 2021

(with Christopher Barrie).

"Getting Under the Skin: The Impact of Terrorist Attacks on Native and Immigrant Sentiment," Social Forces, 2021.

"The impact of mass shootings on attitudes towards gun restrictions in the United States,"

Socius, 2021 (with David S. Kirk).

"Cologne Changed Everything—The Effect of Threatening Events on the Frequency and Distribution of Intergroup Conflict in Germany", European Sociological Review, 2020.

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"Nowcasting daily population displacement in Ukraine through social media advertising data", *SocArXiv*, 2022 (with Douglas Leasure et al).

Minimizing entry into homelessness following eviction through predictive modelling", Working Paper, 2022 (with J Baumann et al).

"Shelter in Place: The impact of refugee shelter openings on local property prices and perceptions of neighbourhood quality", Working Paper, 2022.

Media Coverage

Research covered by The Economist, Financial Times, The New York Times, New York Magazine, Washington Post, Newsweek, Politico, New Statesman, The Telegraph, The Spectator, The Hill, Times Higher Education, Aljazeera, Der Spiegel, El País, Le Soir, de Volkskrant, Sydney Morning Herald, Irish Examiner, Haaretz, and The Hindu.

AWARDS & GRANTS

Cozzarelli Prize in recognition of outstanding scientific quality & originality, National Academy of Sciences of the United States of America	2021
2021 Best Article Award, European Consortium for Sociological Research	2021
Excellence in Impact Award for data-driven policy interventions, O2RB	2021
${\it Graduate~Scholarship}, {\it Department~of~Sociology}, {\it University~of~Oxford}$	2019
${\it Graduate~Scholarship}, {\rm St~Catherine's~College}, {\rm University~of~Oxford}$	2018
$\label{eq:Quantitative Methods Scholarship} Quantitative\ Methods\ Scholarship,\ {\it Oxford}\ Q\mbox{-Step}\ {\it Centre}$	2018
$Doctoral\ Scholarship,\ German\ Academic\ Scholarship\ Foundation$	2018-2021
$Advanced\ Quantitative\ Methods\ DTP\ Award,\ UK\ ESRC$	2017-2021
Doctoral Scholarship, Foundation of German Business	2017-2018
Travel Grant, German Academic Exchange Service	2016

Teaching

Department of Sociology, University of Oxford	
Instructor of "Applied Statistics—Political Analysis II" Department of Politics and International Relations, University of Oxford	2017-2020

2021-Present

Teaching Assistant of "Applied Statistics for Social Scientists" 2017–2019 Department of Sociology, University of Oxford

College Tutor of "Political Sociology and Social Movement Studies" 2018–2019 St Catherine's College, University of Oxford

LANGUAGES

Computer R (e.g. tidyverse, data.table, ggplot2), Python (e.g. pandas, scikit-learn, tensorflow), SQL, Git, Stata, LATEX.

Human German (native), English (fluent), French (conversational).

Instructor of "Introduction to coding in R"

TECHNIQUES

Statistical hypothesis testing, causal inference, regression & classification, machine learning, experimental design, data visualization, data wrangling, web scraping, spatial analysis.

	Machine Learning for Economists, University of Oxford, 2018, 2022.		
	Summer Institute in Computational Social Science (SICSS), 2020.		
	Advanced Methods for Social Media & Textual Data, Essex Summer School, 2020.		
	Applied Statistics Workshop, IQSS, Harvard University, 2019, 2020.		
	Advanced Quantitative Research, Harvard University, 2019.		
POPULAR WRITING	"Die Bildungskonsequenzen der COVID-19-Pandemie: Erhebliche Lernverluste und wachsende Ungleichheiten," Population Europe Discussion Paper.		
	"The collateral damage to children's education during lockdown," \textit{VoxEU} .		
	"How Do School Closures Affect Student Learning? It's Worse Than You Think," <i>Population Europe</i> .		
	"Inequality of Opportunity in Asia and the Pacific: Clean Energy," United Report .	Nations Policy	
Advisory work (recent)	Technical Advisor Fund for Guaranteed Income (F4GI)	2022	
	Data Scientist & Research Consultant Ministry of Finance, Government of the Netherlands	2021	
	Expert Advisor Ministry of Education, Culture, and Science, Government of the Netherlands	2021	
	Expert Advisor Department for Education, Open Innovation Team, UK Government	2021	
	Freelance Consultant Max Planck Institute for Demographic Research	2021	
Work Experience	United Nations, Bangkok, Thailand Economic Affairs Consultant	2015–2017	
	European Parliament, Brussels, Belgium Robert Schuman Trainee	2015	
Invited Talks (recent)	"Learning Loss during the COVID-19 pandemic" MZES Mannheim Zentrum für Europäische Sozialforschung	Oct 18, 2022	
	"Controlling COVID-19 in Schools: Lessons Learned and Open Questions" Isaac Newton Institute for Mathematical Sciences, Cambridge	Apr 27, 2022	
	"The Impact of Refugee Shelters on Neighbourhood Appeal" Institute for Employment Research	Feb 24, 2022	
	"Migration and Diversity Speaker Series" WZB Berlin Social Science Center	Nov 10, 2021	

METHODS TRAINING Applied Machine Learning, Oxford Internet Institute, 2022.

Invited Talks	"Mapping Educational Inequalities During the Pandemic" European Commission Joint Research Centre (ECJR)	Apr 27, 2021
(continued)	"Learning Inequality during the COVID-19 Pandemic" University of Zurich Research Colloquium	Apr 27, 2021
	"Learning Inequality during the COVID-19 pandemic" World Bank Education Seminar Series	Jan 14, 2021
	"Demography and the Coronavirus Pandemic: What have we learned?" Max Planck Institute, Population Europe Expert Meeting	Nov 9, 2020
	"Learning Inequality during the COVID-19 Pandemic" Organisation for Economic Cooperation and Development (OECD)	Oct 27, 2020
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Conferences

American Sociological Association Annual Meeting (2020), American Political Science Association Annual Meeting (2019, 2020), Population Association of America (2021), IZA & Jacobs Center Conference (2021), European Consortium for Sociological Research (2020, 2021), Social Science History Association (2020, postponed), European Sociological Association (2019), European Conference on Educational Research (2021), Alternative Futures & Popular Protest (2019).

SERVICE

Reviewer for PNAS, American Political Science Review, Journal of Ethnic and Migration Studies, Economics & Politics, European Sociological Review, European Societies, and PLOS ONE.

References

Professor Michael Biggs
Department of Sociology
University of Oxford
michael.biggs@sociology.ox.ac.u

Professor David Kirk
Department of Sociology
University of Oxford
david.kirk@sociology.ox.ac.uk

Professor Ridhi Kashyap
Department of Sociology
University of Oxford
ridhi.kashyap@nuffield.ox.ac.uk