## Arun Frey

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Profile

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

RESEARCH INTERESTS

Computational Social Science  $\diamond$  Causal Inference  $\diamond$  Violence  $\diamond$  Migration  $\diamond$  Inequality

Positions

Stanford RegLab, Stanford University

Data Scientist

Nuffield College, University of Oxford

2023–Present

2021 - 2023

Leverhulme Centre for Demographic Science, University of Oxford

 $Postdoctoral\ Researcher$ 

2021-2023

Nonstipendiary Research Fellow

VISITING POSITIONS

## The Alan Turing Institute

Winter 2022

Data Study Group Fellow

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 Media Studies & Sociology

**Publications** 

"Nowcasting daily population displacement in Ukraine through social media advertising data", *Population and Development Review*, 2023 (with Douglas R. Leasure, Ridhi Kashyap, Francesco Rampazzo, Claire Dooley, Benjamin Elbers, Maksym Bondarenko, Mark D. Verhagen, Jiani Yan, Evelina Akimova, Masoomali Fatehkia, Robert Trigwell, Andrew J Tatem, Ingmar Weber, and Melinda C. Mills).

"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).

Publications (continued)	"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 Distribution of Intergroup Conflict in Germany", <i>European Sociological I</i>	- 0		
	"Getting Under the Skin: The Impact of Terrorist Attacks on Native and Imment," <i>Social Forces</i> , 2021.	migrant Senti-		
Working Papers	"Inequalities in Healthcare Use during the COVID-19 Pandemic", $medRxiv$ , 2023 (with Mark Verhagen and Andrea Tilstra).			
	Minimizing entry into homelessness following eviction through predictive modelling", <i>Working Paper</i> , 2022 (with Catalina Vajiac, Joachim Baumann, Abigail Smith, Kasun Amarasinghe, Alice Lai, Rayid Ghani, and Kit Rodolfa).			
	"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	Research Grant on COVID-19 Excess Mortality ( $\mathfrak{C}50,000$ ) Ministry of Health of The Netherlands	2023		
	Cozzarelli Prize in recognition of outstanding scientific quality $\mathcal E$ 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		
	Graduate Scholarship, Department of Sociology, University of Oxford	2019		
	Graduate Scholarship, St Catherine's College, University of Oxford	2018		
	Quantitative Methods Scholarship, Oxford Q-Step 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	Instructor of "Introduction to coding in R" Department of Sociology, University of Oxford	2021–Present		
	Instructor of "Applied Statistics—Political Analysis II" Department of Politics and International Relations, University of Oxford	2017-2020		
	Teaching Assistant of "Applied Statistics for Social Scientists" Department of Sociology, University of Oxford	2017–2019		

LANGUAGES	Computer Human	R (e.g. tidyverse, data.table, ggplot2, caret) Python (e.g. numpy, pandas, scikit-learn, tensorflow) SQL, Git, Stata, LATEX. German (native), English (fluent), French (conversational).		
Methods Training	DIS TRAINING Applied Machine Learning, Oxford Internet Institute, 2022.			
	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.			
	Advanced C	Quantitative Research, Harvard University, 2019.		
POPULAR WRITING (SELECTED)	"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," $Population \ Europe.$			
	"Inequality o $Report$ .	f Opportunity in Asia and the Pacific: Clean Energy," <i>University</i>	ted Nations Policy	
Advisory work (recent)	External Co	onsultant ns Secretariat	2023	
	Data Science Fund for Gua	ce Advisor tranteed Income (F4GI)	2022	
		ist & Research Consultant inance, Government of the Netherlands	2021	
	Expert Adv Ministry of E	risor ducation, Culture, and Science, Government of the Netherla	2021 nds	
	Expert Adv Department f	risor for Education, Open Innovation Team, UK Government	2021	
	Freelance C Max Planck I	Consultant Enstitute for Demographic Research	2021	
Work Experience	Apadana Co Data Science	onsult, Amsterdam, Netherlands Consultant	2020–Present	
		ions, Bangkok, Thailand fairs Consultant	2015–2017	
	European P Robert Schur	Parliament, Brussels, Belgium nan Trainee	2015	

Invited Talks (recent)	" Minimizing entry into homelessness following eviction" Chair of Statistics and Data Science, LMU Munich	Aug 02, 2023
	" 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
	"Mapping Educational Inequalities During the Pandemic" European Commission Joint Research Centre (ECJR)	Apr 27, 2021
	"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
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,	

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 Terrorism and Political Violence, Proceedings for the National Academy of Sciences, Social Forces, American Political Science Review, Journal of Ethnic and Migration Studies, Economics & Politics, European Sociological Review, European Societies, and PLOS ONE.

## References

Professor Michael Biggs
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david.kirk@sociology.ox.ac.uk

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