Dilek Yildiz

Contact

International Institute for Applied Systems Analysis

Information Schlossplatz 1, 2361 Laxenburg, Austria

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Research Interests Bayesian modelling, data combining, migration estimation, big/social media data sources, digital demography, population projections, wellbeing, quality of education

SOFTWARE SKILLS • R, JAGS, SPSS, WinBUGS, OpenBUGS, ARCGIS, Stata

EDUCATION

Ph.D., Social Statistics and Demography

3 May 2016

University of Southampton, Southampton, UK

Thesis: Methods for Combining Administrative Data to Estimate Population Counts

M.Sc., Economic and Social Demography

August 2011

Hacettepe University, Ankara, Turkey

Thesis: Sampling Error Estimation by Using Different Methods and Software

in Complex Samples

B.Sc., Statistics September 2008

Middle East Technical University, Ankara, Turkey

ACADEMIC Positions

Vienna Institute of Demography (Research Scientist) Research Group: Human Capital Data Lab

February 2016 onwards

• Bayesian reconstruction of populations and vital rates by educational attainment (Principal Investigator)

• Quality of Education

May 2020 onwards September 2019 onwards

December 2017 onwards

• Measuring Labour Mobility and Migration Using

Big Data

January 2018 to February 2019

- Wittgenstein Centre Human Capital Data Explorer
- Combining Traditional and Emerging Big Data Sources to Model Population Movement Patterns

February 2016 to February 2017

International Institute for Applied Systems Analysis (Research Scientist) Research Group: Population and Just Societies Program July 2017 onwards

• Future Migration Scenarios for Europe (Work package leader) December 2019 onwards

Years of Good Life

January 2018 onwards

Demographic and Human Capital Scenarios for the 21st Century: 2018 assessment for 201 countries

December 2017 to April 2018

• Global Migration and Educational Expansion: Scenarios and Projections of Population-level Interactions hfill July 2017 to January 2018

University of Southampton (Researcher)

• Using Twitter Data for Population Estimates

February 2015 to June 2016

• Assessing Adaptive Cluster Sampling for Accessing the Pastoralist Population, Afar, Ethiopia September 2015 to November 2015

Hacettepe University

• Research Assistant, Technical Demography

December 2009 to August 2012

• Project Assistant, Turkey Demographic and Health Survey (Turkey DHS-2008)

November 2008 to December 2009

Note on list of publications: *Equal contribution and authors are listed alphabetically

Accepted

• Yildiz, D. and Abel, G. "Migration data challenges and opportunities" chapter in Handbook of Migration and Technology, Edward Elgar Publishing.

Published

- Lutz, W., Striessnig E., Dimitrova A.*, Ghislandi, S.*, Lijadia, A.*, Reiter, C.*, Spitzer, S.*, Yildiz, D.* "Years of Good Life (YoGL): A wellbeing indicator designed to serve as sustainability criterion", Proceedings of the National Academy of Sciences of the United States of America, 118(12), DOI: 10.1073/pnas.1907351118, 2021.
- Lutz, W., Reiter, C., Özdemir, C., Yildiz, D., Guimaraes, R., Goujon, A., "Skills-adjusted human capital shows rising global gap", Proceedings of the National Academy of Sciences of the United States of America, 118(7), DOI: 10.1073/pnas.2015826118, 2021.
- Reiter C, Özdemir C, Yildiz D, Goujon A, Guimaraes R, Lutz W. "The Demography of Skills-Adjusted Human Capital". IIASA Working Paper. Laxenburg, Austria: WP-20-006,http://pure.iiasa.ac.at/16477, 2020.
- Sobotka, T., Zeman, K., Spitzer, S., Reiter, C., di Lego, V., Yildiz D, Özdemir, C., Goujon, A., et al. (2020). European Demographic Data Sheet 2020. Wittgenstein Centre (IIASA, VID/OEAW, WU),2020.
- Gendronneau, C., Wisniowski, A., Yildiz, D., Zagheni, E., Fiorio, L., Hsiao, Y., Stepanek, M., Weber, I., Abel, G., Hoorens, S. "Measuring Labour Mobility and Migration Using Big Data: Development of a Method to Measure Mobility Flows and Stocks within the EU Based on Data from Social Media." European Commission Directorate General for Employment, Social Affairs and Inclusion, DOI: 10.2767/474282, 2019.
- Abel, G.*, Barakat, B.*, Bengtsson, S.*, Hartman, K.*, KC, S.*, Yildiz, D.* "GEMR background report" Global migration and educational expansion: Scenarios and projections of population level interactions", UNESCO,ED/GEMR/MRT/2018/P1/37, 2018.
- Potančokova, M., Yildiz, D. "Future demographic trends in Eastern Europe and Central Asia", chapter in *Demographic and Human Capital Scenarios for the 21st Century: 2018* assessment for 201 countries, DOI: 10.2760/41776, 2018.
- KC, S., Lutz, W., Potančokova, M., Abel, G.*, Barakat, B.*, Eder, J.*, Goujon, A.*, Jurasszovich, S.*, Sobotka, T.*, Speringer, M.*, Striessnig, E.*, Wurzer, M.*, Yildiz, D.*, Hyun Yoo, S.*, Zeman, K.* "Approach, methods and assumptions", chapter in Demographic and Human Capital Scenarios for the 21st Century: 2018 assessment for 201 countries, DOI: 10.2760/41776, 2018.
- Yildiz, D., Munson, J., Vitali, A., Tinati, R. and Holland J. "Using Twitter Data for Demographic Research", *Demographic Research*, 37(46): 1477-1514, 2017.
- Yildiz, D., Adali, T. "Demographic transition and development of Belt and Road countries: Turkey", Country report, One Belt One Road Initiative, 2017.
- Yildiz, D., Smith, P. W. F. and van der Heijden, P. G. M. "Extending log-linear capture-recapture models to handle erroneous records in linked administrative data to estimate population counts", VID Working Paper: 15/2017.
- Yildiz, D., Smith, P. W. F. "Models for combining aggregate level administrative data in the absence of a traditional census", *Journal of Official Statistics*, 31(3): 431-451, 2015.

- Raymer, J., Yildiz, D., Smith, P.W.F. "Review of Methods for Estimating Populations with Administrative Data", Consultancy report for the National Records of Scotland, 2013.
- Turkyilmaz, A. S., Ozgoren, A., **Yildiz, D.** "Differentials in receiving postpartum care of infants and its determinants in Turkey", *The Turkish Journal of Pediatrics*, 55: 172-179, 2013.
- Yuksel, I., Yildiz, D., Eryurt, M. A., Irez, M. "Male Contraceptive Use in Turkey: Determinants of Withdrawal and Condom Use", chapter in *Turkey Demographic and Health Survey 2008 Further Analysis*, ISBN: 978-975-491-290-6, 2010.
- Turkyilmaz, A. S., Ozgoren, A., **Yildiz, D.**, Bilgin, S., Tezel, B. "Differentials in Receiving Postpartum Care and Its Determinants in Turkey", chapter in *Turkey Demographic and Health Survey 2008 Further Analysis*, ISBN: 978-975-491-290-6, 2010.
- Yildiz, D., Koc, I. "The change in the mean number of children of parliament members in Turkey: A comparative analysis with the overall population", *Turkish Journal of Population Studies*, 30-31: 3-12, 2008-09.

Under review

• Yildiz, D., Arslan H., Cavlin, A. "Understanding women's wellbeing in Turkey", submitted to Vienna Yearbook of Population Research.

Papers in Preparation

- Yildiz, D., Wisniowski, A., Abel, G., Zagheni, E., Weber, I., Hoorens, S. "Combining traditional and social media bilateral migration data"
- Yildiz, D., Adali, T. The demography of Turkey, Population and Societies, INED Newsletter.

Scientific talks Invited Presentations and Lectures

"Using R in demography" (in Turkish), Why R? Turkey Conference, online conference
"Want to know how you can better organise your PhD life?",
ViDSS Brownbag lunch
February 2021

• "A Bayesian approach on reconstructing multistate populations and education specific fertility rates", United Nations expert group meeting

on Methods for the World Population Prospects 2021 and Beyond

April 2020

- "Measurement and methods in estimating international migration" in Migration and Development, BSc Lecture, University of East Anglia, UK

 October 2019
- "Demographic research" in Contemporary Migration Research,
 MSc Lecture, Masaryk University, Czech Republic
 March 2019
- "A new era for migration data? Innovative methodologies and data integration", EuroScience Open Forum, Panel, Toulouse, France July 2018
- "Probabilistic methods for combining internal migration data",
 University of Manchester, UK
 March 2017

Presentations

• IUSSP workshop on Digital Demography in the Era of Big Data, Seville, "Combining traditional and social media bilateral migration data" June 2019 • Population Association of America Annual Meeting, Austin, USA: "Combining traditional and social media bilateral migration data" April 2019 • British Society for Population Studies, Winchester, UK: "Global projections of in- and out- migrants by educational attainment" September 2018 • European Population Conference (EPC), Brussels, Belgium: "A Bayesian approach on reconstructing multistate population and education-specific fertility rates" June 2018 • International Union for the Scientific Study of Population, XXVIII International Population Conference, Cape Town, South Africa: October 2017 Discussant: "Social media, web and demography" • British Society for Population Studies, Liverpool, UK: "Bayesian reconstruction of multistate populations" September 2017 • Population Association of America Annual Meeting, Chicago, USA: "Bayesian reconstruction of multistate populations" April 2017 • British Society for Population Studies, Winchester, UK: "Assessing uncertainty when combining administrative data to estimate population counts" September 2016 • Royal Statistical Society International Conference, Exeter, UK: "Assessing uncertainty when combining administrative data to estimate population counts" September 2015 • Joint Statistical Meetings, Seattle, USA: "Assessing uncertainty when combining administrative data to estimate population counts" August 2015 • Royal Statistical Society International Conference, Sheffield, UK: "Extending log-linear capture-recapture models to handle erroneous records in linked administrative data to estimate population counts" September 2014 • European Conference on Quality in Official Statistics, Vienna, Austria: "Assessing the accuracy of different models for combining aggregate level administrative data" June 2014 • 36th Annual Research Students' Conference in Probability, Statistics and Social Statistics, Lancaster, UK: "Quality measures of population and demographic statistics" March 2013 • I. Ulusal Nufusbilim Kongresi (I. National Population Studies Congress), Ankara, Turkey: "Differentials in access to reproductive health services: rich and poor" October 2010

Third-party funding

Acquired

• Princicipal Investigator, Austrian Academy of Sciences Innovation Fund	
"Research, Science and Society"	2020-2021
• Work package leader, "Future Migration Scenarios for Europe"	
European Commission Horizon 2020 project	2020-2022
• Joint Office for National Statistics-Economic and Social Research	
Council Doctoral Training Centre +3 Research Studentship	2012-2015

Under review

 $\bullet\,$ 1000 Ideas Programme, FWF, "Migration intentions and behaviour"

ACADEMIC ACTIVITIES

- Supervisor in IIASA Young Scientists Summer Program
- Reviewer: Demography, Applied Geography, Population and Environment, Journal of Official Statistics, IUSSP 2021
- Academic counsel for Regional Academy on the United Nations

Additional Training

• Third-Party-Funding Acquisition: Austrian funding landscape,	
Austrian Academy of Sciences	October 2019
• Demographic Applications of Bayesian Models, Max Planck Institute	
for Demographic Research	June 2016
• Hierarchical Modelling of Spatial and Temporal Data, University of	
Southampton	June 2015
• Time Series Analysis, Certificate/Diploma/MSc in Official Statistics,	
University of Southampton	February 2015
• Generating Synthetic Data for Statistical Disclosure Control, ADRC-E,	
University of Southampton	December 2014
• Probabilistic Population Projections: Theory and Practice, Max Planck	
Institute for Demographic Research	November 2014
• Analysis of Linked Datasets, ADRC-E, University of Southampton	October 2014
• ADRN Accreditation Training, ADRC-E, University of Southampton	June 2014
• Data Linkage: From Theory to Practice, ADRC-E, University of	
Southampton	April 2014
• Applied Multilevel Modelling, S3RI, University of Southampton	February 2014
• Introduction to Bayesian Analysis and MCMC, University of Southampt	on April 2013

TEACHING EXPERIENCE

Social Statistics and Demography, University of Southampton Teaching assistant

Research Methods in the Social Sciences (BSc),	Semester 1 2015-16
Quantitative Methods I (MSc),	Semester 1 2015-16
Introduction to Quantitative Methods (BSc),	Semester 2 2014-15
Quantitative Methods I (intensive) (MSc),	Semester 2 2014-15
Quantitative Methods I (MSc),	Semester 2 2014-15
Research Methods in the Social Sciences (BSc),	Semester 1 2014-15

Institute of Population Studies, Hacettepe University Teaching assistant

Sampling Techniques (MSc),	Semester 2 2010-11
Social Survey Methodology (MSc),	Semester 1 2010-11