

Cara Davies

cmucce01@gmail.com | 502.264.3873 | [linkedin.com/in/caramdavies](https://www.linkedin.com/in/caramdavies)

DATA SCIENCE AND ANALYTICS

Data Visualization | Applied Statistics | Machine Learning | Data Mining | Survey Design
Python | Stata | SAS | R | Power BI | Tableau | SQL

EDUCATION & CERTIFICATIONS

Indiana University

Ph.D. in Sociology

Expected May 2022

M.Sc. in Applied Statistics

May 2017

M.A. in Sociology

Feb. 2015

Cambridge University

M.Phil. in International Relations

Jul. 2011

University of Louisville

B.A. in French and Political Science

Dec. 2008

PROFESSIONAL EXPERIENCE

LG&E and KU Energy

Senior Data Analyst, HR

Jul. 2020 – Present

- Managed the analytics of our corporate covid-19 response to track confirmed and suspected cases, compare company trends with local trends, and forecast peak infections
- Partnered closely with our IT department to upgrade the HR data warehouse, identifying data needs and recommending appropriate warehousing methodologies for data storage
- Redesigned the new hire and exit survey process, improving survey question precision to lead to actionable results and increasing overall response rates for managers and employees
- Presented findings to senior leaders and executives and led workshops at national and international people analytics conferences, including People Analytics World

Data Analyst II, HR

Aug. 2019 – Jul. 2020

- Built interactive dashboards combining administrative records and survey data to track metrics throughout the employee lifecycle, including hiring, succession planning, and turnover
- Developed and deployed a predictive model for employee turnover, utilizing cutting-edge machine learning algorithms and maintaining a high level of accuracy and precision
- Applied statistics to hiring, compensation, and promotion practices to improve equity within job groups and locations across a wide variety of protected categories
- Provided thought leadership to the analytics community to facilitate the sharing of data science best practices, technology challenges, and ongoing opportunities in analytics

Humana, Inc.*Data Analyst, Marketing**Nov. 2018 – Dec. 2019*

- Developed in-depth member profiles to inform marketing strategy for over 3 million Medicare members by synthesizing data collected from across the enterprise
- Led analytics projects relating to customer journey mapping, retention, and member engagement using nonparametric correlations and descriptive statistics
- Partnered across multiple lines of business to test a data-driven, bespoke communications experience for Medicare members, by providing power calculations to determine sample sizes, identifying KPIs, and addressing data limitations

Edj Analytics*Data Analyst**Feb. 2018 – Nov. 2018*

- Assessed client data containing millions of observations from industries ranging from healthcare to banking and performed all data cleaning and feature engineering necessary
- Developed illustrative examples of use cases for presentation to project stakeholders, including technical and non-technical audiences
- Collaborated with other data analysts, data scientists, and project managers on multiple concurrent predictive analytics projects

Indiana University*Research Assistant**Aug. 2013 – May 2017*

- Engaged in end-to-end data collection processes using qualitative and quantitative methods for three distinct research projects leading to peer reviewed publications
- Supervised 22 graduate and undergraduate student interviewers at the Survey Research Center
- Analyzed local economic data for the Indiana Business Research Center's award-winning STATS Indiana web service
- Conducted independent research and presented results at local and national conferences

TEACHING EXPERIENCE

University of Louisville*Master of Science in Business Analytics**Summer 2020 – Present*

- MSBA 605: Programming for Analytics
- MSBA 620: Data Analytics I
- MSBA 680: HR Analytics

*Master of Business Administration**Fall 2020 – Present*

- MBA 631: Introduction to Statistics and Data Analysis

Indiana University*Bachelor of Arts in Sociology**Spring 2014 – Present*

- SOC 110: Understanding Social Data

VOLUNTEER EXPERIENCE

Schuessler Institute of Social Research*Graduate Student Appointee**Aug. 2015 – May 2016*

- Served on the Infrastructure Committee representing graduate student concerns

PEER REVIEWED PUBLICATIONS

Uccellini, Cara. (2012) “Romanian Migration to Italy: Insiders and Outsiders.” In *Globalization, Migration, and the Future of Europe: Insiders and Outsiders*, edited by Leila Simona Talani. New York, NY: Routledge Press.

Davies, Cara M. (2011) “‘Backseat Driving’: European Institutions and Crisis Management in Moldova.” *Romanian Journal of Political Science*, Vol.11(2): 129-153.

Uccellini, Cara M. (2010) “‘Outsiders’ After Accession: The Case of Romanian Migrants to Italy, 1989-2009.” *Political Perspectives: Rethinking Migration and Belonging in the 21st Century*, Vol.4(2): 70-85

Davies, Cara. “Remitting Refugees: Differences in Economic Transnationalism among New Legal Permanent Residents in the United States.” *Under Review*.

Davies, Cara. “Born for the Bureaucrats: Pronatalist Policies and European Attitudes Towards Childbearing.” *Manuscript in Progress*.

Davies, Cara. “Inclusion, Exclusion, and the European Union: Changes in Attitudes Towards Immigrants After Accession.” *Manuscript in Progress*.

Davies, Cara. “Migration, Regionalism, and Networks in the Eurovision Song Contest.” *Manuscript in Progress*.

CONFERENCE PRESENTATIONS

People Analytics World

How to Map the Employee Experience Using Customer Journey Analytics 2021

American Sociological Association

Pronatalist Policies and European Attitudes Towards Childbearing 2015

Midwest Sociological Society

Born for the Bureaucrats: Pronatalist Policies and European Attitudes Towards Childbearing 2016

Refugees and Transnationalism: A Comparative Approach 2015

North Central Sociological Association

Inclusion, Exclusion, and the European Union: Changes in Attitudes Towards Immigration After Accession 2015

Migration, Regionalism, and Networks in the Eurovision Song Contest 2014
