

Bea Capistrant

Pronouns: she/they

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LinkedIn Profile: www.linkedin.com/in/becapistrant | Website: www.beacapistrant.com

Population Health & Data Science Specialist

Machine Learning

Data Visualization

A/B Testing

Factor / Principal Component Analysis

Stakeholder Engagement

Regression & Predictive Modeling

Relational Databases

Data Wrangling

Survey Data

Technical Writing & Presentation

Degrees:

PhD, Social & Behavioral Sciences, Harvard University (2012)

MS, Social & Behavioral Sciences, Harvard University (2008)

BA, History & Political Science, Boston University (2003)

Industries:

Health & Health Care, Pharma/Biotech, Public Sector, Non-Profit

TECHNOLOGIES

Python	R	SQL	SAS	Stata
Jupyter / RMarkdown	matplotlib / seaborn / ggplot2			scikit-learn / tidymodels
dbt	Google Cloud Platform		HTML & CSS	Git

WORK HISTORY

Staff Data Scientist, Cityblock Health, New York, NY

(11/20 - present)

- Led company-wide data science experimentation and outcome research initiatives
- Designed and analyzed company's first A/B tests, which showed 14 percentage-points higher member engagement based type of member outreach
- Created evaluation studies for 8 clinical programs to quantify health and cost outcomes
- Evaluated and refined predictive models for unplanned hospital admissions

Associate Professor of Social Work (with tenure), Smith College, Northampton, MA **(2/20 – 11/20)**

- Engineered [Shiny-based apps to teach programming skills and statistical analysis](#) with a focus on social and behavioral science users

- Coordinated programmers working on developing interactive, open-source tutorials on statistics and modeling in R
- Programmed data cleaning algorithms to automate technical data reports from clinical research studies
- Hired and oversaw 15 adjunct faculty as interim department head of Research
- Organized and lead annual retreat for 15 faculty and administrators

Assistant Professor of Statistical & Data Science, Smith College, Northampton, MA (2017-2020)

- Built data package in R to facilitate use of large data sets (2.3 million observations) from annual health surveys ([brfssR](#))
- Employed complex data sources and statistical modeling to investigate health disparities in mental health, substance use, and self-harm that led to 3 peer-reviewed publications and multiple presentations that articulate mental health policy recommendations
- Provided statistical analysis expertise for multiple randomized clinical trial designs (akin to AB testing)
- Taught [Multiple Regression](#) (including prediction, logistic regression, machine learning) modeling in R with course evaluations above college average (3.68 / 4) and mentored junior data science students on myriad analytics and data sources

Assistant Professor of Epidemiology, University of Minnesota, Minneapolis, MN (2013-2017)

- Built predictive models and collaborated with expert peers on costs & health care utilization to recommend solutions for [Medicaid long term supports & services policy to state policymakers, stakeholders & constituents](#)
- Crafted study designs of successful research grants from American Cancer Society, University of Minnesota Global Spotlight; co-Investigator on National Institutes of Health (NIH) funded studies (total: >\$5million)
- Fit regression models and communicated technical research study findings (18 peer-reviewed articles & 15 conference presentations) on major public health problems like hypertension, stroke, kidney disease, frailty, dementia, & disability
- Successfully mentored postdoctoral scholars in regression, technical communication

EDUCATION

Postdoctoral Training, Demography, University of North Carolina – Chapel Hill	(2013)
Doctor of Science, Social & Behavioral Sciences, Harvard University	(2012)
Master of Science, Social & Behavioral Sciences, Harvard University	(2008)
Bachelor of Arts, History & Political Science, Boston University	(2003)

ADDITIONAL EXPERIENCE

➤ **Volunteering**

Member, Council on Aging, Northampton, MA (2019-present)

- Advised Mayor about aging related policies and programs and Participated in public listening sessions with multiple constituents

➤ **Awards**

- **Fesler-Lampert Chair in Aging Studies**, University of Minnesota (2014-2015)
- **Dissertation Fellowship**, Hewlett Foundation (2011-2012)
- **Pre-Doctoral Fellowship**, American Heart Association (2009-2011)

➤ **Selected Publications (of 60 total)**

- Capistrant, B. D., Glymour, M. M., & Berkman, L. F. (2014). [Assessing mobility difficulties for cross-national comparisons: results from the world health organization study on global ageing and adult health](#). *Journal of the American Geriatrics Society*, 62(2), 329-335.
- Capistrant, B. D., Wang, Q., Liu, S. Y., & Glymour, M. M. (2013). [Stroke-associated differences in rates of activity of daily living loss emerge years before stroke onset](#). *Journal of the American Geriatrics Society*, 61(6), 931-938.
- Capistrant, B. D., Moon, J. R., Berkman, L. F., & Glymour, M. M. (2012). [Current and long-term spousal caregiving and onset of cardiovascular disease](#). *J Epidemiol Community Health*, 66(10), 951-956.

➤ **Consulting Work & Prior Experience**

Health Outcomes Analytic Advisor, Praava Health, Dhaka, Bangladesh (2017-2019)

- Generated study designs for health outcomes evaluation of membership plans of healthcare provider startup in emerging economy
- Advised on health IT system Infrastructure, and facilitated connections to data science teams to work with database querying for medical records

Program Evaluation Consultant, Bronx Partnership for Healthy Communities, Bronx, NY (2018)

- Conducted 4 session capacity building training on health outcome evaluation for Medicaid Delivery System Reform and Incentive Payment (DSRIP) program site
- Provided research capacity technical assistance to support readiness for value-based care arrangements to 12 community-based health organizations

Program Evaluation Consultant, Centers for Disease Control & Prevention, Atlanta, GA/New York, NY (2007)

- Created study design to evaluate a CDC funded training to reduce environmental health within multiple New York City municipal departments

Study Manager, Fenway Health, Boston, MA (2004-2006)

- Oversaw day-to-day research operations of a randomized controlled trial and a quasi-experimental study (n=400 total) of an HIV risk prevention intervention