

Ke ZENG

HEALTH ECONOMICS & POLICY RESEARCHER | CAUSAL INFERENCE | FEDERAL & STATE PROGRAM EVALUATION | NORC

1828 L Street NW, 9th Floor. Washington, DC 20036

☎ (+1) 646-732-4074 | ✉ youxiang@kezeng.xyz | 🏠 kezeng.xyz | 📍 Ortsang | 🌐 Ke Zeng | 🐦 @KeZeng7

Summary

Applied health economist and federal program evaluator with 7+ years designing causal inference frameworks for CMS, CMMI, CDC, and state agencies. Specialized in large-scale quasi-experimental evaluation of value-based care, Medicaid policy, and healthcare market consolidation. Currently augmenting econometric expertise with AI/ML at UPenn to advance real-world evidence generation in complex health systems.

EDUCATION

PhD in Economics @ Graduate Center, City University of New York	Aug. 2017 - June. 2023
Master of Applied Science in CS, with focus on Artificial Intelligence @ University of Pennsylvania <i>part-time; augmenting applied econometrics with ML/AI methods for health related applications</i>	Jan. 2026 - Present
Master of Science, Major in Intl' Economics @ Lund University, Lund Sweden	Aug. 2015 - Jun. 2016
Bachelor of Economics, Major in Finance, @ Northeastern University, Shenyang, China	Sep. 2011 - Jul. 2015

SKILL

Econ./Stat.	Causality (DiD, RD), Bayesian, A/B testing & experiment, Time series analysis (ARIMA, VAR), ML-enforced
Program'g	Python (TensorFlow, Scikit-Learn, Keras, GRF&EconML), Stata, R, Matlab, 𐀀𐀁𐀂, SAS, Google CoLab
Databases	Pandas, Numpy, SQL&NoSQL; Data HCUP, American Community Surveys, Current Population Survey
Domains	Medicare/Medicaid policy, Value-based care, Healthcare market consolidation (M&A/PE), Health equity - Oncology outcomes (RWE), Chronic disease program evaluation, Federal program evaluation (CMS/CMMI/CDC)
Languages	Mandarin, Cantonese, English, Hakka, French(A2), Japanese(N3)

EXPERIENCE

NORC at the University of Chicago

New York, USA

RESEARCH SCIENTIST

Sep. 2023 - Current

- Lead end-to-end quantitative evaluation engagements for federal and state clients (CMS, CMMI, AARP, CDC, CA HCAI) — from methodology design through stakeholder reporting — spanning value-based care, Medicaid policy, market consolidation, and chronic disease programs.
- Co-lead quantitative evaluation of ACO-REACH (CMMI), the largest national ACO program (300 ACOs, millions of beneficiaries); analysis contributed to identification of \$1.643B in federal expenditure savings and directly informed CMS model continuation decisions;
 - Designed subgroup analysis for High Needs ACOs — targeting beneficiaries with frailty, high-risk scores, or elevated nursing home utilization — applying small-sample correction methods to ensure statistical reliability of findings.
 - Proposed methodological enhancements to the existing DiD framework — including refined comparison group construction and parallel trends validation — increasing estimate precision and reducing variance in beneficiary-level outcome models.
- Lead analysis of private equity M&A impacts on healthcare provider outcomes (quality, cost, access); deployed an on-premise LLM to extract PE-provider ownership linkages from unstructured legal and financial databases — enabling market consolidation mapping infeasible with structured data alone.
- Developed the end-to-end cost and market impact review(CMIR) evaluation framework for California HCAI, delivering expert economic opinions on M&A impacts across 10+ cases (including Astrana Health/Prospect Group and NOR Healthcare/Prospect Medical Holdings); findings contributed to conditional approval determinations and informed state-level healthcare consolidation oversight policy.
- Applied DiD, regression discontinuity, and propensity score matching across multiple evaluations to isolate program effects on cost, utilization, and quality — translating causal estimates into actionable policy recommendations for federal and state sponsors.
- Authored and co-authored federally submitted evaluation reports translating complex causal findings into policy-actionable insights for non-technical sponsors:
 - AARP: Medicaid Redetermination Prediction and Analysis
 - Covered California: Evaluation of California Enhanced Cost-Sharing Reduction Program
 - Centers for Disease Control and Prevention: Hypertension Pharmacists Program Evaluation
- Led development of competitive grant and contract proposals to CA HCAI, CMMI, and CalPERS — all awarded; secured continued funding for multi-year healthcare evaluation programs.

COTA

New York, USA

MEDICAL RESEARCH INTERN, ONCOLOGY RESEARCH

Jun. 2022 - Aug. 2022

- Conducted real-world evidence (RWE) analysis of ICI therapy outcomes using survival analysis and propensity score matching (R); findings on PD-1/PD-L1 multi-line regimens adopted company-wide, triggering protocol and pipeline changes in inhibitor interpretation.
- Proposed analysis methods, including Causality and ML methods, and executed research plans to interpret patient record outcomes. Summarized findings into reports, with one report leading to company-wide changes in inhibitor interpretation protocol and process pipeline.
- Developed synthetic control arm pipeline using tree-based causal methods to simulate counterfactual patient outcomes — providing a scalable alternative to randomized trial comparators for oncology RWE studies.
- Built reusable ICI regimen search and classification pipelines deployed across all company research teams.

World Bank Group & Data Whale

New York, USA

EXTERNAL CONSULTANT

Jun. 2021 - Mar. 2023

- Led the data projects Health Equity and Financial Protection Indicator (HEFPI) and Multiple Indicator Cluster Survey by proposing ETL (Extract, Transform, Load) workflows from surveys, covered 38 countries for 20 years, with more than 200 variables and millions of observations, coded in Stata.
- Mentored and supervised a team of 3 junior data professionals, providing guidance and training to ensure they were able to quickly adapt to the project requirements and produce high-quality work.
- Collaborated with cross-functional teams in WBG including public health researchers and policymakers to ensure the project results were actionable and impactful in addressing health and financial disparities.

Immigration Research Initiative

New York, USA

QUANTITATIVE ANALYST

Nov. 2021 - Mar. 2023

- Utilized a dataset of 15 million observations and 59 variables reflecting the US population universe to create models that accurately abstracted the living and employment status of immigrants in the US, resulting in a 99% precise match with results from the Census Bureau, coded in R.
- Developed a data abstraction pipeline that created 30+ data outputs, showcasing the working and living standards of New York State's population and covering 90% of annual report outcomes.
- Generated interactive dashboards that visualized the results of 20+ geographies and 200+ occupations in R, which were applied to multiple organizational reports and presentations.
- Provided data and technical assistance to six partner organizations, supporting their data analysis and interpretation efforts.

Fiscal Policy Institute

New York, USA

DATA ANALYST

Jan. 2019 - Nov. 2021

- Built time-series employment models (ARIMA/Pandas) tracking labor market outcomes for undocumented immigrant workers across NY industries — analysis cited in policy advocacy that informed allocation of the \$2.1B NYS Excluded Worker Fund.
- Produced the first publicly available longitudinal employment gap analysis for immigrant workers in NY; findings adopted by policymakers and advocacy partners as primary evidence base for program design.

City University of New York

New York, USA

LECTURER

Sep. 2018 - Aug. 2021

- Taught graduate econometrics and undergraduate macroeconomics at Hunter and Brooklyn College (CUNY); RateMyProf 4/5.

EARLIER EXPERIENCE

UN Environment & UNDP, Beijing — Intern (2016–2017)

Supported high-profile international sustainable development events and executive operations.

ACHIEVEMENT

2024	Award , Employee Recognition Award, 2023-2024, NORC at the University of Chicago	New York, USA
2021	Fellowship , Graduate Center Fellow, 2021 Fall, Graduate Center, CUNY, 12000 USD Grant * 2	New York, USA
2020	Fellowship , ARC fellowship, 2020 Spring, Graduate Center, CUNY, 5000 USD Grant	New York, USA

PROFESSIONAL ACTIVITIES

Reviewer	<i>Computational Economics</i> <i>Psychology & Sexuality</i> ASHEcon Annual Conference
Mentee	Committee on the Status of LGBTQ+ Individuals in the Economics Profession
Discussant	ASHEcon Annual Conference Society of Government Economists 2025 Annual Conference Annual Meeting of the Southern Economic Association

PRESENTATION

2025	Presenter , Society of Government Economists 2025 Annual Conference	Washington, DC
2024	Session Chair, Presenter , SEA 94th Annual Meeting	Washington, DC
2024	Presenter , WEAI 99th Annual Conference program	Seattle, WA
2024	Presenter , 13th Annual Conference of American Society of Health Economists	San Diego, CA
2024	Presenter , 13th Annual Conference of American Society of Health Economists	San Diego, CA
2023	Chair, Presenter , 12th Annual Conference of American Society of Health Economists	San Louis, MO
2022	Chair, Presenter , 11th Annual Conference of American Society of Health Economists	Austin, TX
2022	Presenter , 92nd Annual Meeting of the Southern Economic Association	Fort Lauderdale, FL