Sean Kiely

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SUMMARY

Economist with a Ph.D. in Applied Economics and 5+ years of experience in causal inference. Expertise in reduced-form causal analysis, data wrangling, and data visualization, with a strong track record of developing statistical and econometric models using Python, R, Stata, and SQL. I translate complex quantitative analyses into clear, actionable insights that inform decision-making.

SKILLS

- **Tools**: Python, SQL, R, Stata, Git, LaTeX, Excel
- **Methods**: Linear and Logistic Regression, Randomized Controlled Trials (RCTs), Difference-in-Differences (DiD), Event Studies, Synthetic Control (SCM), Synthetic Differences-in-Differences (SDiD), Regression Discontinuity (RDD), Instrumental Variables (IV), Propensity Score Matching (PSM), Nearest Neighbor Matching, Entropy Balancing
- **Data Science:** Causal Inference, A/B Testing, Statistics, Data Analysis, Data Visualization, Machine Learning

WORK EXPERIENCE

Postdoctoral Fellow   Jul 2024 – Present
National Bureau of Economic Research – Cambridge, MA
Behavior and Marketing Project
- Conducted RCT to identify how chemical defoliant exposure during Vietnam War generates motivated beliefs for food safety information
- Used regressions and entropy balancing to estimate WTP for food safety information, 1/3 standard deviation (SD) lower for treated group
- Led experimental and survey design for 729 participants; managed timeline budgeting, and trained 20 enumerators

Traffic Safety Projects
- Assessed effectiveness of ignition interlock devices (IID) and lower BAC laws to curb traffic fatalities
- Implemented event study model to estimate 6% decline on average in traffic fatalities per 100M VMT following IID laws using Python (statsmodels, matplotlib, seaborn)
- Implemented synthetic difference-in-differences to estimate a 20% decline in vehicle fatalities following Utah's 0.05 BAC law
- Constructed a 30-year, state-level database by integrating 19 public datasets using Python (pandas, NumPy)

Graduate Researcher (Causal Inference)   Jan 2018 – Jul 2024
UC Davis – Davis, CA
Risk Project
- Analyzed how a natural disaster leads to systemic alterations in risk preferences, a key determinant in decision-making
- Estimated one SD increase in treatment led to 0.23 SD increase in risk aversion and behaviors, with effects persisting over four years
- Applied difference-in-differences using excess rainfall within 5 km centroid of village as treatment to estimate impact
- Created balanced panel data with 572 households linking satellite data at the village level using Stata, R, and Google Earth Engine

Health and Poverty Project
- Evaluated short-and long-term vulnerability to poverty of households with disabled member to inform policy interventions
- Found households with disabled member to be more vulnerable to poverty in the long-term, highlighting need for social programs
- Modeled poverty dynamics using asset-based income generating capacity with panel data from 1,400 households

Education Project
- Leveraging randomized attendance policies to estimate impact on academic performance at university level
- Found incentivized participation improved performance by 12% over no attendance policy and outperforms mandatory attendance
- Extracted and linked data from course websites, student record data, and surveys for 394 students across four courses

Teaching Assistant   Sept 2016 – Jul 2024
UC Davis – Davis, CA
- Served as solo or lead TA managing course logistics in collaboration with faculty for up to 150 students
- Developed and led discussion sections, graded assignments, and mentored undergraduate students conducting research projects

INDEPENDENT PROJECTS

ELO Project
- Built custom Elo rating system for MMA incorporating rating decay and outcome-based adjustments to reflect skill dynamics
- Scraped and cleaned 45,000 bouts across 3,800 athletes from Wikipedia in Python (BeautifulSoup)

NFL Project
- Analyzed and visualized NFL kicker performance and field-goal success rate across eras using play-by-play data in Python

EDUCATION

Ph.D.: Applied Economics   Sept 2019 – Dec 2024
UC Davis - Davis, CA

MSc: Applied Economics and International Agricultural Development   Sept 2016 – Aug 2019
UC Davis - Davis, CA

BSc: Environmental Resource Management and Community, Environment, and Development   Aug 2009 – Dec 2013
Pennsylvania State University - State College, PA