Danial Hoepfner
Quantitative Social Scientist

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Phone and Address

Redacted

Programming

- ▼ Stata ■■■■■
- ▼ Python ■■□□□
- ▼ LaTeX ■■■■□
- ▼ HTML ■■■□□
- ▼ cURL and API ■■■□□
- ▼ R ■□□□□

Analysis

- ▼ Structural equations
- ▼ Experimental design
- ▼ Quasi-experimental design
- ▼ Multi-level and panel
- ▼ Maximum likelihood
- ▼ Regression
- ▼ Survey/Qualtrics
- ▼ Web scraping
- ▼ Sampling

Certifications

- ▼ What Works Clearinghouse Group Design Reviewer
- ▼ Weikart Program Quality Assessment

Productivity

- ▼ Autohotkey
- ▼ Microsoft Office
- ▼ Slack
- ▼ Mavenlink (Kantata)

Example .ados

- ▼ qualtrics
- ▼ gtab
- ▼ fmtexl
- ▼ apchx

Highlights

Quantitative Data Analysis: 9.3 years of professional experience conducting sophisticated data analysis for program evaluation and survey projects. Known for finding creative solutions to analytic and programming problems. Experience with various regression and quasi-experimental designs, including multi-level models, structural equation models, Mahalanobis and propensity score matching. Create compelling and informative visualizations and report-ready tables.

Data Management: Extensive experience in creating analytic datasets from a variety of sources, including surveys, school district and college administrative data, statewide student data, and publically available data. Adept at checking, cleaning, merging, and appending messy, incomplete, and poorly structured data for analysis. Able to use APIs and web scraping to gather and incorporate publically available data.

Productivity: Able to automate tasks in all aspects of research, including data gathering and processing; output for checking data integrity; subunit PDF reports; survey response rates and resources web portals; web scraping; API interaction. Skilled at writing extensible code and programs to speed data management and reporting tasks. Typically work on multiple projects with competing deadlines in a fast-paced environment.

Work Experience

Gibson Consulting   **Director in Research and Evaluation Group**   **May 2016 to Now**

Director for an Austin-based education research and consulting firm on program evaluation and survey projects. Manage projects, provide training and support for junior quantitative staff, participate in group and firm decision-making. Conduct innovative analysis using a wide variety of methods. Create impressive visualizations and automated summary reports. Streamline and automate most aspects of data collection, preparation, analysis and reporting.

University of Pittsburgh   **Research and Teaching Fellow**   **August 2010 to May 2016**

Worked as a research and teaching fellow and taught independently. Worked as part of a team to develop and modify theories and derive hypotheses. Gathered, formatted, merged, and reshaped data from a wide variety of sources. Delivered innovative reports and datasets which exceed expectations. Presented complicated quantitative and conceptual material in a way understandable to non-experts.

Education

ABD, Political Science   **University of Pittsburgh**   **2010-2016**

GPA 3.838

Fields: Comparative Politics, International Relations, and Quantitative Methods

Completed coursework, comprehensive exams, and dissertation overview defense.

Master of Science, Political Science   **University of Utah**   **2008-2009**

GPA 3.918

Fields: International Relations and Comparative Government

Best graduate student paper in political science, 2009

Bachelor of Science, Political Science   **University of Utah**   **2003-2007**

GPA 3.596

Honors, minors in German and Chemistry

Selected Projects

Evaluation of Project-Based Curriculum for AP Government and Environmental Science

Analyst for a randomized controlled trial and quasi-experimental program evaluation. Cleaned, checked, and standardized messy and often incomplete data across five school districts across the nation over three years. Cleaned and standardized data that required significant manipulation using regular expressions to extract components, numerous reshapes, merges, and appends, extensive checking for missing or incorrect data elements, and considerable quality control checking. Developed clean tables and informative figures for reporting.

Methods: Automated data checking and recoding procedures, regular expressions, management of disparate, and poorly organized data sources.

Evaluation of Project-Based Curriculum for AP Physics

Lead analyst for a quasi-experimental design project using teacher distance matching, student inverse proportional weighting, and logistic and generalized ordinal logistic regression adjustment. Received, checked, and cleaned messy and incomplete district data. Designed the evaluation plan, and conducted analysis including teacher and covariate sensitivity checks.

Methods: Mahalonbis distance matching, inverse proportional weighting, logisitic and generalized ordered logistic regression adjustment, teacher and model specification checks.

Student, Parent, and Staff Satisfaction Surveys

Lead analyst for annual student, parent, and staff satisfaction surveys for a large suburban school district. Receive student, staff, and parent data, clean and combine data for survey administration and analysis. Develop student sampling and distribution plans. Develop and maintain an extensive web portal that tracks response rates for each survey. Descriptive reporting, and analysis for research questions of interest to the district, including what factors relate to satisfaction and analysis of enrollment and transfer trends.

Methods: Structural equation models, multi-level models, sampling, confirmatory and exploratory factor analysis, automated descriptive reporting, HTML, LaTeX.

Statewide Surveys of Parents of Students Receiving Special Education Services

Project director and lead analyst for two annual statewide surveys of parents and students receiving special education services in Texas. Request student records from the state, check for accuracy, conduct sampling, generate lists selected students in several formats, develop and maintain a web portal for school district and regional representatives that includes registration, administration information, and current response rates. Download and clean data, including checks for manipulation. Design compelling district, regional, and statewide summary reports and statewide narrative reports. Ensure the accuracy of a federal indicator reported to the Office of Special Education Programs. Designed administration plans that have resulted in increasing response rates, including developing excel lists for districts to use for mail merge or return with contact information.

Methods: Sampling, survey administration, automated LaTeX reports, web portal, python dashboards, Qualtrics API.

Evaluation of the Relationship of Physical Fitness and Student Academic Outcomes

Analyst for a statewide analysis of student physical fitness and academic achievement. Cleaned, checked, merged, and appended three years of student administrative and physical fitness records (approximately 13 million student-year observations). Generated district and school level descriptive statistics and correlation tables, and estimated multi-level models with lagged dependent variables and difference models to assess the relationship between fitness and student outcomes.

Methods: Multi-level lagged dependent variable and difference models, Spearman correlation tables with custom code to increase speed for a large number of observations, descriptive statistics.

Non-Project Based Data Collection and Management

Collect and process data beyond project-based data management. Wrote a program that lists, downloads, and cleans surveys from the Qualtrics platform (presented at the 2020 Stata Conference). Maintain and collect publically available education and demographic data. Download and clean Texas Academic Performance Reports (TAPR) from current to 1999. Download and prepare US Census data by school district and zip code, and smaller web-scraping projects. Data management for consulting group data and PDF billing details for clients.

Methods: cURL, HTML, LaTeX, JavaScript, using meta-data to automate code writing, regular expressions.