# PROJECT PLAN: IMPACT OF PUBLIC LIBRARIES ON STUDENT LEARNING OUTCOMES

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#### **ABSTRACT**

This project seeks to understand the relationship between public libraries and student learning outcomes in the communities where public libraries are active.

#### 1 Introduction

Public libraries are an important community anchor institutions. Funding for libraries has fluctuated due to the varying sources where libraries receive support (local, state, national, philanthropy). Additionally, cities across Kansas have libraries of significantly different sizes and capacities. Given these differences, this project seeks to understand the role public libraries play in student learning.

#### 2 Baseline or Initial Analysis

The initial analysis requires summary statistics of the Public Library Survey and summary statistics of the Kansas student learning outcomes. The Public Library Survey is a national survey, and so summary statistics should be given for the full dataset and a Kansas subsample.

The various datasets will also need to be linked. The analyst should explore the best level at which analysis can be conducted. Options include a district-level merge, county-level merge, and metropolitan area-level merge.

## 3 FINAL ANALYSIS

The final analysis in this project is a set of regression estimates that relate public library characteristics with student learning outcomes.

The focus of this project is in the Kansas context, and therefore regression estimates should be given using Kansas data. If national data is incorporated into the student learning outcomes, regression estimates using the larger national sample may also be given.

These regression estimates should be put into tables following the standard format in Economics. Include robustness checks, heterogeneity tests, and visualizations that investigate the validity of these estimates.

## 4 FINAL GOALS & EVALUATION

The final goal of this project is a technical report detailing the data work completed, statistical analysis undertaken, and results and implications of the findings.

#### 5 RELATED WORK

Please cite research papers, reports, blog posts, projects, and other works you have consulted or plan to consult later. Please provide a sentence or two description that conveys the sources relevance to your project. You should have at least 5 sources.

## 6 Data & Technical Requirements

The data used for this project comes from two sources. The National Library Association conducts a survey of all public libraries in the United States and this survey provides the first source of data. The Kansas Department of Education makes available various summary statistics about student learning outcomes on their website. This data should be downloaded and should include information about Kansas school district funding, district level ACT outcomes, and other measures of learning outcomes that may be available.

Other states provide information about their school districts' performance, and this data may be incorporated into the project to provide comparisons and baselines for the analysis done in Kansas.

The data cleaning and statistical work should be done in R or Stata.