

Assignment 4: Proposal

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Research Proposal: The impact of the COVID-19 Pandemic on College Enrollment Rates in the United States (2019 to 2022)

Research Question: *How has the COVID-19 pandemic affected college enrollment rates in the United States from 2019 to 2022*

Dataset: The research focuses on utilizing the IPEDS (Integrated Postsecondary Education Data System) as the dataset of interest, in this study. It encompasses a range of information about higher education institutions such as student's enrollment statistics and demographics along with institutional attributes. Covering the period from 2019 to 2022 enables an examination of enrollment patterns pre-pandemic and during the pandemic era.

Furthermore, for a comprehensive study enhancement purposes will involve integrating statistics sourced from Our World in Data focusing on COVID-19 related metrics such as COVID-19 cases, deaths, and stringency of government policies to examine their problem impact on enrollment figures.

Target Variables:

Undergraduate Enrollment (EFTEUG): The full-time equivalent enrollment for undergraduate students.

Graduate Enrollment (EFTEGP): The full-time equivalent enrollment for graduate students.

Descriptive Statistics for Target Variable (2019 Baseline):

Undergraduate Enrollment (EFTEGD): In 2019 the average undergraduate enrollment across institution was 5,163 full-time equivalent students.

Graduate Enrollment (EFTEGD): In 2019 the average graduate enrollment was 780 full-time equivalent students.

The enrollment numbers from 2019 will be used as a reference point to compare with the enrollment figures in the following years from 2020 to 2022.

Methodology:

Data Aggregation: Enrollment information spanning from 2019 to 2022 will be analyzed from the IPEDS dataset, then it will be combined with the COVID-19 statistics sourced from Our World in Data to assess how pandemic conditions affected college enrollment

Exploratory Data Analysis (EDA): Visualizations of the enrollment trends across the years will be generated. Key COVID-19 metrics such as total cases and the stringency index will be overlaid to observe the correlations.

Regression Analysis: Will create a regression model to measure how COVID related factors such as cases and deaths influence enrollment changes in response to stringency of government policies. The study aims to pinpoint pandemic related factors that influenced enrollment shifts.