# Lumiere Research Scholar Program

Paper Outline – Premium Research & Publication

Akshita Anant Badkundri – Summer 2021

**Research question**

How do covid-related policies affect infection/death rates of minority groups? Specifically, could it be that covid related policies impact minority groups more than whites?

* Define covid related policies: Mask Mandates, Opening/Closing of restaurants & bars
* Define Minority Groups: Black, White, Asian

**Introduction**

In this section, I will be describing what I mean by different minority groups and whites and the policies I will be referring to. It will explain why the research question is important along with the motivation for it. It will include previous opinions on the question as well as my take on it. It will also include a brief overview of the methods. *Next step:* I need to analyze the relevant data for a possible solution.

**Literature Review**

In this section, I engage with the academic literature on 3 subjects (i)Different kinds of policies that have been enforced till now; (ii)The Efficacy of Covid-Related policies so far, using information from government reports to track changes in infection/death rates across time; (iii) Response to the policies by different groups. *Next step:* Read remaining papers.

**Data**

In order to collect my data, I will search covid databases from the last two years. I will search for time series data bases. The data sets will be of the following:

A) Dates when covid-related policy changes made (When were restaurants allowed to be open? /When were restaurants closed? /When was the mask mandate enforced? /When was the mask mandate relaxed? /Opening & Closing of Bars)

B) Daily Infection/Death Rates/Vaccine administration for different groups (Whites, Asians, African Americans, Latinos, etc.)

*Next steps:* we have most of the data collected. Next is to organize the data and prepare for visualization, and then analysis.

**Methods**

The goal is to assess changes(rise/dip) in the infection/death rates of each group as a consequence of covid related policy changes. To do this, I will be using time series, regression analysis. Specifically, we will conduct a lagged regression of covid cases on policy changes. The goal is to model the relationship between covid related policy changes and death rates of different minority groups. *Next step:* pre-process the data to prepare it for a lagged regression analysis.

**Results**

According to my hypothesis, I expect to find that covid-related policies have impacted different groups differently. I also assume that the policies have been effective in reducing the infection/death rates overall, though I am interested to find out how & why policies are affecting different groups(whites, African Americans, Latinos, Hispanics) differently. This section will just present the results in the form of regression/statistics tables and visual graphs. *Next steps:* I will learn how to clean data and practice Python.

**Analysis**

I will be using time series regression analysis as mentioned in Methods.

**Limitations**

The limitations of my paper will be regarding the data. As my paper is a quantitative data analysis paper, the statistics I’ll be collecting are extremely important. The question I’m studying is concentrated to one demographic where data availability for infection/death rates of different races is high – data won’t be spread across USA; thus the demographic might not be entirely representative. Along with that, why some policies affect different races differently can have unaccounted different reasons that I might not be able to factor in. *Next Steps*: Think about other limitations as I go ahead with the writing process and try to find solutions for the same.

**Discussion**

This section will discuss the implications of my results, i.e. What they were and what they mean to me, if it supports or disproves my hypothesis. It will also discuss how my findings compare to previous research and if the findings support/disprove other hypothesis.

**Data availability**

The data will be obtained from both federal and state and county databases. I will use them to help me answer my question. My mentor already has access to the required data.

**Technical skills required**

As I’ll be doing a quantitative data analysis, I will need to learn how to clean data and how to perform a regression analysis on it. I will also need to learn Python to help my analyze the data.