Effectiveness of Government Policies in Response to the COVID-19 Outbreak

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Introduction

Objectives

- We measured the **effectiveness of Provincial/State government policy in United States and Canada** in response to the COVID-19 Outbreak by assessing the policy's effectiveness in **disease control** and its quatitative impact on the **labour market**.

- What are our next steps if a policy is considered "**effective**" or "**ineffective**"?
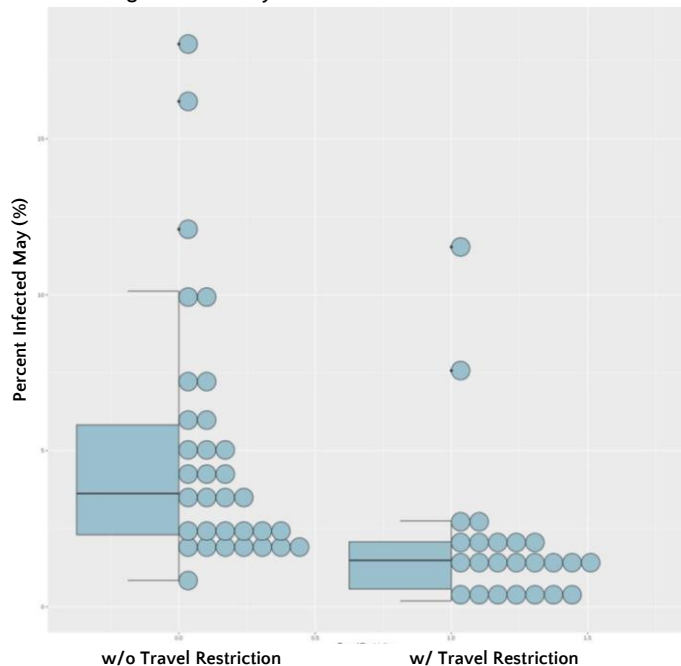
Data Summary

- ◎ Confirmed cases and deaths

- ◎ Labour statistics

- ◎ YoY/MoM growth of unemployment

- ◎ Policy carried out by State governments in the US

- ◎ Policy carried out by Provincial governments in Canada

Note: *All data used in the analysis are from publicly available and openly licensed sources. More explanations and comments regarding the datasets and models are available in the submitted code.*
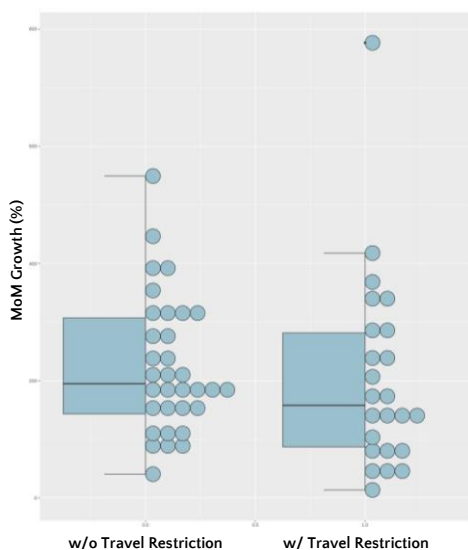
Idea 1: Travel Restriction leads to Lower Infection Rate in a State

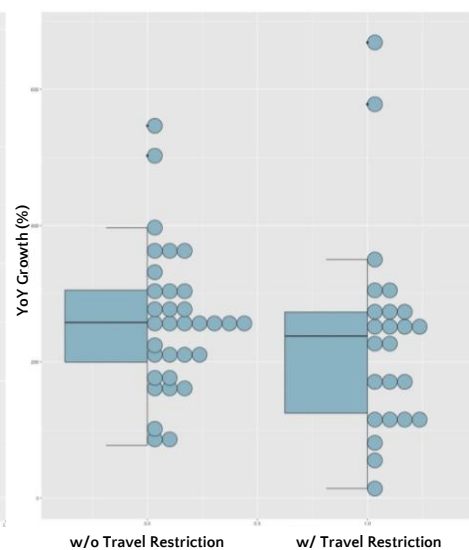**Percentage infected May vs. Travel Restriction**

Idea 2: Travel Rristriction Leads to a smaller increase in Unemployment

MoM Growth vs. Travel Restriction

YoY Growth vs. Travel Restriction

We chose travel restriction as the epitome of our analysis considering its high effectiveness. The first graph shows the **confirmed cases growth** with (right) or without (left) the **travel restriction policy**, the distribution of dot plots reflects the different growth rate of different provinces. The second graph explains the YoY and MoM growth of the unemployment with the same strategy for more applicable comparative result.

Conclusions

Effective Policies with positive impact on the labour market:
- ◎ Closed daycares
- ◎ Travel Restriction
- ◎ Large gathering ban
- ◎ Ordered freezing utilities shut offs
- ◎ Froze evictions
- ◎ Closed gyms

📌 **Our Suggestions**

Based on our models,
- ◎ The government should prioritize travel restriction and large gathering ban to minimize the societal impact.
- ◎ We have also observed that closed daycares, frozen evictions, closed gyms and ordered freezing utilities shut offs are effective for disease control and lower unemployment rate.