The Impact of a Global Pandemic on the Seven Major Currencies

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Hypothesis

We believe the foreign exchange market to reflect volatility that appears synchronous with the unpredictability of the global pandemic.

Project Statement

We have studied patterns in the foreign exchange market during the initial year of the COVID19 pandemic. We have noticed correlations between certain currency pairs within our subset of currency exchange data. We have also focused on periods of peak COVID19 case numbers and death counts to examine any trends reflected in the global currency exchange market in congruence with the global pandemic.

Research Questions 📝

How much does the global market economy mirror the societal and economic upheaval caused by a global pandemic?

What are the seven major currency pairs?

How did the seven major currencies move over the course of the initial year of the pandemic?

Did countries hit hardest by COVID19 experience major fluctuations in currency market value?

Do we notice any market trends during peaks in COVID19 case counts and death counts?

What impact has COVID19 had on the foreign exchange market in terms of the currencies we studied?

Which currency pairs have increased in value during the covid-19 pandemic?
Which currency pairs have decreased in value during the covid-19 pandemic?

Our Data Research Journey: From the Real Estate Market to the Foreign Exchange Market, Both Under Pandemic Circumstances

-Researched fluctuations in the real estate market through the Zillow API

-Shifted our focus to the impact of the pandemic on real estate in Philadelphia

-Traced the racialized consequences of COVID19 in the USA

-Reset our goal to study the changes in the foreign exchange market during this past year's global pandemic

The Data Exploration 🔍

- Zillow API
- New York Times COVID19 Data
- Worldometer COVID19 Live Statistics
- The COVID Tracking Project
- MetaTrader 4
- Github Repo involving FIPS codes

Question for the class:

According to current reporting on COVID19, what do you think is the estimated death count for the USA and its territories?
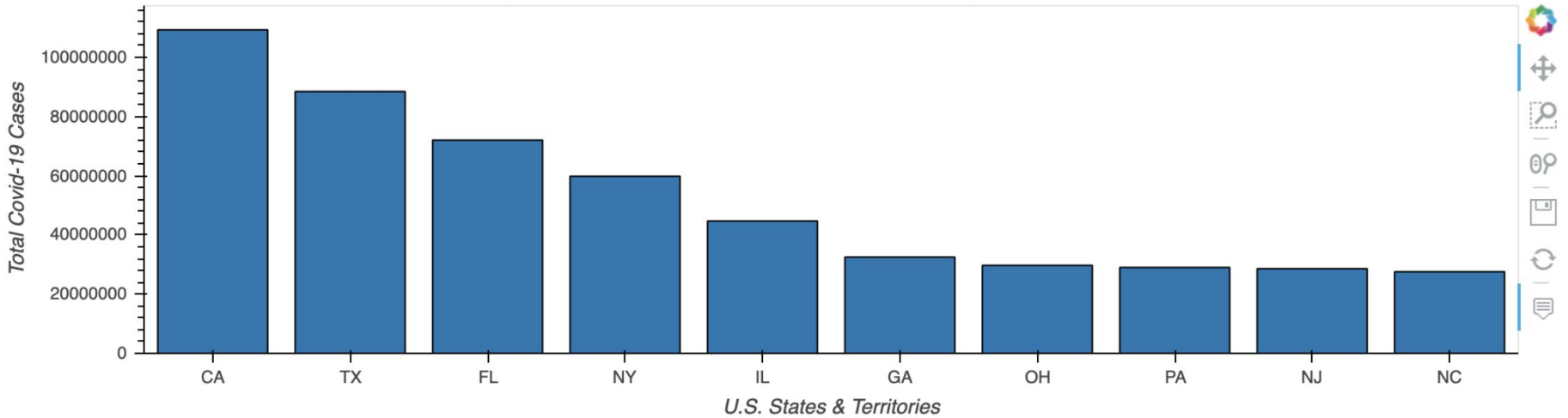
Answer:

Approximately
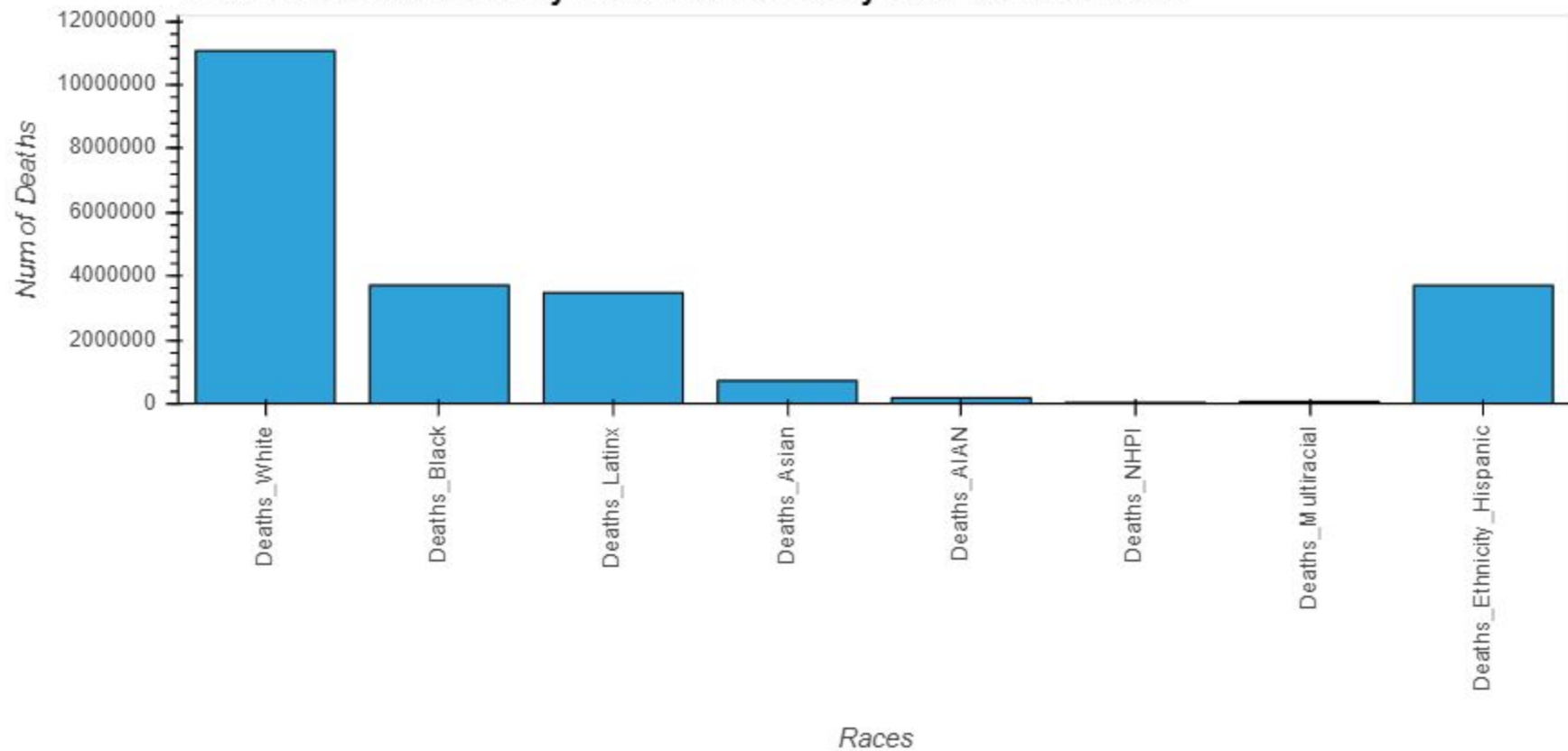
573,819

occurrences of death due to COVID19

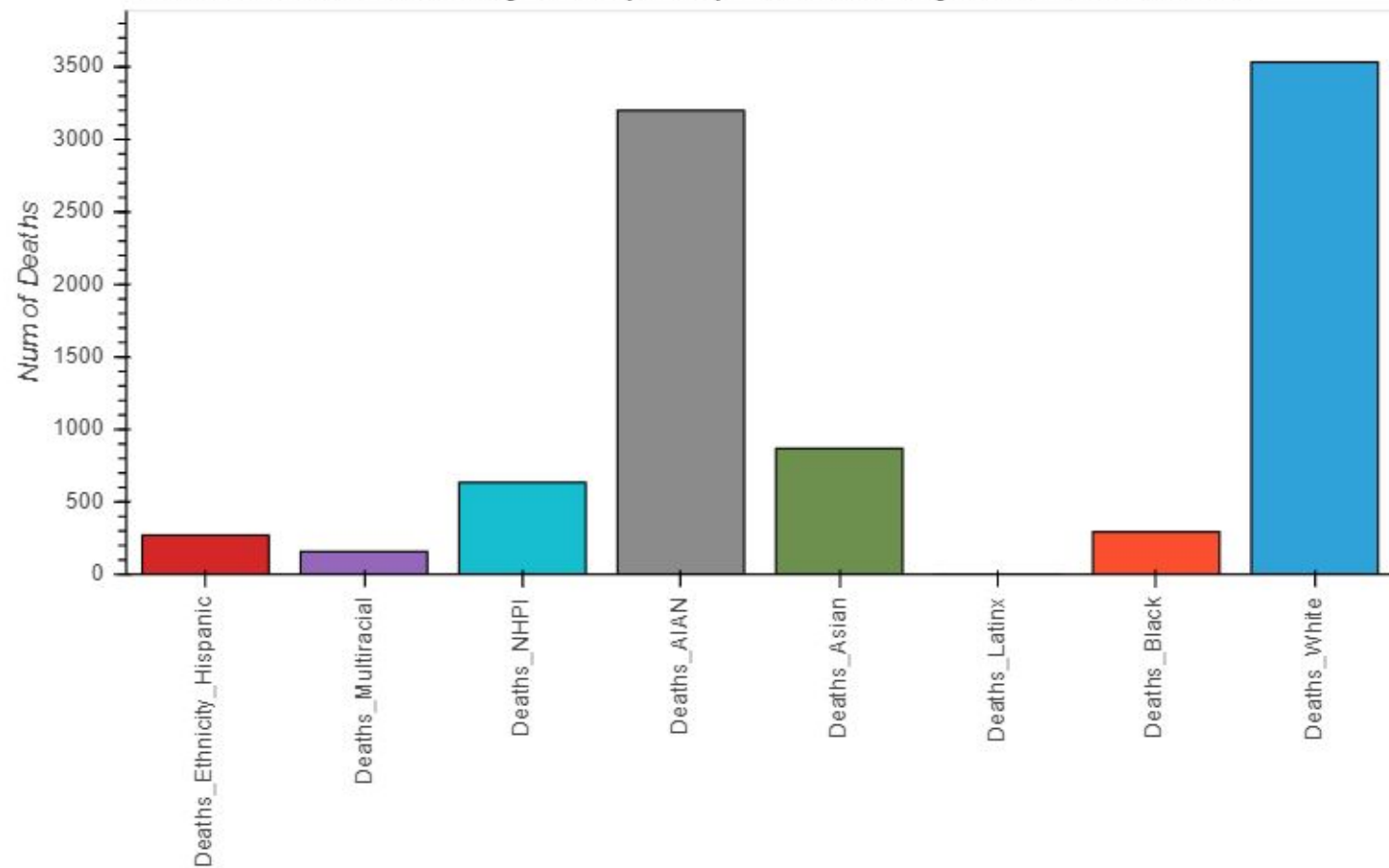# Data Inconsistencies in Parsing COVID19 Data

Top 10 Total Covid-19 Cases By U.S. States & Territories From January 2020 to March 2021
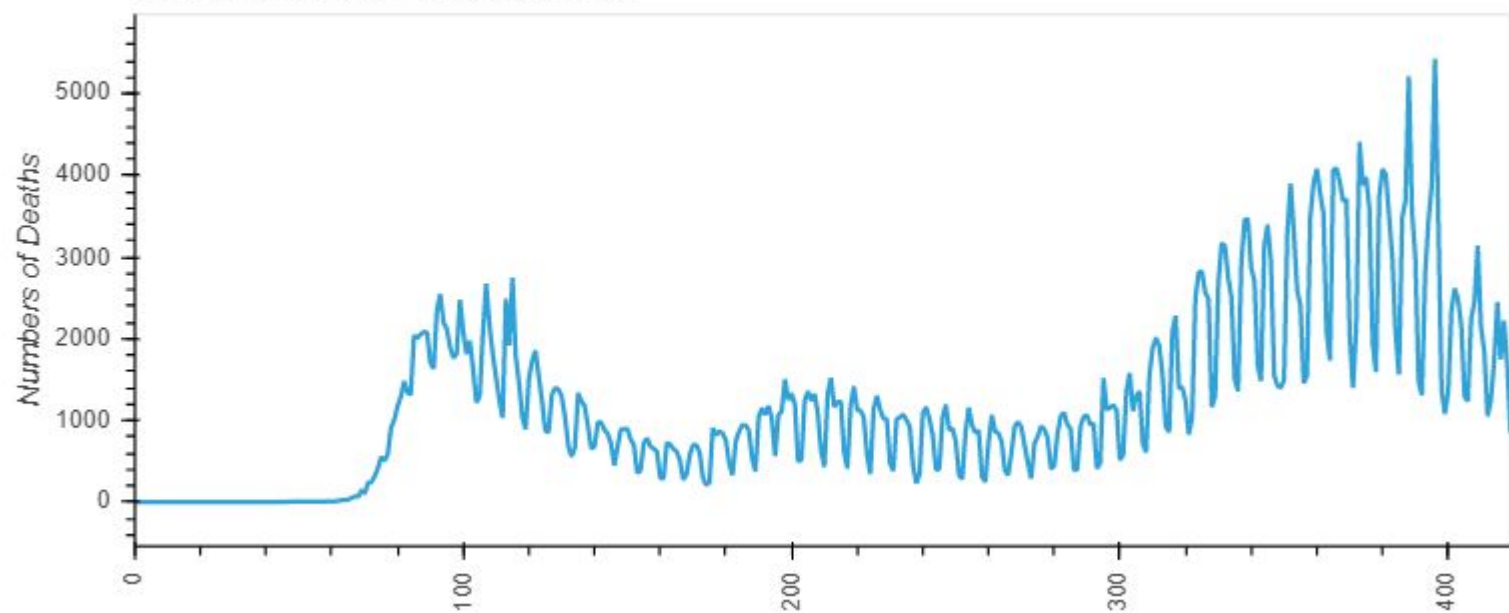
Total Covid-19 Deaths By Race From January 2020 to March 2021

Num of Deaths

12000000

10000000

8000000

6000000

4000000

2000000

0

Deaths_White

Deaths_Black

Deaths_Latinx

Deaths_Asian

Deaths_AIAN

Deaths_NHPI

Deaths_Multiracial

Deaths_Ethnicity_Hispanic

Races

Total Covid-19 Deaths By Race (State) From January 2020 to March 2021

Num of Deaths

Deaths_Ethnicity_Hispanic

Deaths_Multiracial

Deaths_NHPI

Deaths_AIAN

Deaths_Asian

Deaths_Latinx

Deaths_Black

Deaths_White

9027

Races

Covid19 Death Increase 2020

Research Insights

- Complexity of Zillow API navigation
- Confluence of CDC COVID19 data with Census Data in regards to racial terms
- Inconsistencies in COVID19 reporting within USA territories
- Total number of deaths due to COVID19 nationally, versus how we parsed COVID19 data
- Correlated <c_pairs>
- Visible market changes in tandem with visible pandemic changes, at scale

(The Tech) Data Cleanup 🧹

- Pulled in CSV and JSON datasets

- Dropped unnecessary data from the datasets

- Plotted relevant data to visually forage for our propose questions.

More in JupyterLab

EURUSD Closing Prices (2020)

QUESTIONS?

Works Cited (in brief)

https://www.worldometers.info/coronavirus/

https://covidtracking.com/race

https://forex-python.readthedocs.io/en/latest/installation.html#

https://github.com/MicroPyramid/forex-python

https://hvplot.holoviz.org/