

Indigent Burials in the United States

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INTRODUCTION

Definition

An indigent burial is defined as any disposition of a decedent by the local government or affiliated charity. Indigent burials generally occur when next of kin are unavailable or unable or unwilling to pay for burial or cremation.

Background

Currently the system for funding and procedures around indigent burial is highly localized and is often decided at the county level. Currently, no centralized database of indigent burials exists for research purposes.

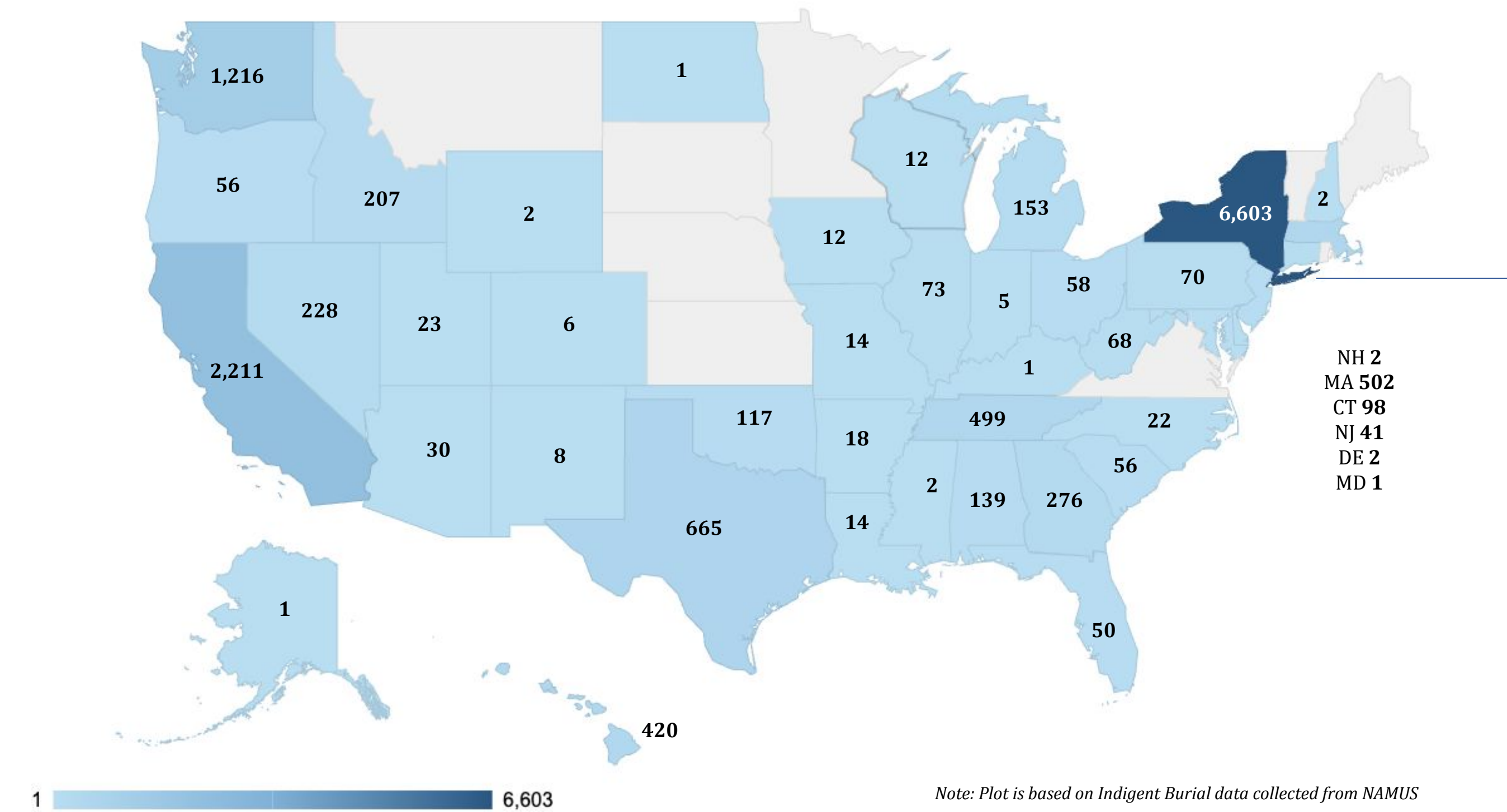
Goals

- Build a database of indigent burials that can be used by both researchers and the general public and conduct preliminary analyses.
- Brings attention to a situation that many people are unaware.
- To better understand the phenomena of social isolation and extreme poverty.

Innovation

This project will provide a publicly available database that will allow researchers to examine indigent burial in terms of person, place, and time. The proposed work has the potential to provide a new infrastructure that transforms quantitative and qualitative research on the understudied topic of indigent burial across disciplines.

DATASET

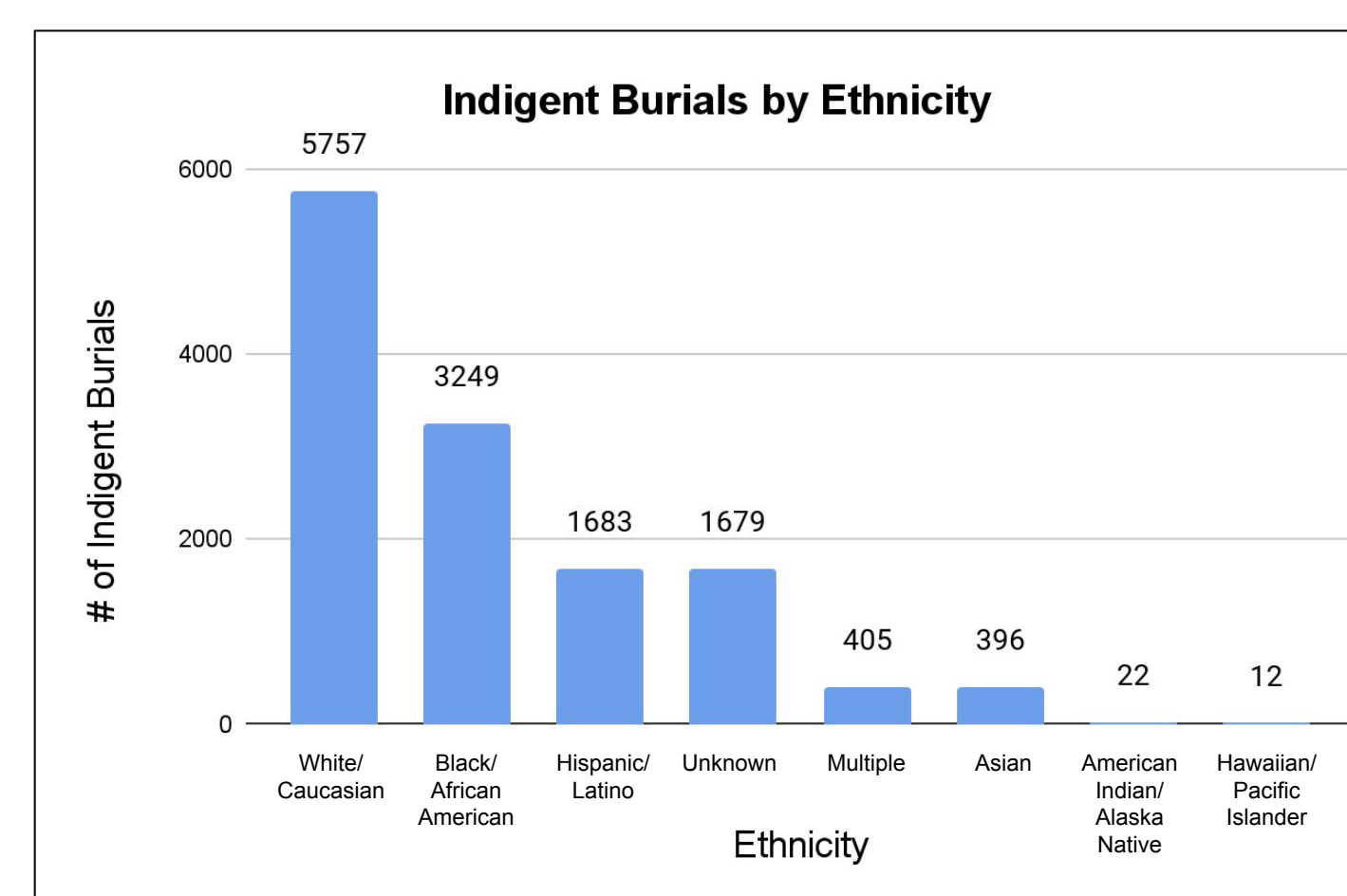
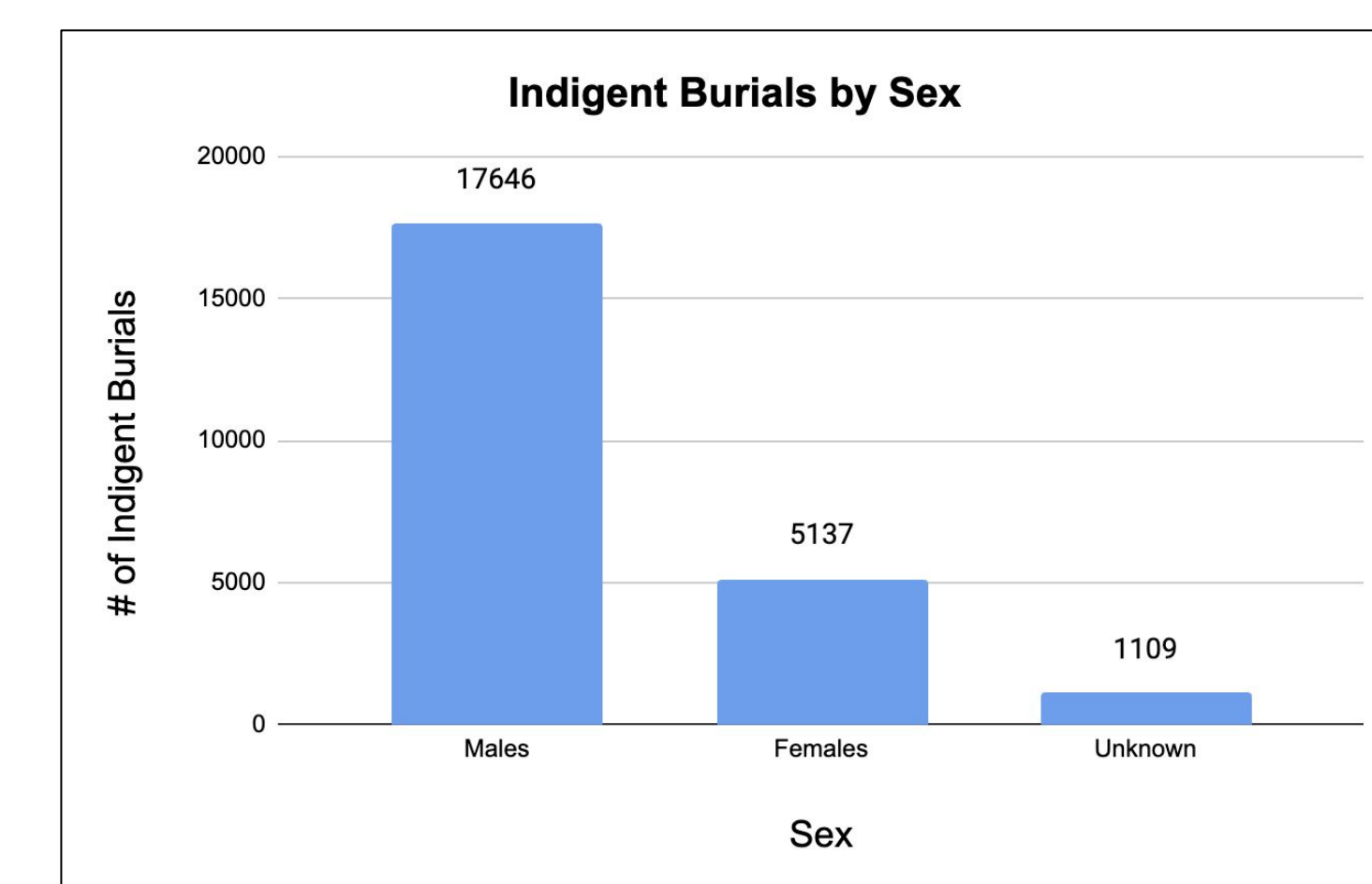


Gathering/Sourcing

The data was contained in an extensive database of deaths that had been compiled on a diverse range of state and local government websites in the United States over the past several decades.

To date, we have compiled a dataset of 121,840 records of indigent burials. In particular, we used a Python library called BeautifulSoup and selenium for scraping the data from the various databases we were accessing online.

We also used Pandas to aggregate our data and create summary statistics. Our plan was to analyze the information contained in the database and develop a set of statistical measures that could be used to determine how frequently certain groups of people were buried in pauper's graves or unclaimed bodies in morgues.



Cleaning

Our initial goal was to build a tool that could provide an overview of this vast amount of data and identify the most frequent causes of death by ethnicity, gender, age, and other factors.

To address this we designed and implemented an interactive Python program using Pandas that allowed us to search for specific groups of people based on a number of different criteria and display a list of those individuals along with their accompanying statistics.

The program used advanced filtering techniques to search the massive database and allowed us to select different populations for analysis and obtain a detailed list of their corresponding statistics.

Top five jurisdictions represented in dataset

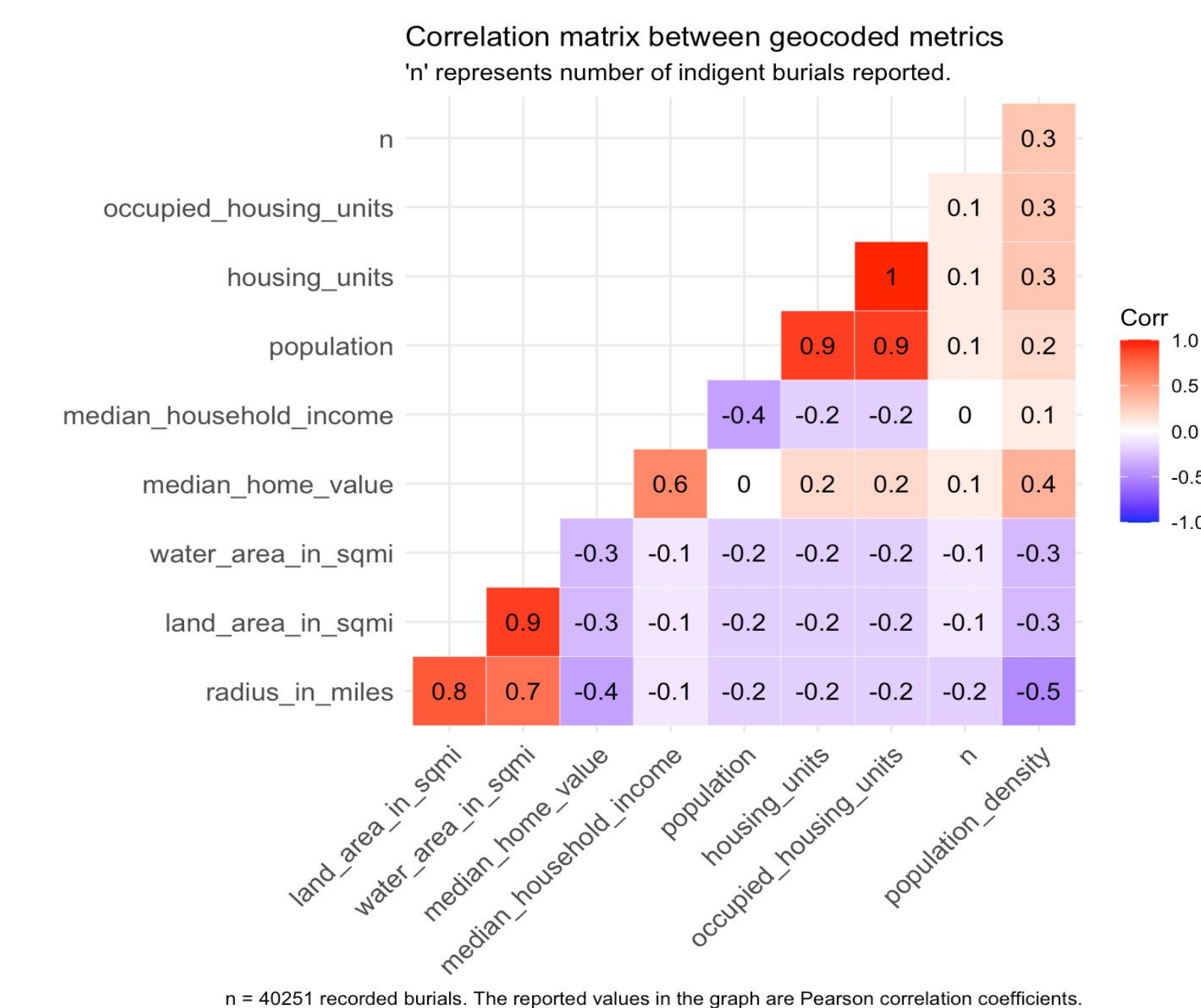
Hart Island, NYC(75.1K) | Namus, National(14.1K) | Fresno, CA(11.7K) | LA, California(8.74K) | Oregon(6.55K).

CASE STUDY

Hart Island

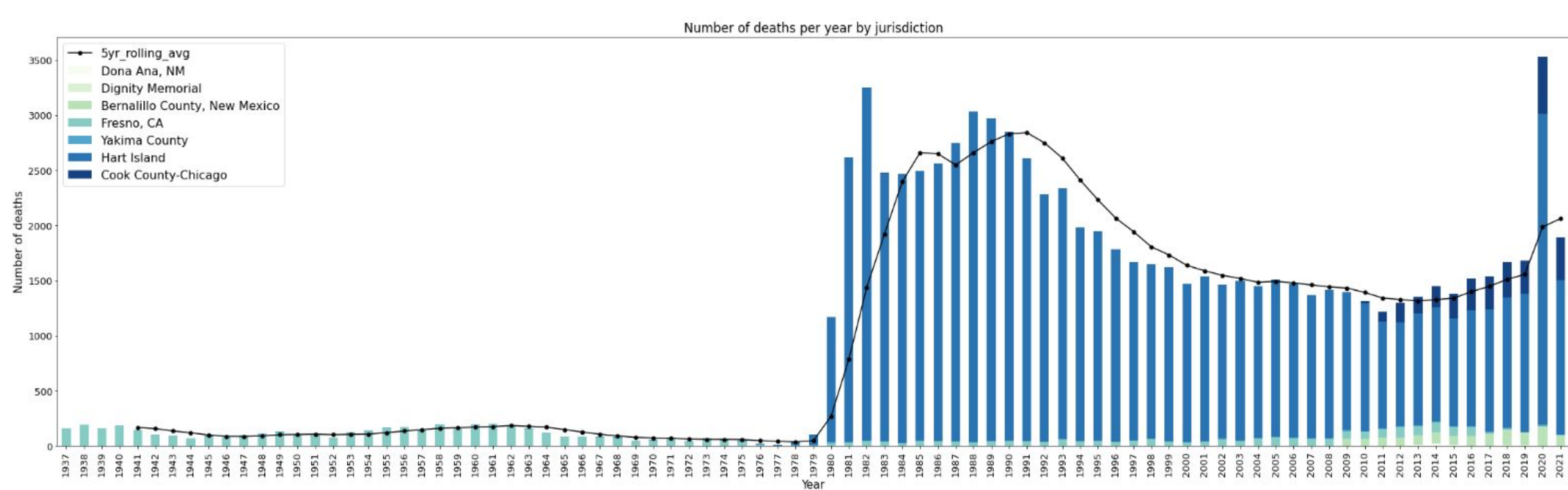
Access to location data of burial records at Hart Island allowed us to geocode burials records in the dataset.

We attempted to correlate high burial frequency (n) to geographic factors in the surrounding NYC areas (right), and found a statistically significant (p < 0.05) influence of population density on a high proportion of reported indigent burials.



Factors such as increased surface area of natural bodies of water and land tended to serve as protective factors which decreased the likelihood of high rates of indigent burials. Interestingly, median household income did not appear to affect presence or absence of indigent burials in NYC.

TRENDS



Analysis

From 1979 to 1982, the number of deaths of indigents across all jurisdictions rapidly rose to about 3,250. One possible reason for the increase is that data collection and storage methods for the indigent burial system were improved. Thus, the amount of public burial data available increased.

Another factor that likely contributed is the 1981 HIV/AIDS epidemic, which lasted until the early 1990s.

After 1988, there was a fluctuating decline. Due to the rapid economic development in the U.S., the number of impoverished people decreased, leading to a decline in indigent burials. In 2015, deaths rose rapidly again, reaching a local peak of over 3,500 in 2020. Deaths surge in 2020 due to the COVID-19 pandemic.

Note: only jurisdictions with recorded death dates are represented in the plot.

CONCLUSION

Drastic uptick in the number of deaths reported since the 1980s

Based on available data, cities have more indigent burials than rural areas



Overrepresented groups:

- White/Caucasian males with Military background
- Elderly people (≥60 years old)

ACKNOWLEDGEMENTS

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