

Wikipedia defines piracy as “an act of robbery or criminal violence by ship or boat-borne attackers upon another ship or a coastal area, typically with the goal of stealing cargo and other valuable goods.” When we think of maritime piracy it can often conjure up thoughts of wooden ships and eye patches, but it is still a problem that plagues us today.

Identify causal societal and developmental factors related to piracy. Using these factors we aim to create an effective model to prove that these factors are strong determinants of high piracy activity within the countries in our scope.

It is important to understand the societal and economic factors of piracy to redress causes of piracy and create a safer and more equitable world

In order to better understand the piracy we sourced data on piracy and related incidents from the US Office of Naval Intelligence. We combined the incident data with data from the UN Sustainable Development Goals program(SDG). By analyzing our combined data we hoped to show the relative effects of geographic, economic and developmental features in precipitating pirate attacks.

The largest challenge in our process was assembling data. The incident data had GPS coordinates but no other useful location indicators. We needed to create a country column based on coordinate values. We were able to accomplish this using the Nominatim module from a python package called geopy. Attack observations were assigned a country value or, if too far from the coastline, were labeled as ‘International waters’.

Few countries had SDG information records every single year. Data from a previous year was used when possible. If no country data was available for the 20 length of SDG, a value at the bottom of the range of worldwide data.

The incident and country data was stitched together. With the resulting dataset, we analyzed geographic and societal factors correlation to pirate incidents. We also created multiple models to prove the causality of our selected factors.

Overall we determined that societal and geographical features both were influential in influencing piracy. Poverty rates and the willingness of the government to sign oceanic treaties were the most important societal factors although educational and scientific factors were also important to a lesser degree. To prove this, we made multiple, high-scoring models using the societal features alone.

Interventions targeting poverty are likely to be effective. However, due to the low cost and effectiveness, convincing member states to adopt the United Nations Convention on

the Law of the Sea and other oceanic treaties may represent the highest return on effort. A successful, multi-front strategy may include offering economic development support in exchange for ratifying oceanic treaties.