

## Appendix

For our full project, we have used secondary data sources to map and visualize the following natural hazards in student neighborhoods and communities.

- **Flooding.** FEMA's (2009) Flood Hazard layer shows that Puerto Rico is susceptible to flooding across the island during high tides and tsunamis. Puerto Rico is also susceptible to flooding near rivers and on almost all coasts.
- **Landslides.** The landslide susceptibility layer shows delicate areas where rain or the movement of plates can have a high impact, especially in the Central Mountain Range (Hughes & Schulz, 2020).
- **Drought.** The Drought layer shows one of the worst droughts in Puerto Rico. It was obtained from the U.S. Drought Monitor page, which provides downloadable files on the various drought records and their daily sequence (Monitor de Sequía de los Estados Unidos, 2015). The 2015 drought affected most of the Island, except for the west-central region.
- **Earthquakes.** The 2020 earthquake layer shows different impacted sectors or towns in southern Puerto Rico. The data was retrieved from the U.S. Geological Survey data page. We also include a layer identifying landslides provoked by the 2020 earthquake (Allstadt et al., 2020).
- **Tsunamis.** The Tsunami Evacuation layer covers all coasts in Puerto Rico, including Vieques and Culebra (Mercado, 2014). The Seismic Network page of the University of Mayagüez of Puerto Rico also provides data on layers of tsunami evacuation zones on the Island and their location (Red Sísmica de Puerto Rico, 2012). This layer is concentrated on the coasts and, in addition, expands among the principal rivers in Puerto Rico, bringing risks to sectors near the evacuation zones due to the flow of bodies of water.
- **Rainfall.** The Rainfall Intensity layer analyzes some of the climatological characteristics of daily precipitation in Puerto Rico, such as frequency or probability, intensity, concentration, persistence, and rainy and dry periods. It was obtained from Vélez (2021).

In addition to the climatological layers, we also included a layer of Type 1 Crimes by Municipality from the Institute of Statistics of Puerto Rico database (Instituto de Estadísticas de Puerto Rico, 2022).

## Appendix References

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