

Resilience Analysis and Planning Tool



Overview

The Federal Emergency Management Agency (FEMA) and Argonne National Laboratory (Argonne) created the Resilience Analysis and Planning Tool (RAPT) to support state, local, tribal, territorial analysis in identifying focus areas for building resilience, response, and recovery capabilities. RAPT is a geographic information system (GIS) webmap tool with clickable layers of community resilience indicators, infrastructure locations, and hazard data, and widgets to help with analysis, including a population counter. The RAPT is available at: https://bit.ly/ResilienceAnalysisandPlanningTool.

Community Resilience Indicators

FEMA and Argonne conducted analysis of peer-reviewed research and identified 20 commonly used community resilience indicators, 11 with a population focus and 9 with a community focus. The research team then developed a process to combine all 20 indicators into one county-level aggregate resilience indicator.

Population-Focused

Educational Attainment
Unemployment Rate
Disability
English Proficiency
Home Ownership
Mobility
Age
Household Income
Income Inequality
Health Insurance

Single-parent Household

Community-Focused

Hospital Capacity
Medical Professionals
Affiliation with a Religion
Presence of Mobile Homes
Public School Capacity
Population Change
Hotel/Motel Capacity
Rental Property Capacity
Connection to Civic/Social Org.

The RAPT webmap site includes an overview of the Community Resilience Indicator Analysis, a summary of how the researchers connected each indicator to resilience, a correlation analysis of each indicator to the other 19 indicators, and a link to the full report: Update,

Infrastructure Layers

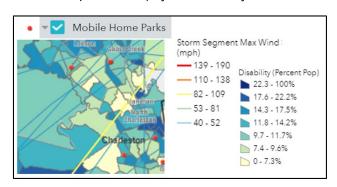
The infrastructure layers in RAPT are drawn from the Homeland Infrastructure Foundation-Level Data (HIFLD) Subcommittee Online Community and include community lifelines datapoints. Infrastructure layers include hospitals, fire stations, mobile home parks, and school locations.

Hazard Layers

RAPT includes GIS layers of historic hazard data for tornados, tropical storms, and wildfire; risk assessments for seismic and flooding events; and real-time watch and warning notifications from the National Weather Service. Jurisdictions can click on multiple hazard layers at a time to see a more comprehensive view of hazard risk.

Using RAPT

RAPT is not a scorecard of resilience but is a tool to help jurisdictions better understand the interplay of factors that may be important for resilience, response, and recovery. Users can select multiple layers to better understand local challenges to resilience, such as population with a disability combined with location of mobile home parks, and historic tropical storm/cyclone activity.



By combining layers, jurisdictions can conduct analysis of their community to develop targeted outreach and resilience strategies. For questions, please email FEMA-TARequest@fema.dhs.gov.

03/23/2020