

Hazus Loss Library

FEMA's Hazus Loss Library is an online collection where planners and emergency managers can search, view, and download authoritative risk information generated using Hazus.

About Hazus

FEMA's [Hazus Program](#) provides standardized tools and data for estimating risk from earthquakes, floods, hurricanes, and tsunamis. Hazus identifies areas prone to natural hazards and estimates the physical, economic, and social impacts of disasters. The Hazus Program, managed by FEMA's Natural Hazards Risk Assessment Program, partners with other federal agencies, research institutions, and regional planning authorities to ensure Hazus resources use the latest scientific and technological approaches and meet the emergency management community's needs.

Hazus produces a variety of actionable risk information:



Physical damage to residential and commercial buildings, schools, critical facilities, and infrastructure



Estimated social impacts including displaced households, shelter requirements, and exposure to floods, earthquakes, hurricanes, and tsunamis



Economic impacts such as business interruptions and reconstruction costs



Cost effectiveness of common mitigation strategies, such as elevating structures in a floodplain

About the Hazus Loss Library

The Hazus Loss Library is an online public collection of natural hazard risk information to support users in all phases of emergency management at the local, state, and federal levels. Users can search, view, and download risk information for communities across the United States. Studies are organized by location, hazard, analysis type, and historical event year so users can quickly find valuable risk information for their emergency management projects.

The web-based platform is a collection of Hazus-generated risk assessments and loss modeling results for historic and probabilistic floods, hurricanes, earthquakes, and tsunamis. Users can search for a historic event, planning scenario, or location and view previously performed analyses as well as downloadable results products and reports such as damage by building type, total economic losses, displaced households, and more.



FEMA

Figure 1. Library Home page. Hazus risk studies are searchable by location, hazard, analysis type, and historical event year. See Figure 2 below for more information on the Event Page contents.

Figure 2. Event Page. Once you select a study from the Library, risk information is available in a variety of formats on the Event Page by expanding the Show Downloads section.

Benefits of the Hazus Loss Library

The Hazus Loss Library is the first open and authoritative collection of Hazus risk assessment studies to be shared publicly. The library is designed to expand the accessibility of authoritative Hazus-generated risk information, which can be used to support activities in all phases of emergency management.

Hazus Loss Library Use Cases



Mitigation Planning: provide analysis for the risk assessment portion of a plan and build a foundation for a community's long-term strategy through historic and deterministic modeling.



Recovery: discover hindcast analyses for past disasters. Learn about the areas most impacted in local communities and where to invest for the future.



Exercise/Scenario Planning: use results to develop realistic scenarios from single and/or multi-hazard events. Develop exercises, plan for logistics and operations, and enhance preparedness.



Research and Risk Awareness: use modeling results to validate other studies/models or compare them to real-world events.

The Hazus Loss Library includes information on how each risk assessment study was created. By understanding each study's date and input data, users can communicate the limitations of study results and identify future study improvements.

The Hazus Loss Library is free and easy to use for both technical and non-technical users and removes barriers associated with time, cost, and technical expertise. It allows users to find natural hazard loss modeling information without performing the modeling themselves.

To Get Started

- **Visit the Hazus Loss Library:** Go to <https://hazards.fema.gov/hll> to view the library.
- **Find your community:** Review available risk information for your community by typing your location in the Search bar or using the search filters.
- **Filter by type:** Select "Historic" in the "Analysis Type" box to find impacts from past disasters. Select "Deterministic" to find impacts from scenario events. Select "Probabilistic" to find impacts from hazards defined according to their probability of occurrence. You can also filter by "Hazard", "Historical Event Year", and "Location".
- **Download data:** Click on a study tile for more details. Select "Show Downloads" to view available risk information for your study like CSVs, Shapefiles, Reports, and GeoJSON files of Hazus Results. You can also download Hazus Package Regions (HPRs) and access links to Hazard data, such as USGS Flood Gage data and USGS Shakemap data, on the study event page.

For more information, visit <https://hazards.fema.gov/hll> or contact the Hazus Team at FEMA-Hazus@fema.dhs.gov

Hazus Resources

The Hazus Program offers technical guidance, training, and information about ongoing and recent projects to help stakeholders complete successful risk assessments. Please review the resources listed below for assistance using Hazus and reach out to the Hazus Team with questions.



[Self-Guided Course Materials](#)



[YouTube Videos](#)



[Sign Up for Risk Assessment Guidance](#)



[GitHub Resources](#)



[User & Technical Manuals](#)



[Contact the Hazus Team](#)