



Hazus Export Tool

Data Dictionary

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Purpose

The purpose of this data dictionary is to provide comprehensive documentation and guidance for the [FEMA Hazus Export Tool](#). Developed by FEMA's Natural Hazard Risk Assessment Program (NHRAP), the Hazus Export Tool plays a crucial role in enhancing disaster preparedness, response, and recovery efforts by allowing users to quickly access critical data related to natural hazards and their potential impact on communities from a Hazus analysis.

This data dictionary serves as an essential resource for understanding the structure, content, and utilization of the data exported through the Hazus Export Tool. It is intended to empower Hazus users, emergency management professionals, researchers, and stakeholders with the knowledge and information necessary to effectively leverage the tool's capabilities. Whether you are a seasoned Hazus user or a newcomer seeking to harness its potential, this document will serve as your guide to interpreting, utilizing, and making informed decisions based on the data obtained from the Hazus Export Tool.

1.1. Introduction

Natural disasters, such as earthquakes, floods, hurricanes, and tsunamis, pose significant threats to communities, infrastructure, and public safety. In response to these challenges, FEMA's NHRAP developed [Hazus](#), a powerful software suite designed to assess the potential impacts of various hazards and assist in disaster mitigation and preparedness. Among its many features, the [FEMA Hazus Export Tool](#) stands out as a critical component, enabling users to quickly extract and analyze vital data related to hazards and their impact.

This data dictionary aims to provide clarity and transparency regarding the data output by the Hazus Export Tool. It offers a detailed explanation of the data fields, their meanings, and formats. Whether you are tasked with disaster risk assessment, emergency response planning, infrastructure resilience analysis, or any other function related to disaster management, understanding the exported data is fundamental to making informed decisions and taking proactive measures to safeguard communities.

Throughout this document, you will find comprehensive descriptions of the data elements and attributes generated by the Hazus Export Tool. We encourage users to explore the contents of this data dictionary thoroughly, as it will serve as a valuable reference to harness the full potential of Hazus-generated data for disaster risk reduction and community resilience. By promoting a deeper understanding of the tool's data, we hope to contribute to more effective disaster management strategies and, ultimately, the safety and well-being of individuals and communities nationwide.

Each output from the Hazus Export Tool is listed and described below in a table. The tables use the following fields to describe the data:

- Field/Value – the name of each field in the layer
- Field Description – a description of the data for that field
- Units – the units associated with each field

Earthquake

The tables below are designed to help users understand and utilize Hazus Export Tool results for earthquake scenarios by describing the tool outputs. It enables users to extract critical data and information related to earthquake scenarios, thereby enhancing their ability to make informed decisions and develop effective mitigation strategies.

To gain deeper insights into the specific fields and data presented in Hazus for earthquake analysis and its Export Tool, you can refer to the [Hazus User & Technical Manual](#) page "Hazus Earthquake Manuals" section.

2.1. Building Damage by Type

Field/Value	Field Description	Units
BldgType	Construction type codes	Code
C1H	Concrete Moment Frame High-Rise	
C1L	Concrete Moment Frame Low-Rise	
C1M	Concrete Moment Frame Mid-Rise	
C2H	Concrete Shear Walls High-Rise	
C2L	Concrete Shear Walls Low-Rise	
C2M	Concrete Shear Walls Mid-Rise	
C3H	Concrete Frame with Unreinforced Masonry Infill Walls High-Rise	
C3L	Concrete Frame with Unreinforced Masonry Infill Walls Low-Rise	
C3M	Concrete Frame with Unreinforced Masonry Infill Walls Mid-Rise	
DFLT	Default (Wood)	
MH	Manufactured Home	
PC1	Precast Concrete Tilt-Up Walls	
PC2H	Precast Concrete Frames with Concrete Shear Walls High-Rise	
PC2L	Precast Concrete Frames with Concrete Shear Walls Low-Rise	
PC2M	Precast Concrete Frames with Concrete Shear Walls Mid-Rise	
RM1L	Reinforced Masonry Bearing Walls with Wood or Metal Deck Diaphragms Low-Rise	
RM1M	Reinforced Masonry Bearing Walls with Wood or Metal Deck Diaphragms Mid-Rise	

Field/Value	Field Description	Units
RM2H	Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms High-Rise	
RM2L	Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms Low-Rise	
RM2M	Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms Mid-Rise	
S1H	Steel Moment Frame High-Rise	
S1L	Steel Moment Frame Low-Rise	
S1M	Steel Moment Frame Mid-Rise	
S2H	Steel Braced Frame High-Rise	
S2L	Steel Braced Frame Low-Rise	
S2M	Steel Braced Frame Mid-Rise	
S3	Steel Light Frame	
S4H	Steel Frame with Cast-in-Place Concrete Shear Walls High-Rise	
S4L	Steel Frame with Cast-in-Place Concrete Shear Walls Low-Rise	
S4M	Steel Frame with Cast-in-Place Concrete Shear Walls Mid-Rise	
S5H	Steel Frame with Unreinforced Masonry Infill Walls High-Rise	
S5L	Steel Frame with Unreinforced Masonry Infill Walls Low-Rise	
S5M	Steel Frame with Unreinforced Masonry Infill Walls Mid-Rise	
URML	Unreinforced Masonry Bearing Walls Low-Rise	
URMM	Unreinforced Masonry Bearing Walls High-Rise	
W1	Wood, Light Frame (= 5,000 sq. ft.)	
W2	Wood, Commercial and Industrial Wood (>5,000 sq. ft.)	
NoDamage*	Number of buildings whose probability of sustaining no damage exceeds 50%	Building count
Affected*	Number of buildings whose probability of sustaining slight damage exceeds 50% and no greater category exceeds 50%	Building count
Minor*	Number of buildings whose probability of sustaining moderate damage exceeds 50% and no greater category exceeds 50%	Building count
Major*	Number of buildings whose probability of sustaining extensive damage exceeds 50% and no greater category exceeds 50%	Building count
Destroyed*	Number of buildings whose probability of sustaining complete damage exceeds 50%	Building count

*See [Hazardus User & Technical Manuals](#) for descriptions of damage states according to construction type

2.2. Building Damage by Occupancy

Field Name	Field Description	Units
BldgType	Construction type codes	Code
AGR1	Agriculture	
COM1	Retail Trade	
COM10	Parking	
COM2	Wholesale Trade	
COM3	Personal and Repair Service	
COM4	Financial/Professional/Technical Services	
COM5	Banks	
COM6	Hospitals	
COM7	Medical Offices/Clinic	
COM8	Entertainment & Recreation	
COM9	Theaters	
EDU1	Schools	
EDU2	Colleges/Universities	
GOV1	General Services	
GOV2	Emergency Response	
IND1	Heavy	
IND2	Light	
IND3	Food/Drug/Chemical	
IND4	Metals/Minerals Processing	
IND5	High Technology	
IND6	Construction	
REL1	Church	
RES1	Single Family Dwelling	
RES2	Manufactured Home	
RES3A	Multi Family Dwelling A	
RES3B	Multi Family Dwelling B	

Field Name	Field Description	Units
RES3C	Multi Family Dwelling C	
RES3D	Multi Family Dwelling D	
RES3E	Multi Family Dwelling E	
RES3F	Multi Family Dwelling F	
RES4	Temporary Lodging	
RES5	Institutional Dormitory	
RES6	Nursing Home	
NoDamage*	Number of buildings whose probability of sustaining no damage exceeds 50%	Building count
Affected*	Number of buildings whose probability of sustaining slight damage exceeds 50% and no greater category exceeds 50%	Building count
Minor*	Number of buildings whose probability of sustaining moderate damage exceeds 50% and no greater category exceeds 50%	Building count
Major*	Number of buildings whose probability of sustaining extensive damage exceeds 50% and no greater category exceeds 50%	Building count
Destroyed*	Number of buildings whose probability of sustaining complete damage exceeds 50%	Building count

*See [Hazardus User & Technical Manuals](#) for descriptions of damage states according to construction type

2.3. County Results & Tract Results

Field Name	Field Description	Units
CountyFips	5-digit census code for county	
EconLoss	Financial impacts from building damage, building content damage, wages and income lost, relocation costs, and lost rent payments	Dollars
Population	Total county population	People
Households	Total county households	Households
DebrisBW	Debris generated from brick and wood structures	Tons
DebrisCS	Debris generated from concrete and steel structures	Tons
DisplHouse***	Number of households displaced from their homes due to building damage	Households
Shelter***	Number of people needing public shelter assistance	People
FatalNite**	Number of deaths sustained during nighttime earthquake	People
FatalDay**	Number of deaths sustained during daytime earthquake	People

Field Name	Field Description	Units
InjNiteL1**	Number of injuries sustained during a nighttime earthquake requiring basic medical care that can be administered by a paraprofessional	People
InjNiteL2**	Number of sustained during a nighttime earthquake injury requiring a greater degree of medical care that are not life-threatening	People
InjNiteL3**	Number of injuries sustained during a nighttime earthquake that pose an immediate life-threatening condition if untreated	People
InjDayL1**	Number of injuries sustained during a daytime earthquake requiring basic medical care that can be administered by a paraprofessional	People
InjDayL2**	Number of sustained during a nighttime daytime injury requiring a greater degree of medical care that are not life-threatening	People
InjDayL3**	Number of injuries sustained during a daytime earthquake that pose an immediate life-threatening condition if untreated	People
NoDamage*	Number of buildings whose probability of sustaining no damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
Affected*	Number of buildings whose probability of sustaining slight damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
Minor*	Number of buildings whose probability of sustaining moderate damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
Major*	Number of buildings whose probability of sustaining extensive damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
Destroyed*	Number of buildings whose probability of sustaining complete damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
RES1NoDam	Number of single-family buildings whose probability of sustaining no damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
RES1Affect	Number of single-family buildings whose probability of sustaining slight damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
RES1Minor	Number of single-family buildings whose probability of sustaining moderate damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
RES1Major	Number of single-family buildings whose probability of sustaining extensive damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count

Field Name	Field Description	Units
RES1Destr	Number of single-family buildings whose probability of sustaining complete damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
RES2NoDam	Number of mobile homes whose probability of sustaining no damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
RES2Affect	Number of mobile homes whose probability of sustaining slight damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
RES2Minor	Number of mobile homes whose probability of sustaining moderate damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
RES2Major	Number of mobile homes whose probability of sustaining extensive damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
RES2Destr	Number of mobile homes whose probability of sustaining complete damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building Count
PGA	Mean strength of ground motions experienced in county	Percent of acceleration due to gravity
State	State abbreviation for county	Text
CountyName	Name of county	Text
AirportFty	Number of airport facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
BusFty	Number of bus facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
CareFty	Number of hospitals whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
FireStation	Number of fire stations whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
EmergencyCtr	Number of emergency centers whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
PoliceStation	Number of police stations whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
School	Number of schools whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
FerryFty	Number of ferry facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
HighwayBridge	Number of highway bridges whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
HighwayTunnel	Number of highway tunnels whose probability of being functional on the first day of the earthquake is less than 50%	Building Count

Field Name	Field Description	Units
PortFty	Number of port facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
RailFty	Number of railway facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
RailwayBridge	Number of railway bridges whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
ElectricPowerFty	Number of electric power facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
CommunicationFty	Number of communication facilities (not towers) whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
OilFty	Number of oil facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
PotableWaterFty	Number of potable water facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
WasteWaterFty	Number of wastewater facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building Count
BuildingExposure	Total Building Exposure for all occupancy types in U.S. Dollars	Dollars
ContentExposure	Total Content Exposure for all occupancy types in U.S. Dollars	Dollars
TotalExposure	Total Building and Content Exposure for all occupancy types in U.S. Dollars	Dollars
LossRatio ¹	The ratio of Econ Loss divided by Building Exposure (where 0.1 = 10%) to indicate loss severity	Ratio
CapitalStockLoss ²	Financial impacts from building damage, building content damage, and building inventory damage	Dollars
IncomeLoss ²	Financial impacts from wages and income lost, relocation costs, and lost rent payments	Dollars

*See [Hanus User & Technical Manuals](#) for descriptions of damage states according to construction type

**See [Manuals](#) for descriptions of injury levels

***Note on older versions of Export/Batch Export, Displaced Population (Shelter Needs) was erroneously referred to as Displaced Households

¹For NRI Update Analysis for Earthquake export tool, Loss Ratio is the ratio of CapitalStockLoss divided by TotalExposure (where 0.1 = 10%) to indicate loss severity

² Item is unique to NRI Update Analysis.

2.4. Damaged Facilities

Field Name	Field Description	Units
Anchor	Are components anchored (1=yes; 0=no)?	Integer, 0 or 1
BreakRatePGD	Number of breaks per km based on permanent ground deformation	Breaks/km
BreakRatePGV	Number of breaks per km based on peak ground velocity	Breaks/km

Field Name	Field Description	Units
LeakRatePGD	Number of leaks per km based on permanent ground deformation	Breaks/km
LeakRatePGV	Number of leaks per km based on peak ground velocity	Breaks/km
DaysRepairBreaks	Number of days to repair pipeline breaks	Days
DaysRepairLeaks	Number of days to repair pipeline leaks	Days
TotalBreakRate	Number of breaks per km	Breaks/km
TotalDysRepairs	Number of days to repair pipeline leaks and breaks	Days
TotalLeakRate	Number of leaks per km	Leaks/km
TotalNumBreaks	Total number of pipeline breaks	Breaks
TotalNumLeaks	Total number of pipeline leaks	Leaks
TotalNumRepairs	Total number of pipeline repairs (leaks and breaks)	Repairs
TotalRepairRate	Total number of repairs per day	Repairs/day
DesignLevel	Strength of the seismic engineering design code to which facility was built	Code
LC	Low code	
MC	Moderate code	
HC	High code	
Distance	Site distance to the earthquake source (0 or NA for ShakeMap)	km
EconLoss	Building damage based on replacement cost	Dollars
Fac_Type	Type of facility	Text
FoundationType	Is there a deep foundation system (1=yes; 0=no)?	Integer, 0 or 1
FunctDay1	Probability that facility is functional on the first day of earthquake	Percent chance
FunctDay3	Probability that facility is functional 3 days after earthquake	Percent chance
FunctDay7	Probability that facility is functional 7 days after earthquake	Percent chance
FunctDay14	Probability that facility is functional 14 days after earthquake	Percent chance
FunctDay30	Probability that facility is functional 30 days after earthquake	Percent chance
FunctDay90	Probability that facility is functional 90 days after earthquake	Percent chance

Field Name	Field Description	Units
LndPGD	Permanent ground deformation due to landslide	inches
LndProb	Probability of landslide at facility	Percent chance
LndSusCat	Landslide susceptibility category (0=none-->10=very high)	Integer, 0-10
LqfProb	Probability of liquefaction at facility	Percent chance
LqfSettlPGD	Permanent ground deformation due to liquefaction settlement	inches
LqfSprPGD	Permanent ground deformation due to liquefaction spreading	inches
LqfSusCat	Landslide susceptibility category (0=none-->5=very high)	Integer, 0-5
PDsComplete*	Probability of building sustaining complete damage	Percent chance
PDsExceedExtensive	Probability of building sustaining damage that equals or exceeds extensive	Percent chance
PDsExceedModerate	Probability of building sustaining damage that equals or exceeds moderate	Percent chance
PDsExceedSlight	Probability of building sustaining damage that equals or exceeds slight	Percent chance
PDsExtensive*	Probability of building sustaining extensive damage	Percent chance
PDsModerate*	Probability of building sustaining moderate damage	Percent chance
PDsNone*	Probability of building sustaining no damage	Percent chance
PDsSlight*	Probability of building sustaining slight damage	Percent chance
PGA	Peak ground acceleration at facility	Percent of acceleration due to gravity
PGV	Peak ground velocity at facility	in/sec
Sa03	Spectral acceleration at 0.3 seconds	Percent of acceleration due to gravity
Sa10	Spectral acceleration at 1.0 seconds	Percent of acceleration due to gravity
SoilType	Type of soil at facility (Type A, B, C, D, E)	Code
SufFltRuptPGD	Permanent ground deformation due to surface fault rupture	inches

Field Name	Field Description	Units
SurfFltRuptProb	Probability of surface fault rupture at facility	Percent chance
WaterDepth	Depth to ground water	Feet
eqBldgType	Specific earthquake building types	Type

*See [Hazus User & Technical Manuals](#) for descriptions of damage states according to construction type

2.5. Hazard

Field Name	Field Description	Units
PGA*	Peak Ground Acceleration	Percent of acceleration due to gravity
Tract	11-Digit Code for Census Tract	

*ParamValue was used in older versions of export

Flood

The tables below are designed to help users understand and utilize Hazus Export Tool results for flood scenarios by describing the tool outputs. It enables users to extract critical data and information related to flood scenarios, thereby enhancing their ability to make informed decisions and develop effective mitigation strategies.

To gain deeper insights into the specific fields and data presented in Hazus for flood analysis and its Export Tool, you can refer to the [Hazus User & Technical Manual](#) page “Hazus Flood Manuals” section.

3.1 Building Damage by Type

Field Name	Field Description	Units
BldgType	General building type	Text
Total	Total direct economic building related losses (building, content, inventory, relocation, income, rental, wage)	Dollars
Building	Financial impacts due to building damage	Dollars
Content	Financial impacts due to content damage	Dollars

3.2 Building Damage by Occupancy

Field Name	Field Description	Units
Occupancy	Building occupancy type	Text
Total	Total direct economic building related losses (building, content, inventory, relocation, income, rental, wage)	Thousands of Dollars
Building	Financial impacts due to building damage	Thousands of Dollars
Contents	Financial impacts due to content damage	Thousands of Dollars

3.3 County Results & Tract Results

Field Name	Field Description	Units
CensusBlock	15-digit census code for census block	
Tract	11-digit census code for tract	
CountyFips	5-digit census code for county	
Population	Total census block population	People
Households	Total households in census block	Households
CountyName	Name of county	Text

Field Name	Field Description	Units
State	State abbreviation for county	Text
TotalLoss	Total direct economic building related losses (building, content, inventory, relocation, income, rental, wage)	Thousands of Dollars
BldgLoss	Financial impacts due to building damage	Thousands of Dollars
ContLoss	Financial impacts due to content damage	Thousands of Dollars
FinishTonsTotal	Debris from building finishes	Tons
StructureTonsTotal	Debris from building structure	Tons
FoundationTonsTotal	Debris from building foundation	Tons
DebrisTotal	Total building debris	Tons
DisplPop	People displaced from their homes due to building damage	People
Shelter	Number of people needing public shelter assistance	People
CareFty	Number of hospitals whose probability of being functional on the first day of the earthquake is less than 50%	Building count
FireStation	Number of fire stations whose probability of being functional on the first day of the earthquake is less than 50%	Building count
PoliceStation	Number of police stations whose probability of being functional on the first day of the earthquake is less than 50%	Building count
School	Number of schools whose probability of being functional on the first day of the earthquake is less than 50%	Building count
HighwayBridge	Number of highways bridges whose probability of being functional on the first day of the earthquake is less than 50%	Building count
NaturalGasFty	Number of natural gas facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
OilFty	Number of oil facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
WasteWaterFty	Number of wastewater facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
HighwayTunnel	Number of highways tunnels whose probability of being functional on the first day of the earthquake is less than 50%	Building count
RailwayBridge	Number of railways bridges whose probability of being functional on the first day of the earthquake is less than 50%	Building count

Field Name	Field Description	Units
ElectricPowerFty	Number of electric power facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
PotableWaterFty	Number of potable water facilities whose probability of being functional on the first day of the earthquake is less than 50%	Building count
LightRailBridge	Number of light rail bridges whose probability of being functional on the first day of the earthquake is less than 50%	Building count
PotableWaterPI	Number of potable waters pipelines whose probability of being functional on the first day of the earthquake is less than 50%	Pipeline count
BuildingExposure	Total Building Exposure for all occupancy types in U.S. Dollars	Dollars
ContentExposure	Total Content Exposure for all occupancy types in U.S. Dollars	Dollars
TotalExposure	Total Building and Content Exposure for all occupancy types in U.S. Dollars	Dollars
LossRatio	The ratio of EconLoss divided by BuildingExposure (where 0.1 = 10%) to indicate loss severity	Ratio
CensusBlock	15-digit census code for census block	
Tract	11-digit census code for tract	
CountyFips	5-digit census code for county	
Population	Total census block population	People

*note that shapefile field names may be truncated after 10 character

3.4 Damaged Facilities

Field Name	Field Description	Units
AnalysisOptId	What if analysis options (yes=1, no=0)	
BldgDmgPct	Percent damage to building	Percent
BldgLoss	Financial impacts due to building damage at facility	Thousands of Dollars
ContDmgPct	Percent damage to contents	Percent
ContLoss	Financial impacts due to content damage at facility	Thousands of Dollars
ControlHazard	Hazard Type (C=coastal, R=riverine, L=lake)	Code
DamagePcnt	Facility damage percent	Percent

Field Name	Field Description	Units
DmgPct	Facility damage percent	Percent
Fac_Type	Type of facility	Text
Functionality	Whether or not facility will be functional after hurricane (0=functional,1=nonfunctional)	True/False
Loss	Total economic loss of facility	Thousands of Dollars
MaxTimetoFullRestoration	Maximum time to full restoration	Days
ReturnPeriodID	Return period for hazard input used	Years
ReturnPeriodId	Return period for hazard input used	Years
StudyCaseID	Study case number	
StudyCaseld	Study case number	

3.5 Hazard

Field Name	Field Description	Units
Depth*	Water Depth	feet

*ParamValue was used in older versions of export

Hurricane

The tables below are designed to help users understand and utilize Hazus Export Tool results for hurricane scenarios by describing the tool outputs. It enables users to extract critical data and information related to hurricane scenarios, thereby enhancing their ability to make informed decisions and develop effective mitigation strategies.

To gain deeper insights into the specific fields and data presented in Hazus for hurricane analysis and its Export Tool, you can refer to the [Hazus User & Technical Manual](#) page “Hazus Hurricane Manuals” section.

4.1. Building Damage by Types

Field Name	Field Description	Unit
BuildingType Construction type		Text
CONCRETE	Concrete construction	
MASONRY	Masonry construction	
STEEL	Steel frame construction	
WOOD	Wood frame construction	
MH	Manufactured Housing	
NoDamage*	Number of buildings whose probability of sustaining no damage exceeds 50%	Building count
Affected*	Number of buildings whose probability of sustaining minimum damage exceeds 50% and no greater category exceeds 50%	Building count
Minor*	Number of buildings whose probability of sustaining moderate damage exceeds 50% and no greater category exceeds 50%	Building count
Major*	Number of buildings whose probability of sustaining severe damage exceeds 50% and no greater category exceeds 50%	Building count
Destroyed*	Number of buildings whose probability of sustaining complete damage exceeds 50%	Building count

*See [Hazus User & Technical Manuals](#) for descriptions of damage states according to construction type

4.2. Building Damage by Occupancy

Field Name	Field Description	Units
BuildingType Construction type		Text
CONCRETE	Concrete construction	
MASONRY	Masonry construction	
STEEL	Steel frame construction	
WOOD	Wood frame construction	
MH	Manufactured Housing	
NoDamage*	Number of buildings whose probability of sustaining no damage exceeds 50%	Building count
Affected*	Number of buildings whose probability of sustaining minimum damage exceeds 50% and no greater category exceeds 50%	Building count
Minor*	Number of buildings whose probability of sustaining moderate damage exceeds 50% and no greater category exceeds 50%	Building count
Major*	Number of buildings whose probability of sustaining severe damage exceeds 50% and no greater category exceeds 50%	Building count
Destroyed*	Number of buildings whose probability of sustaining complete damage exceeds 50%	Building count

*See [Hanus User & Technical Manuals](#) for descriptions of damage states according to construction type

4.3. County Results & Tract Results

Field Name	Field Description	Units
CountyFips	5-digit census code for county	
EconLoss	Financial impacts from building damage, building content damage, wages and income lost, relocation costs, and lost rent payments	Thousands of dollars
Population	Total county population	People
Households	Total county households	Households
DebrisBW	Debris generated from brick and wood structures	Tons
DebrisCS	Debris generated from concrete and steel structures	Tons
DebrisTree	Debris generated from windblown trees	Tons
ElgDebTree	Tree debris eligible for removal using disaster assistance (on or near public rights-of-way)	Tons
DisplHouse	Number of households displaced from their homes due to building damage	Households

Field Name	Field Description	Units
Shelter	Number of people needing public shelter assistance	People
NoDamage*	Number of buildings whose probability of sustaining no damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
Affected*	Number of buildings whose probability of sustaining minimum damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
Minor*	Number of buildings whose probability of sustaining moderate damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
Major*	Number of buildings whose probability of sustaining severe damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
Destroyed*	Number of buildings whose probability of sustaining complete damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RESNoDam	Number of residential buildings whose probability of sustaining no damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RESAffect	Number of residential buildings whose probability of sustaining minimum damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RESMinor	Number of residential buildings whose probability of sustaining moderate damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RESMajor	Number of residential buildings whose probability of sustaining severe damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
RESDestr	Number of residential buildings whose probability of sustaining complete damage exceeds 50% and is greater than the probability of sustaining other levels of damage	Building count
CountyFips	5-digit census code for county	
CountyName	5-digit census code for county	Text
State	Name of county	Text
CareFlty	Number of hospitals whose probability of being functional on the first day of the earthquake is less than 50%	Building count
EmergencyCtr	Number of emergency centers whose probability of being functional on the first day of the earthquake is less than 50%	Building count
FireStation	Number of fire station whose probability of being functional on the first day of the earthquake is less than 50%	Building count
PoliceStation	Number of police stations whose probability of being functional on the first day of the earthquake is less than 50%	Building count

Field Name	Field Description	Units
School	Number of schools whose probability of being functional on the first day of the earthquake is less than 50%	Building count
BuildingExposure	Total Building Exposure for all occupancy types in U.S. Dollars	Dollars
ContentExposure	Total Content Exposure for all occupancy types in U.S. Dollars	Dollars
TotalExposure	Total Building and Content Exposure for all occupancy types in U.S. Dollars	Dollars
LossRatio	The ratio of EconLoss divided by BuildingExposure (where 0.1 = 10%) to indicate loss severity	Ratio

*See [Hazard User & Technical Manuals](#) for descriptions of damage states according to construction type

*note that shapefile field names may be truncated after 10 characters

4.4. Damaged Facilities

Field Name	Field Description	Units
Return_Period	Return period of hurricane hazard used as input (0=deterministic)	Years
BCURRENT	Return period of current results (yes=1, no=0)	
LossOfUse	Whether or not facility will be functional after hurricane	True/False
Affected*	Probability that building sustained minimum damage	Percent
Minor*	Probability that building sustained moderate damage	Percent
Major*	Probability that building sustained severe damage	Percent
Destroyed*	Probability that building sustained complete damage	Percent
huScenarioName	Scenario name for hurricane hazard used as input	Text
Fac_Type	Type of facility	Text
MajorAndDestroyed	Sum of Major and Destroyed probabilities	Percent

*See [Hazard User & Technical Manuals](#) for descriptions of damage states according to construction type

4.5. Hazard

Field Name	Field Description	Units
PeakGust*	3 second peak gust 10m above ground	mph

*ParamValue was used in older versions of export

Tsunami

The tables below are designed to help users understand and utilize Hazus Export Tool results for tsunami scenarios by describing the tool outputs. It enables users to extract critical data and information related to tsunami scenarios, thereby enhancing their ability to make informed decisions and develop effective mitigation strategies.

To gain deeper insights into the specific fields and data presented in Hazus for tsunami analysis and its Export Tool, you can refer to the [Hazus User & Technical Manual](#) page “Hazus Tsunami Manuals” section.

5.1. Building Damage by Type

Field Name	Field Description	Units
BldgType	Construction type codes	Code
C1H	Concrete Moment Frame High-Rise	
C1L	Concrete Moment Frame Low-Rise	
C1M	Concrete Moment Frame Mid-Rise	
C2H	Concrete Shear Walls High-Rise	
C2L	Concrete Shear Walls Low-Rise	
C2M	Concrete Shear Walls Mid-Rise	
C3H	Concrete Frame with Unreinforced Masonry Infill Walls High-Rise	
C3L	Concrete Frame with Unreinforced Masonry Infill Walls Low-Rise	
C3M	Concrete Frame with Unreinforced Masonry Infill Walls Mid-Rise	
DFLT	Default (Wood)	
MH	Manufactured Home	
PC1	Precast Concrete Tilt-Up Walls	
PC2H	Precast Concrete Frames with Concrete Shear Walls High-Rise	
PC2L	Precast Concrete Frames with Concrete Shear Walls Low-Rise	
PC2M	Precast Concrete Frames with Concrete Shear Walls Mid-Rise	
RM1L	Reinforced Masonry Bearing Walls with Wood or Metal Deck Diaphragms Low-Rise	
RM1M	Reinforced Masonry Bearing Walls with Wood or Metal Deck Diaphragms Mid-Rise	

Field Name	Field Description	Units
RM2H	Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms High-Rise	
RM2L	Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms Low-Rise	
RM2M	Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms Mid-Rise	
S1H	Steel Moment Frame High-Rise	
S1L	Steel Moment Frame Low-Rise	
S1M	Steel Moment Frame Mid-Rise	
S2H	Steel Braced Frame High-Rise	
S2L	Steel Braced Frame Low-Rise	
S2M	Steel Braced Frame Mid-Rise	
S3	Steel Light Frame	
S4H	Steel Frame with Cast-in-Place Concrete Shear Walls High-Rise	
S4L	Steel Frame with Cast-in-Place Concrete Shear Walls Low-Rise	
S4M	Steel Frame with Cast-in-Place Concrete Shear Walls Mid-Rise	
S5H	Steel Frame with Unreinforced Masonry Infill Walls High-Rise	
S5L	Steel Frame with Unreinforced Masonry Infill Walls Low-Rise	
S5M	Steel Frame with Unreinforced Masonry Infill Walls Mid-Rise	
URML	Unreinforced Masonry Bearing Walls Low-Rise	
URMM	Unreinforced Masonry Bearing Walls High-Rise	
W1	Wood, Light Frame (= 5,000 sq. ft.)	
W2	Wood, Commercial and Industrial Wood (>5,000 sq. ft.)	
Structures	Total number of buildings in study region	Building count
Affected	Number of buildings whose damage in dollars represent 5% or less of its value	Building count
Minor	Number of buildings whose damage in dollars represent 5-30% of its value	Building count
Major	Number of buildings whose damage in dollars represent 30-50% of its value	Building count
Destroyed	Number of buildings whose damage in dollars represent more than 50% of its value	Building count

5.2. Building Damage by Occupancy

Field Name	Field Description	Units
Occupancy	Building occupancy type based on census information	Text
Total	Total number of buildings in study region	Building count
Affected	Number of buildings whose damage in dollars represent 5% or less of its value	Building count
Minor	Number of buildings whose damage in dollars represent 5-30% of its value	Building count
Major	Number of buildings whose damage in dollars represent 30-50% of its value	Building count
Destroyed	Number of buildings whose damage in dollars represent more than 50% of its value	Building count

5.3. County Results & Tract Results

Field Name	Field Description	Units
CountyFips	5-digit census code for county	
EconLoss	Financial impacts from building damage, building content damage, wages and income lost, relocation costs, and lost rent payments	Thousands of dollars
Population	Total county population	People
Households	Total county households	Households
FatalDayFair	Number of fatalities sustained during a daytime tsunami if community preparedness level is fair	People
FatalDayGood	Number of fatalities sustained during a daytime tsunami if community preparedness level is good	People
FatalDayPoor	Number of fatalities sustained during a daytime tsunami if community preparedness level is poor	People
FatalNiteFair	Number of fatalities sustained during a nighttime tsunami if community preparedness level is fair	People
FatalNiteGood	Number of fatalities sustained during a nighttime tsunami if community preparedness level is good	People
FatalNitePoor	Number of fatalities sustained during a nighttime tsunami if community preparedness level is poor	People
InjDayFair	Number of injuries sustained during a daytime tsunami if community preparedness level is fair	People
InjDayGood	Number of injuries sustained during a daytime tsunami if community preparedness level is good	People
InjDayPoor	Number of injuries sustained during a daytime tsunami if community preparedness level is poor	People

Field Name	Field Description	Units
InjNiteFair	Number of injuries sustained during a nighttime tsunami if community preparedness level is fair	People
InjNiteGood	Number of injuries sustained during a nighttime tsunami if community preparedness level is good	People
InjNitePoor	Number of injuries sustained during a nighttime tsunami if community preparedness level is poor	People
Total	Total number of buildings in study region	Building count
Affected	Number of buildings whose damage in dollars represent 5% or less of its value	Building count
Minor	Number of buildings whose damage in dollars represent 5-30% of its value	Building count
Major	Number of buildings whose damage in dollars represent 30-50% of its value	Building count
Destroyed	Number of buildings whose damage in dollars represent more than 50% of its value	Building count
RES1Affect	Number of single-family buildings whose damage in dollars represent 5% or less of its value	Building count
RES1Minor	Number of single-family buildings whose damage in dollars represent 5-30% of its value	Building count
RES1Major	Number of single-family buildings whose damage in dollars represent 30-50% of its value	Building count
RES1Destroyed	Number of single-family buildings whose damage in dollars represent more than 50% of its value	Building count
RES2Affect	Number of manufactured homes whose damage in dollars represent 5% or less of its value	Building count
RES2Minor	Number of manufactured homes whose damage in dollars represent 5-30% of its value	Building count
RES2Major	Number of manufactured homes whose damage in dollars represent 30-50% of its value	Building count
RES2Destroyed	Number of manufactured homes whose damage in dollars represent more than 50% of its value	Building count
Tract	11-digit census code for tract	
CountyName	Name of county	Text
CountyFips	5-digit census code for county	
State	State abbreviation for county	Text
BuildingExposure	Total Building Exposure for all occupancy types in U.S. Dollars	Dollars
ContentExposure	Total Content Exposure for all occupancy types in U.S. Dollars	Dollars
TotalExposure	Total Building and Content Exposure for all occupancy types in U.S. Dollars	Dollars

Field Name	Field Description	Units
LossRatio ¹	The ratio of EconLoss divided by BuildingExposure (where 0.1 = 10%) to indicate loss severity	Ratio
CapitalStockLoss ²	Financial impacts from building damage, building content damage, and building inventory damage	Dollars
IncomeLoss ²	Financial impacts from wages and income lost, relocation costs, and lost rent payments	Dollars
RegionName ²	Hazus Study Region Name	Study Region
ScenarioName ²	Hazus Scenario Name	Scenario

*note that shapefile field names may be truncated after 10 characters

¹For NRI Update Analysis for Tsunami export tool, Loss Ratio is the ratio of CapitalStockLoss divided by TotalExposure (where 0.1 = 10%) to indicate loss severity

²Item is unique to NRI Update Analysis.

5.4. Hazard

Field Name	Field Description	Units
Depth*	Medium Flow Depth	Feet

*ParamValue was used in older versions of export