

# Social Vulnerability Index: An Emergency Response Tool

## Understanding Social Vulnerability

Every community must prepare for and respond to hazardous events, whether a natural disaster, such as a hurricane or disease outbreak, or a human-made event, such as a harmful chemical spill. A number of factors, including poverty, lack of access to transportation, and crowded housing may weaken a community's ability to prevent human suffering and financial loss in the event of disaster. After a disaster, these vulnerability factors may increase reliance on the social safety net.

## The Social Vulnerability Index

The Social Vulnerability Index (SVI) is a web-based tool that allows users to examine which communities may be most vulnerable to external stressors such as floods, forest fires, power outages and winter storms. The SVI compiles 16 factors at the Census Tract level in four categories: Socioeconomic Status, Household/Disability, Minority/Language, and Housing/Transportation.

## Identifying Vulnerable Communities

New Hampshire Environmental Public Health Tracking created the SVI to help emergency responders and public health professionals identify communities that will most likely need support before, during, and after a hazardous event. Vulnerability can be defined at the community or individual level. High-risk populations include the elderly, disabled, those with lack of vehicle access, crowded housing, and low income.



Central and Southern New Hampshire experienced severe flooding caused by as much as 14" of rainfall in May 2006.

## Using the SVI in Emergency Response

Flood, ice-storm, tornado—each type of emergency will impact communities differently depending on the community's baseline vulnerability and ability to respond. Emergency responders can determine how to best plan for and respond to emergencies using a vulnerability assessment.

Emergency responders can use the SVI to:

- Estimate the amount of needed supplies such as food, water, medicine, and bedding.
- Help decide how many emergency personnel are required to assist people.
- Identify areas in need of emergency shelters.
- Plan the best way to evacuate people, accounting for those who have special needs, such as people without vehicles, the elderly, or people who do not understand English well.
- Identify communities that will need continued support to recover following an emergency or natural disaster.

## New Hampshire Public Health Data

### Featured Content



2010-2014 Socioeconomic Vulnerability



2010-2014 Demographic Vulnerability Measures



2010-2014 Housing & Transportation Vulnerability



2010-2014 Social Vulnerability Overview

Access the Social Vulnerability Index at:  
<http://nhvieww.maps.arcgis.com/>

*SVI measures can help public health and social service agencies prioritize resources.*

## Available Social Vulnerability Index Measures

### Socioeconomic Status:

Poverty—population living below Federal poverty level

Unemployment—age 16+ and seeking work

Per Capita Income

Education—age 25+ without a high school diploma

Health Insurance—age less than 65 without insurance

### Household Composition/Disability:

Children—population age less than 18

Elderly—population age 65 and over

Disability—age 5+ with a disability

Single Parent—percentage of households with children

### Minority Status/Language:

Minority—Hispanic or non-white race

Limited English—age 5+ who speak English less than “well”

### Housing/Transportation:

Large Apartment Buildings—10 or more housing units per building

Mobile Homes—percentage of housing units

Crowding—housing units with more than one person per room

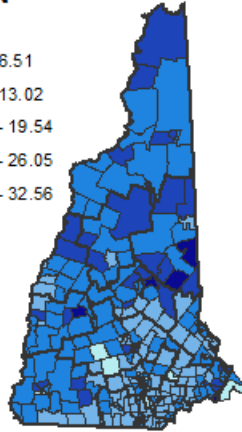
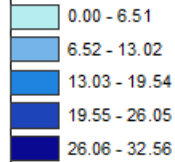
No Vehicle—households with no vehicle access

Group Quarters—population living in group quarters

## New Hampshire Social Vulnerability Index Measures For Emergency Response

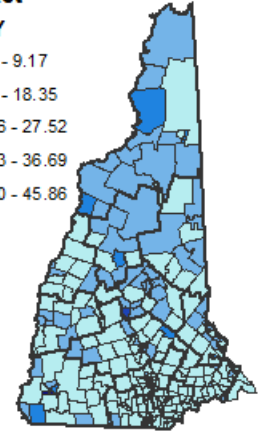
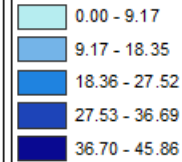
SVI by Tract

### OVER 65



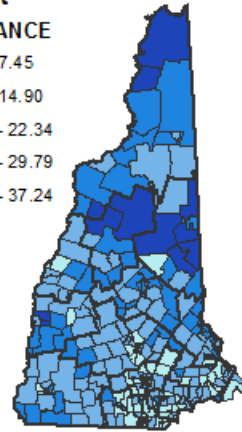
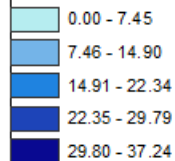
SVI by Tract

### POVERTY



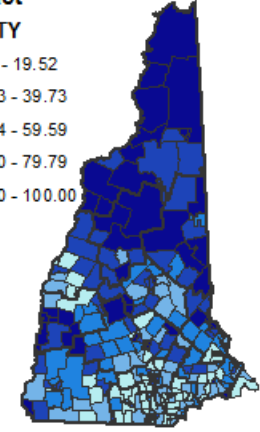
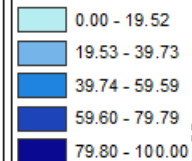
SVI by Tract

### NO INSURANCE



SVI by Tract

### DISABILITY



Many factors influence an individual's or a community's ability to prepare for and respond to disaster. The Social Vulnerability Index Tool can be used to identify populations at-risk and to prioritize resources. Relevant variables include percentage of population: age 65 and over, in poverty, with no health insurance, and with a disability.

For more information, visit:

NH Environmental Public Health Tracking  
[wisdom.dhhs.nh.gov/EPHT](http://wisdom.dhhs.nh.gov/EPHT)

CDC Disaster Epidemiology  
[cdc.gov/nceh/hsb/disaster/epidemiology.htm](http://cdc.gov/nceh/hsb/disaster/epidemiology.htm)

NH Homeland Security & Emergency Management  
[nh.gov/safety/divisions/hsem/](http://nh.gov/safety/divisions/hsem/)

