



Background

- Disabled individuals are disproportionately affected by disasters because:
 - They lack access to evacuation, response, and recovery activities; and
 - Disabilities are often not accounted for in planning and preparedness efforts.¹
- Communities with large proportions of disabled people may require additional and specialized resources when disasters occur. Ambulatory and self-care are two of the six disability types measured by the American Community Survey.
- Higher values suggest higher vulnerability relative to other watersheds.

THIS INDICATOR REFLECTS THE PERCENTAGE OF PEOPLE WITHIN THE COMMUNITY THAT MAY BE MORE AFFECTED BY DISASTERS DUE TO DISABILITY.

Data Sources

Data Source	Description	Spatial Resolution	Temporal Resolution
U.S. Census Bureau – 2008-2012 American Community Survey 5-year Estimates, Table S1810 – Disability Characteristics	Estimated number of disabled people by Census tract from year 2008-2012	Census tract	Survey responses collected in 2008-2012
U.S. Census Bureau – Census Tracts	Shapefiles of Census 2010 Census tracts	Census tract	Every 10 years; minor revisions yearly

This Indicator Was Used to Assess the Vulnerability of One of USACE’s Eight Business Lines

Business Line	Importance Weight (Varies from 1 to 2 for USACE)
Emergency Management	1.6

Calculation

- Identify which Census tracts are within each HUC-4 watershed (i.e., spatially link Census tract disability data to intersecting HUC-4 watersheds within a GIS).
- For Census tracts located within multiple HUC-4 watersheds, proportionally allocate the disabled population count to the intersecting HUC-4 watersheds based on area.
- Sum the disabled population and total population values within each HUC-4 watershed. The ratio, $\frac{\text{Disabled Pop.}}{\text{Total Pop.}}$, represents the percent of people disabled within each HUC-4 watershed.

¹ Global Partnership for Disability & Development. 2009. The Impact of Climate Change on People with Disabilities. Available online at: https://www.ucl.ac.uk/lc-ccr/centrepublishings/staffpublications/Impact_of_Climate_Change_on_Disability-Report-2010.pdf



LOW

LOW INDICATOR VALUE
Conventional evacuation and recovery options may be effective for populations with few disabled people.

HIGH INDICATOR VALUE
Communities with a relatively larger proportion of disabled people may need additional resources during crises.



HIGH

Onancock, VA - Courtesy of National Guard

Marietta, GA - Courtesy of CDC