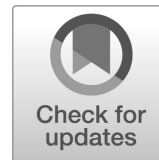


Community Resilience Assessment Methodology Products: Research Overview

NIST Research Brief
NIST RB 8

August 2025



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Research Summary

The National Institute of Standards and Technology (NIST) operates the Community Resilience Program (CRP) to help communities and stakeholders develop resilience and recovery solutions by focusing on the nexus of buildings, built infrastructure systems, and their supporting social and economic functions. Through science-based tools, guidance, and indicators, NIST aims to empower communities to improve their ability to prepare for, withstand, and recover from acute shocks, chronic stressors, and compound impacts.

The Community Resilience Assessment Methodology Products project develops the tools for communities to quantitatively assess their resilience over time. This assessment is based on a comprehensive suite of community resilience indicators that capture essential elements of physical, social, and economic systems. Research areas include, but are not limited to: indicator validation studies, methods for downscaling indicators, and identifying actions that influence resilience outcomes. To support this work, tools have been developed and are available to the research team: 1) Inventory of Community Resilience Indicators & Assessment Frameworks and 2) Tracking Community Resilience (TraCR) database.

Community Resilience Assessment Methodology Products

The National Institute of Standards and Technology (NIST) Community Resilience Assessment Methodology team helps communities and researchers to assess resilience at the community-scale based on community functions, supported by buildings and infrastructure systems, and the recovery of those functions following a disruptive hazard event.

This handout summarizes the foundational products that provide tools, metrics, and guidance for the measurement of baseline resilience and changes in resilience over time.

Webpage:

<https://www.nist.gov/community-resilience/assessment-products>

Indicator Inventory

Community Resilience Indicator Inventory



- For indicator identification, consensus, and evaluation
- Includes 56 frameworks, 3,298 indicators, and 7,165 measures

An Annotated Bibliography
that outlines each selected framework



An Inventory Data Article
which presents summary statistics



Construct Validity

- Systematic identification of shared patterns and commonalities among indicators used across frameworks
- Comprehensive review of content validation methods and evidence-based recommendations

Indicator Taxonomy



Content Validation



Quality of Evidence



Indicator Database

Tracking Community Resilience (TraCR) Database v1.0

TraCR Database is expected to be published in July 2025.

- For the community resilience assessment metrics
- Version 1.0 includes 101 measures with metadata

Criterion Validity

- Empirically assess the internal consistency and validity of commonly used indicators
- Establish a benchmark through the analysis of longitudinal community outcomes

Commonly Used Indicator Validation



Community Resilience Benchmark



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