

After the Storm: Optimizing Building Resilience Codes | Governance | Community

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Institute for Building Technology and Safety



IBTS is a 501(c)(3) nonprofit organization established to provide unbiased professional services, while enhancing the communities in which we work.

At IBTS, our mission is to deliver quality services to meet the challenges of governance at all levels while enhancing public safety, economic development, and the general welfare of the community.

A blue circular graphic containing text. The text is arranged in two lines, with a horizontal line separating them. The first line reads 'public sector' followed by 'accountability' in a bold, italicized font. The second line reads 'private sector' followed by 'flexibility' in a bold, italicized font.

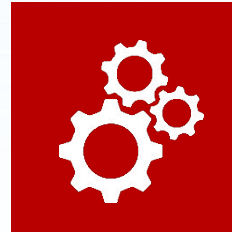
public sector
accountability

private sector
flexibility



What We Do

State & Federal
Programs



Technology
Services

Local Government
Solutions



Energy Solutions
Leadership

Education &
Training



Quality
Assurance

Compliance Risk
Management



Disaster Preparedness
& Recovery

Lessons from the Heart of America

IBTS has worked after the storm in dozens of communities across the country.

IBTS Assistance in HUD Funding Across States

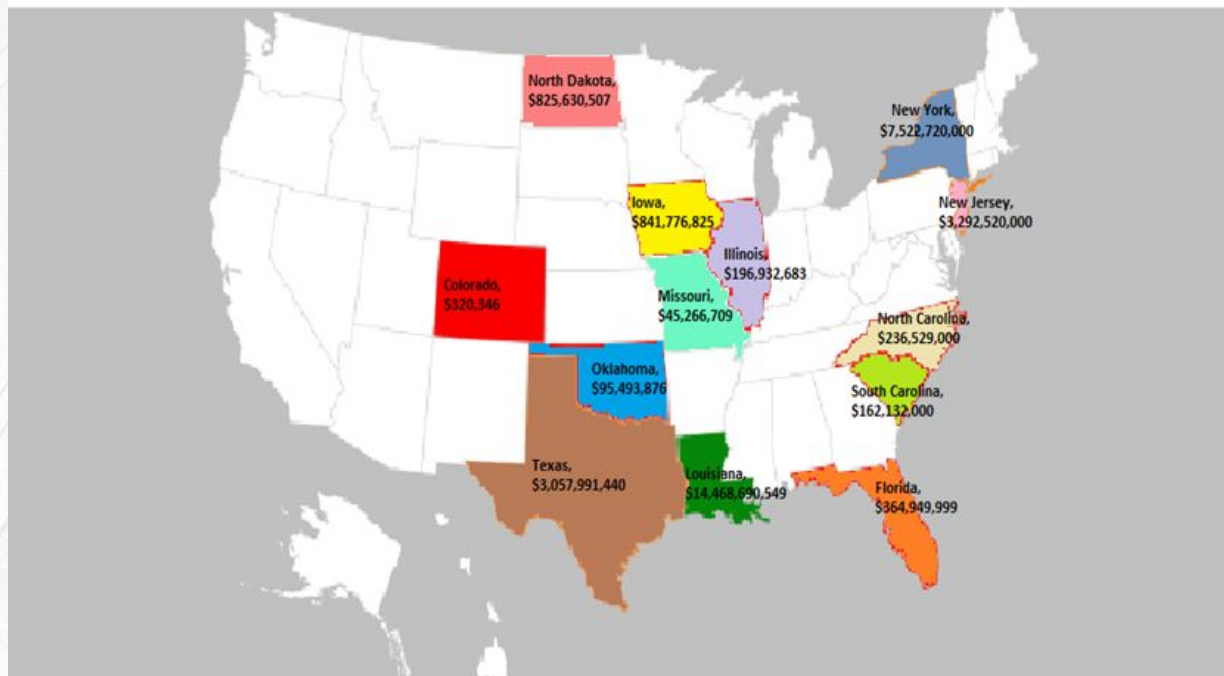


Figure IV.2 IBTS Disaster Recovery Services and HUD Funding by State

Municipal Service Focus

IBTS provides municipal services & disaster recovery assistance in 130+ small communities and is guided by a Board of Directors consisting of:



IBTS Resilience Approaches



- **Implementation & Management**

- Building Codes/Regulation
- Grants Research, Writing, Administration
- Community Engagement
- Hazard Mitigation
- Floodplain Management

- **Assessments & Planning**

- CRAFT (Assessment; Project Prioritization; Action Planning)
- Resilience Governance
- Energy Efficiency, Solar QA

Research

- OnHAND
- Policy & Communications
- Floodplain Management

Optimizing for Resilience Lessons Learned



1. Stronger Building Codes
Translate to Significant Risk
Mitigation
2. High-Performance
Construction in Federal
Appropriations
3. Post Disaster Stresses
New Construction Permit
System
4. Success Requires More
than Regulation



Resilient Building Administration

- Specification/Damage Assessment / Estimate / Scope
- Information gathering
- Project development
- Grants administration
- Project oversight
- Focus efforts on future PRE-Coverry

Resilient Code Best Practice

1. Management, operational, and service delivery systems
2. Relationships and enforcement with builders and contractors
3. Training building department staff, contractors, builders and homeowners

Resilient Code Outcomes

- Homes built to new code 65% less likely to sustain hurricane damage
- Community Rating System 3% residential, 7% commercial insurance premium reduction
- Points for Insurance Institute for Business & Home Safety's Rate the States

Resilience Optimization: Community

- Historic context
- Green infrastructure
- Engagement
- Action Planning



**BUILDING
INNOVATION** 2019

National Institute of
BUILDING SCIENCES

CONFERENCE & EXPO

Puerto Rico Recovery



TRANSFORMATION AND INNOVATION IN THE WAKE OF DEVASTATION

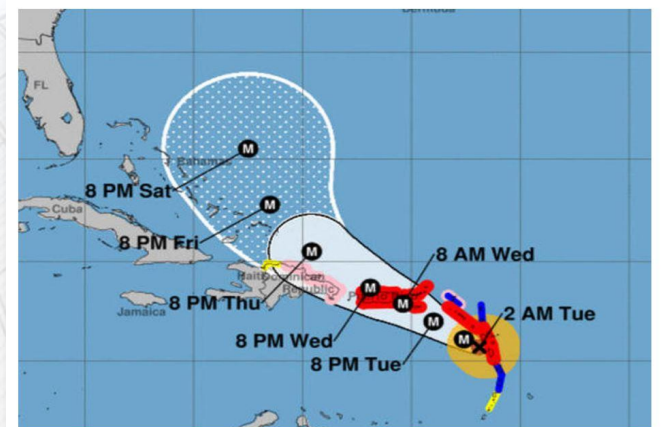
AN ECONOMIC AND DISASTER RECOVERY PLAN
FOR PUERTO RICO



COR



RICARDO ROSSELLÓ NEVARES
GOVERNOR OF PUERTO RICO



Hurricane Maria's probable path as of 2 a.m. September 19, 2017 / NATIONAL HURRICANE CENTER



Resilience Optimization: Governance



- Planning
- Public works/infrastructure
- Community participation
- Finance
- Human resources
- Security
- Schools
- Technology

ICMA

Leaders at the Core of Better Communities

Resilience Optimization: Pre-Event Agreements

- Disaster recovery services
- GOVmotus
- Disaster planning
- Plan activation
- Initial disaster response
- Post-disaster services
- Recovery administration
- Resilience planning

OnHand Tips, Tools, Links

www.ibtsonhand.org



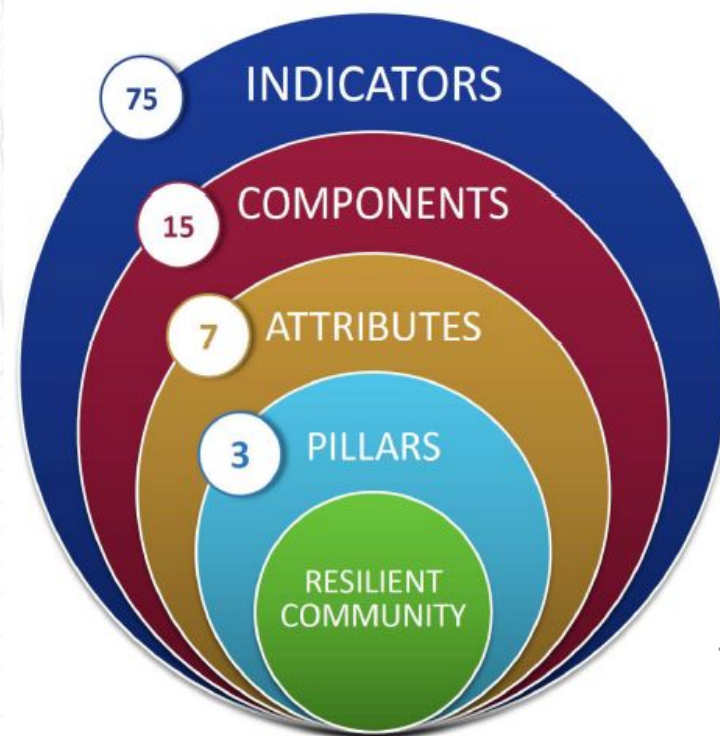
CUSTOMIZE YOUR CONTENT

Customized, actionable content at your fingertips.
Find information by peril, stakeholder group, location and more.



Creating Community Resilience Action Plans

- Survey enabled
 - Informs community resilience decision-making
 - Increase awareness of strengths and vulnerabilities
 - Create common vision and strategy
 - Provide actionable recommendations
- **Community Resilience Assessment Framework & Tools**



Resilience: Building Owners and Managers Scorecard



The screenshot shows the UNISDR website header with the logo and navigation menu. The main content area is titled "Disaster resilience scorecard for cities". It features a green cover image of the scorecard and a detailed description of the tool. The description states that the scorecard provides assessments for local governments to monitor progress and challenges in implementing the Sendai Framework for Disaster Risk Reduction (2015-2030). It is structured around UNISDR's Ten Essentials for Making Cities Resilient and offers two levels of assessment: Level 1 (Preliminary level) and Level 2 (Detailed assessment). Level 1 involves 47 questions/indicators with a 0-3 score, suitable for a 1-2 day workshop. Level 2 is a multi-stakeholder exercise taking 1-4 months, based on 117 indicator criteria with a 0-5 score, used for a detailed city resilience action plan.

Disaster resilience scorecard for cities

The Scorecard provides a set of assessments that will allow local governments to monitor and review progress and challenges in the implementation of the Sendai Framework for Disaster Risk Reduction: 2015-2030, and assess their disaster resilience. It is structured around UNISDR's Ten Essentials for Making Cities Resilient. It offers the potential for scoring at two levels:

- Level 1: Preliminary level, responding to key Sendai Framework targets and indicators, and with some critical sub-questions. This approach is suggested for use in a 1 to 2 day city multi-stakeholder workshop. In total there are 47 questions indicators, each with a 0 – 3 score;
- Level 2: Detailed assessment. This approach is a multi-stakeholder exercise that may take 1 –4 months and can be a basis for a detailed city resilience action plan. The detailed assessment includes 117 indicator criteria, each with a score of 0 – 5.

[Preliminary assessment](#)

[Detailed assessment tool](#)

Screenshot



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