

**Report Out Slides
Fort Collins, CO
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Data, Metrics, and Tools (DMT) Committee

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Group A: NIST Community Resilience Planning Guide Steps 1-2

- **Step 1: Form A Collaborative Planning Team**
 - Robust community resilience plan represents the interest of all stakeholders in the community and benefits from collaboration among community leaders, public and private stakeholders, and other interested community members.
- **Step 2: Understand The Situation**
 - The social functions and needs of a community should drive the requirements of the built environment for a community to be resilient.



Questions to identify data resources for gaining stakeholder buy-in during steps 1 and 2

How has performing a planning process like this benefitted other communities?

How can community leaders quantify how resilient their community is?

How will this process benefit this specific community?

What are the key points or data we can provide community leaders to help them make their case to a Board of Supervisors, City Council, etc.?

- Additional funding opportunities
- Reduced insurance rates
- Decreased loss of life, property, and/or economic well-being

Approach

- Decreased time to recover economically after a hazard event
- Use the Community Resilience Planning Guide - Volume 2, Chapter 17 for additional metrics
- Read through steps 1 and 2 of the NIST Community Resilience Planning Guide.
- Identified the data needs listed in each section and subsection of the guide.
- Drafted strawman data table with sources pulled from the NIST Community Resilience Planning Guide.
- Added initial list of possible data owners and where they might be found.

Approach (cont.)

- Worked with Group A members to identify additional sources for data and metrics that a local community might use to implement steps 1 and 2 in this guide.
- Held bi-weekly calls with NIST DMT Group A.
- Discussed process with group members and identified path forward.
 - Addressed challenge of what comes first - metric or data
- Drew from public, private, and non-profit sector data sources
- Created matrix to track several fields (next slide)
- Will continue to refine matrix and add additional data sources.

Sample of Data Source Matrix

Created matrix to track the following fields:

NIST RKB Taxonomy - Strategy
 NIST CRPG Step/Section
 NIST CRPG Sub-step
 Metric
 Data

Potential Data Owner
 Web Source/URL
 Sector
 Original Source for Metric/Data
 Description/Notes

#	NIST RKB Taxonomy - Strategy	NIST CRPG Step/Section	NIST CRPG Sub-step	Metric	Data	Potential Data Owner	Web Source/URL	Sector	Original Source for Metric/Data	Description/Notes
1	Social Resilience	Step 2 - Characterize Built Environment (Section 3.2)	Identify and characterize buildings and infrastructure systems, including condition, location, and dependencies between and among systems	-	HUD Comprehensive Housing Affordability Strategy (CHAS) Data	HUD	http://www.huduser.gov/portal/data_assets/CHASData_download_chas.html	Public	MIFLG Report - Community Resilience Indicators and National-Level Measures: A Draft Interagency Concept	The Comprehensive Housing Affordability Strategy (CHAS) provided by the U.S. Department of Housing and Urban Development (HUD), offers a wide-ranging look at housing conditions. Source data is Housing Condition Indicator and H
2	Social Resilience	Step 2 - Identify and Characterize the Social Dimensions (Section 3.3)	Identify and characterize functions and dependencies of social institutions...based on individual/social needs met by these institutions...	-	HHS Area Health Resources File (AHRF)	HHS	http://ahrh.hrsa.gov/download.htm	Public	MIFLG Report - Community Resilience Indicators and National-Level Measures: A Draft Interagency Concept	U.S. Department of Health and Human Services provides a comprehensive set of health resources and information, including care physicians and local population. Source data is proposed measure of Health Care, The Centers for Disease Control and
3	Social Resilience	Step 2 - Identify and Characterize the Social Dimensions (Section 3.3)	Identify and characterize functions and dependencies of social institutions...based on individual/social needs met by these institutions...	-	CDC Diabetes County-Level Data	CDC	http://www.cdc.gov/diabetes/data/outing.html	Public	MIFLG Report - Community Resilience Indicators and National-Level Measures: A Draft Interagency Concept	Information includes (1) State- and county-level data on how counties compare with national trends in diagnosed diabetes prevalence, (2) State- and county-level data on how counties compare with national trends in obesity over time and by gender, and (3) State- and county-level data on how counties compare with national trends in diabetes-related deaths. Source data is proposed measure of Health Risk
4	Ecospetems Resilience	Step 2 - Characterize Built Environment (Section 3.2)	Identify and characterize buildings and infrastructure systems, including condition, location, and dependencies between and among systems	-	EPA 2011NATA Assessment Results	EPA	http://www.epa.gov/national-air-toxics-assessment/2011-nata-assessment-results	Public	MIFLG Report - Community Resilience Indicators and National-Level Measures: A Draft Interagency Concept	The National Air Toxics Assessment (NATA) provides estimates of respiratory disease risk from air contaminants. Potential data is Environmental Health Indicator
5	Organizational Resilience	Step 2 - Identify and Characterize the Social Dimensions (Section 3.3)	Identify and characterize functions and dependencies of social institutions...based on individual/social needs met by these institutions...	-	EDA Innovation Index	U.S. Commerce Department's Economic Development Administration	http://www.eda.gov/america/edg/innovation/index.html	Public	MIFLG Report - Community Resilience Indicators and National-Level Measures: A Draft Interagency Concept	Developed through an Economic Development Administration (EDA) sponsored effort, the Index of Economic Development (IED) provides a measure of a region's economic health. Source data is proposed measure of Economic Health/Sector Strength
6	Social Resilience	Step 2 - Identify and Characterize the Social Dimensions (Section 3.3)	Identify and characterize functions and dependencies of social institutions...based on individual/social needs met by these institutions...	-	ELS Local Area Unemployment Statistics	U.S. Bureau of Labor Statistics	http://www.bls.gov/tables.htm	Public	MIFLG Report - Community Resilience Indicators and National-Level Measures: A Draft Interagency Concept	U.S. Bureau of Labor Statistics (BLS) provides unemployment estimates for each county. Source data is proposed measure of Economic Health/Sector Strength
7	Social Resilience	Step 2 - Identify and Characterize the Social Dimensions (Section 3.3)	Identify and characterize functions and dependencies of social institutions...based on individual/social needs met by these institutions...	-	BEA Local Area Personal Income	U.S. Bureau of Economic Analysis	http://www.bea.gov/table/index_regional.cfm	Public	MIFLG Report - Community Resilience Indicators and National-Level Measures: A Draft Interagency Concept	U.S. Bureau of Economic Analysis (BEA) provides personal income, which BEA defines as the income of the residents of a given area. BEA measures personal income based on a given area's population. Source data is proposed measure of Economic Health/Sector Strength
8	Social Resilience	Step 2 - Identify and Characterize the Social Dimensions (Section 3.3)	Identify how social functions are supported by the built environment	-	BTS Intermodal Passenger Connectivity Database	U.S. Bureau of Transportation Statistics	http://www.transportation.gov/ITD/PCD.aspx?DE_ID=640&link=1	Public	MIFLG Report - Community Resilience Indicators and National-Level Measures: A Draft Interagency Concept	The Intermodal Passenger Connectivity Database (ITD) provides a national quantification of the passenger transportation system. Source data is proposed measure of Transportation

Sources Identified

- **Included in matrix:**
 - American Red Cross – Guidebook for Creating Resilience Networks
 - NIST Community Resilience Planning Guide – Volumes I and II
 - FEMA Mitigation Framework Leadership Group (MitFLG) Draft Community Resilience Indicators and National-Level Measures Paper
 - Community Resilience Building Workshop Materials
 - Colorado Homeland Security Resources
 - DHS S&T Centers of Excellence Resources
- **To be included in matrix:**
 - Federal Resilience Metrics Survey

General Observations

- Infinite number of sources out there - this is an endless exercise!
How do we add value for a community implementing the guide?
- Identify data, metric, and tools (DMT) that address community's primary challenges.
- Presentation of the RKB should be customizable or searchable based on the type of user looking at the data
 - Display should be more than a list of DMT – handy, not comprehensive
 - Should allow the user to select the types of DMT they want
 - Hazard/disaster Type
 - Critical Infrastructure Sector Type
 - Expected End User

- Performance goals
 - How to balance getting broad stakeholder input with infrastructure sector detailed needs?
 - How to communicate and engage with the community?
 - Training for lead advocate!
- Data person!
 - To gather, understand, apply, analyze, communicate the data 😊

Standing Committee Meeting Objective #1

What first steps has the committee taken with the goal of providing products that support the six-steps in the NIST Community Resilience Planning Guide?

Are we supposed to deliver products that support the guide?

1. We do not think so. We plan to identify gaps and provide feedback to the fellows, the CoE, and the other committees
2. We are working on the National Security Council Community Resilience Indicators: mapping them to the steps of the CRPG, identifying which infrastructure sectors are considered, and adding some general comments
3. We have started the process of testing some of them for a virtual testbed
4. We are using a tool developed by DHS for buildings, to see which metrics are used, and how they are computed.

Standing Committee Meeting Objective #3

How is your committee planning to address the gaps? (i.e., What products are already being developed? What will be developed? What are your next steps?)

- Developing criteria for metadata, to understand who and how should care about the various metrics (e.g. robustness, accuracy, credibility/confidence, relevance in terms of sector & spatio-temporal scale)

GROUP C: Steps 5&6 / Tools

What first steps has the committee taken with the goal of providing products that support the six-steps in the NIST Community Resilience Planning Guide?

- We have held regular discussions on what could be useful as supplemental materials to the Guide for steps 5&6.
- We have drafted a recommendation paper for NIST and the CRPCC on including portfolio management practices into the Guide
 - Under review by the DMT Committee

- ***What are the gaps that the standing committee has identified as potential areas to contribute additional products to support communities in becoming more resilient?***
 - We listened to Molly! We need more access to users to define user needs. What are the questions that users have and need answers to for each of the steps?
 - Need to define an initial list of specs or characteristics of usable tools at the local level.
 - Identify top tools in use that meet specs.
 - Gap analysis to identify what else is needed.
 - Once out for use, need a feedback loop with users.

Standing Committee Meeting Objective #3

How is your committee planning to address the gaps? (i.e., What products are already being developed? What will be developed? What are your next steps?)

- We do not see ourselves as the creators of products/tools.
- Our goal is to influence the Federal in-house development or COEs that are doing this.
- We can help in prioritizing list of gaps for tool development.
- Keep it simple and avoiding mistakes is key.

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