



Data 101: Using Data for Planning and Development Projects

Climate Resilience Webinar Series



U.S. Department of Housing and Urban Development

Disclaimer

- This presentation is intended to provide communities and states with the tools and information to help in climate resilience planning and activities.
- Information presented in this webinar is independent of the Notice of Funding Availability (NOFA) for the National Disaster Resilience Competition (NDRC). While we expect that this information will be useful to interested communities and eligible applicants, *it should not be construed as the definitive word on any singular approach to resilience.*
- All NOFA NDRC questions should be sent to:
resilientrecovery@hud.gov

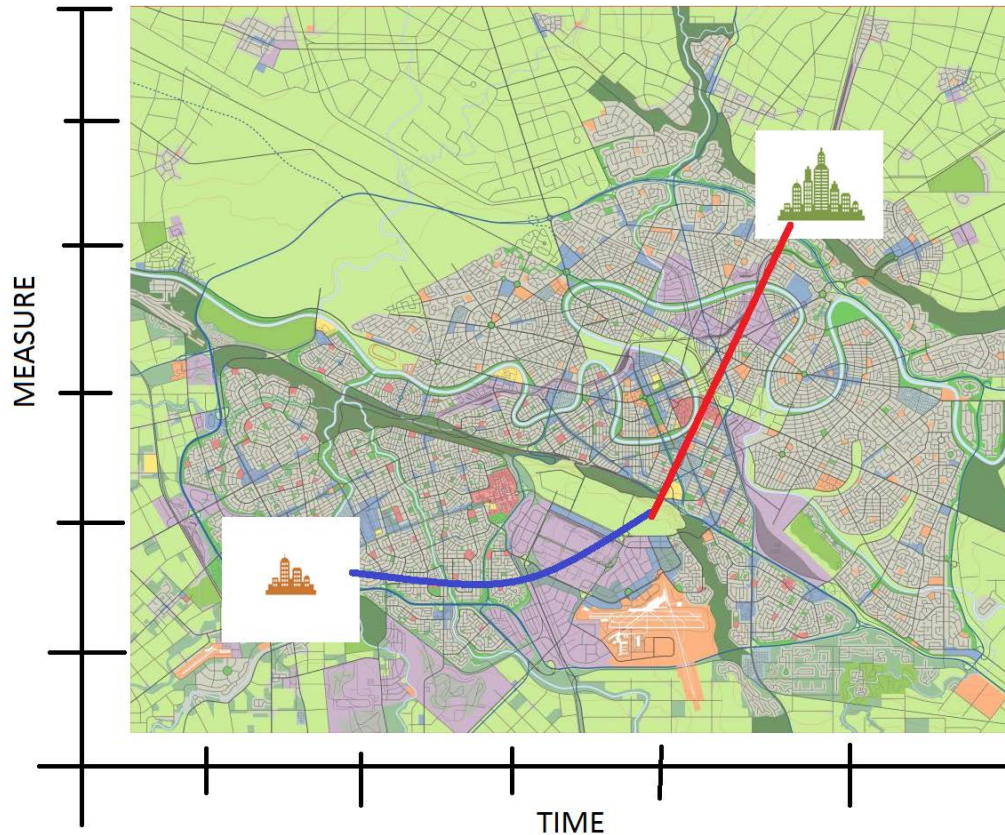


Presenters

- **Patrick Revord**
 - Program Metrics and Data Management
 - HUD Office of Economic Resilience
- **Adrian Evans-Burke**
 - Management Analyst
 - HUD Office of Strategic Planning and Management
- **Holly St. Clair, AICP**
 - Director of Data Services
 - Metropolitan Area Planning Council, Boston



Why Measure?



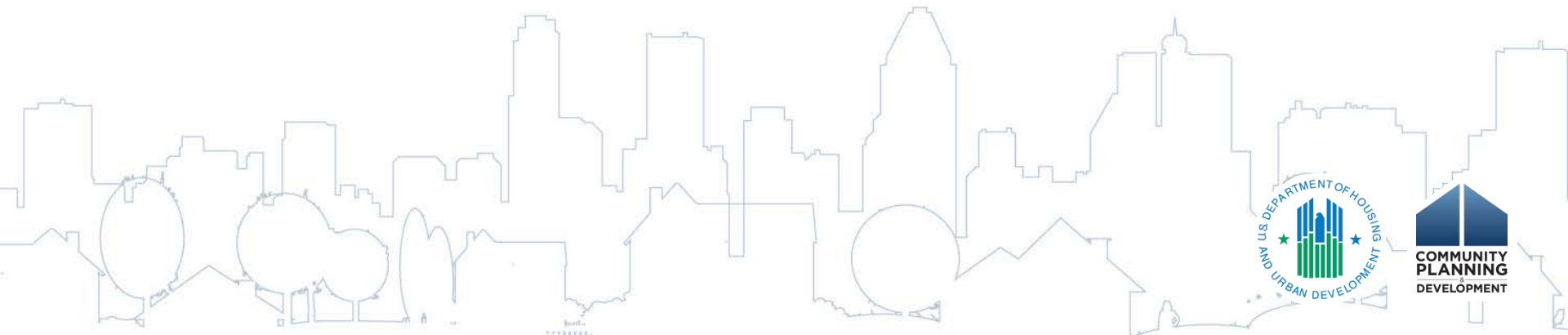
Agenda

- Why measure?
- Terminology
- Setting goals
- Using goals to define metrics
- Setting up a data management team and system
- Gathering data
- Analysis and communication



Why Measure?

- Helps focus limited resources
- Increased accountability and transparency
- Increased media coverage
- Influencing tool
- Increased public engagement
- NDRC Project



Terminology

- *“List a metric, a baseline measure, and goal outcome measure”*
- Metric – quantifiable **measure** used to track an activity over **time**
- Measure - a quantitative number or value of units
- Baseline– a known **measure** from a previous **time**, serves as a constant point to compare against
- Goal/Projection – an aspirational or anticipated **measure** at a specified future **time**
- Output or Outcome?
 - Output – what your organization does or creates
 - Outcome – what changes take place because of your organization



Terminology

- Data – the information gathered for reference and analysis
- Dataset – a group of related data
- Data Management – entering, assembling, cleaning up, or organizing data or datasets
- Data Mapping – defining the relationship between data
- Modeling – creating a mathematical model to predict future numbers, often based on a hypothesis using past numbers
- Indicator – the metric/s that best represent achieving a goal
- Data Analysis – using data to solve critical questions



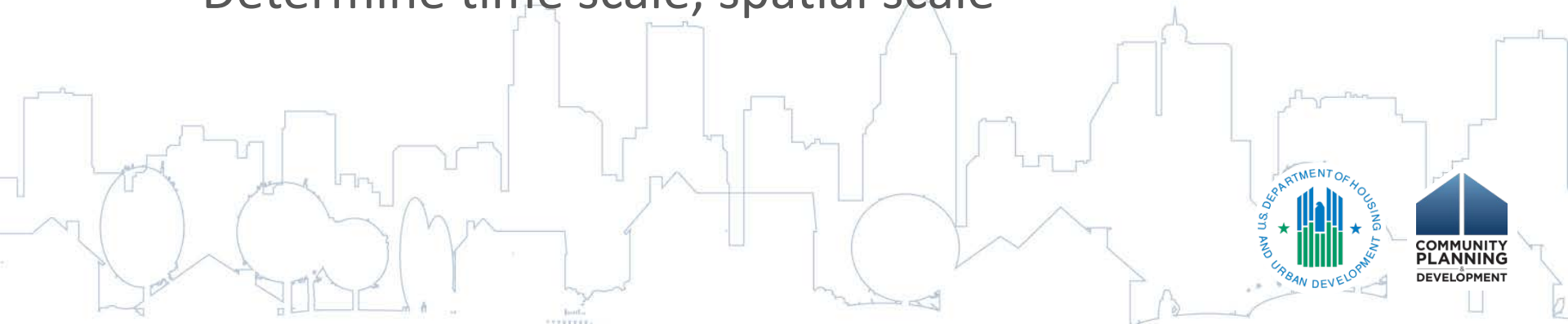
Setting Goals

- Begin with a broad vision at a long time-scale
- Break into smaller targets (specific) at smaller timescales (achievable)
- Keep all targets relevant to the vision
- Set a due date or timescale for reaching targets
 - Without a timescale, goals are weak
- Involve a wide range of stakeholders in goal-setting
 - Include members of data team, as well as those who have to carry out proposed action



Using Goals to Define Indicators

- Linking indicators to goals allows constituents to understand intent behind numbers
- The goal sets a clear intent for the metric
 - e.g. “Age of house”
- Think big, but start small
 - Better to track a smaller to set of metrics over time than to be overwhelmed by a big list
- Output metrics vs Outcome metrics
- Determine time scale, spatial scale



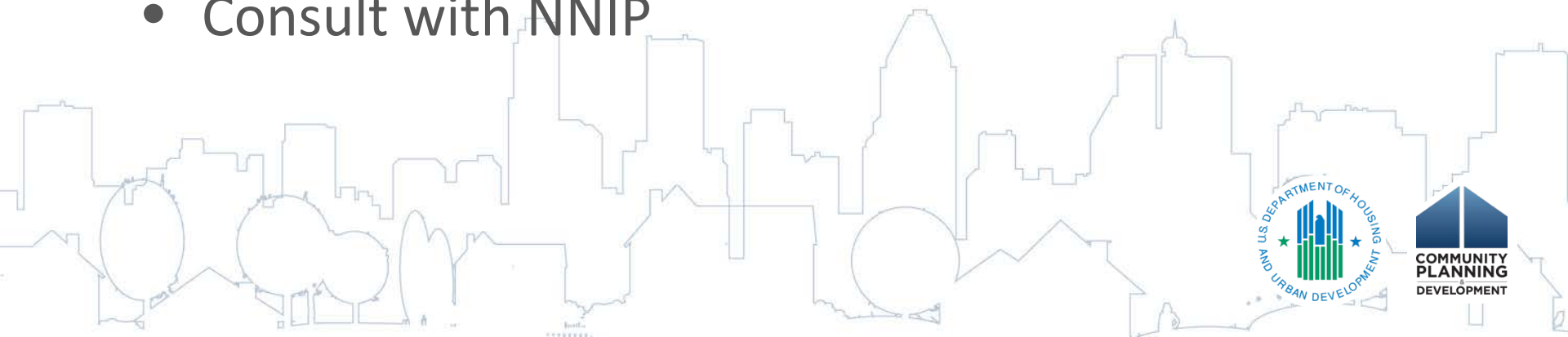
Creating a Data Management Team and System

- Develop commitment to and set aside funding for data
- Don't plan for a one-off, plan for a system
- Build a team of varying content specialties and technical specialties
 - Include someone who knows the community
- Determine strongest data format
 - Widely used? Open source?
- Establish data intake and data management protocols
 - Gold standard vs bronze standard
- Establish output and distribution channels



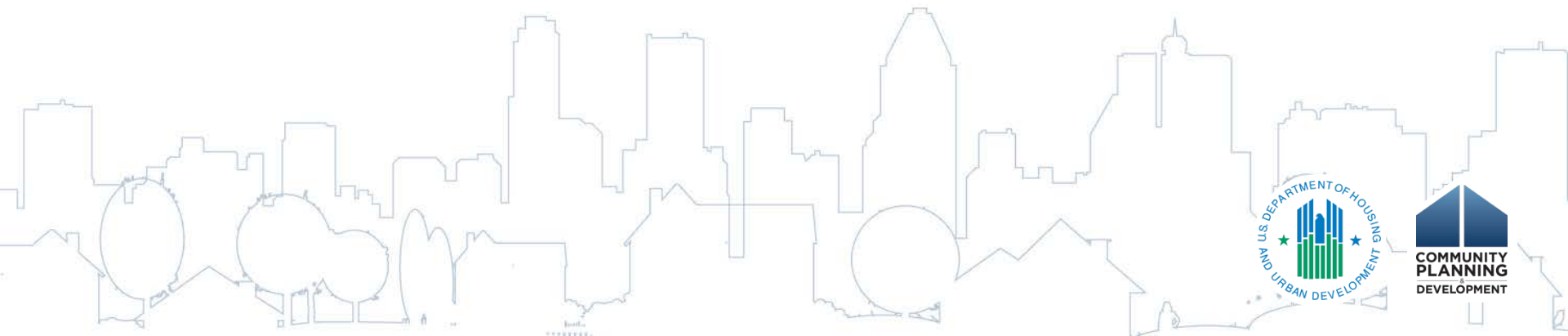
Gathering Data – Assembling Existing Public Datasets (Easy)

- National Datasets
 - Data.gov, ACS, AHS
- Local Datasets
 - 311 data, All state departments
- Determine if existing data can be a proxy for non-existent data
- Consult with NNIP



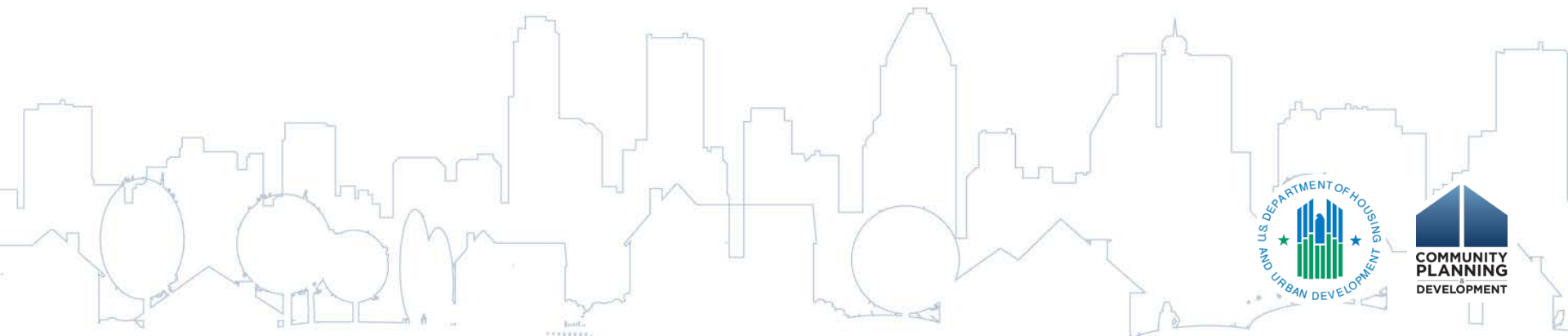
Gathering Data – Accessing Inaccessible Datasets (Harder)

- Create call for datasets – data advocacy
- Engage anchor institutions
- Include funding for private datasets
- Engage philanthropy



Gathering Data – Recording New Datasets (Hardest)

- Sensors
- Surveys
- Software
- Citizen Science



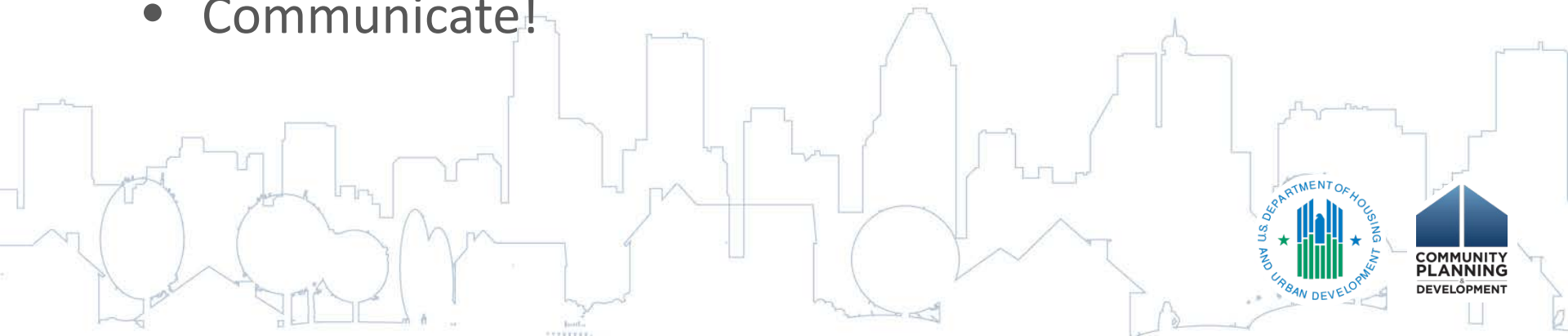
Analysis and Communication of Data

- Strong understandable analysis gets picked up by press and can change public opinion
- Decision makers are more likely to support action that comes from thoughtful analysis
- Level of communication: enough for understanding, don't overwhelm with minutia
 - Get to the big picture (without overstating)



Steps Forward

- Develop commitment to and set aside funding for data
- Determine project goals
- Translate goals into numerical indicators
- Identify staff, repository, and format
- Identify existing datasets and needed datasets
- Assemble, clean and format data, analyze
- Communicate!



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