



# Joint Puerto Rico Address Data Working Group/ Address Subcommittee Meeting

June 27, 2019

# Agenda

- **Welcome And Introductions**
- Review Action Items From Puerto Rico Address Data Working Group (PRADWG)
- PRADWG Proven Practices Report
- Address Subcommittee Business
- Workshop On Improving Puerto Rico Addresses For Federal Datasets
- Review New Action Items

# Welcome and Introductions

- If this is your first time attending, please email Karla at [karla.c.kaywork@gmail.com](mailto:karla.c.kaywork@gmail.com) so that we may capture your name and affiliation correctly.
- Attendees in the room
- Attendees on the phone

# Meeting Protocols

- Presentation Location
- Parking Lot
- All viewpoints and perspectives are welcome in this important discussion, so let's each commit to fostering a respectful and inclusive dialogue during our meeting today.

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# Action Items

## Action #: 2019 06 11-01 David Cackowski

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- Send out Proven Practices Report to PRADWG for member review and approval

## Action #: 2019 06 11-02 PRADWG Members

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- Review Report and leave feedback in survey

## Action #: 2019 06 11-03 David Cackowski

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- Send out calendar invite for PRADWG wrap-up meeting at the Executive Office Building

## Action #: 2019 06 11-04 David Cackowski

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- Send out agenda for June 27<sup>th</sup> wrap-up meeting.

## Action#:2019 06 11-05 PRADWG Meeting Attendees

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- RSVP to David Cackowski to let us know if you will be attending virtually or in person. If attending in person, please let us know if you will be bringing a guest also.

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# PRADWG Background



Disaster  
Recovery and  
Preparedness



Hurricanes  
Irma and  
Maria



Unique  
Diversity in  
Puerto Rico's  
Addressing  
System



Puerto Rico  
Address Data  
Workshop,  
Oct 2018



Puerto Rico  
Address Data  
Working  
Group

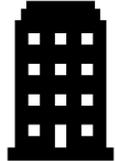
# Puerto Rico Address Types

The Census Bureau maintains five (5) different varieties of Puerto Rico addresses in an internal address inventory, called the Master Address File, or MAF. Each of these addresses is residential in nature, either for a single or multi-family structure, an institutional or group quarters facility, or military housing.



## General

1234 Calle Juan Doe  
San Juan, PR 00926



## Apartment Complex

8 Vista Suites APT 8910  
San Juan, PR 00926



## Other

Highway Contract  
Rural Route  
P.O. Box



## Urbanización

Urb Smith  
567 Calle A  
San Juan, PR 00926

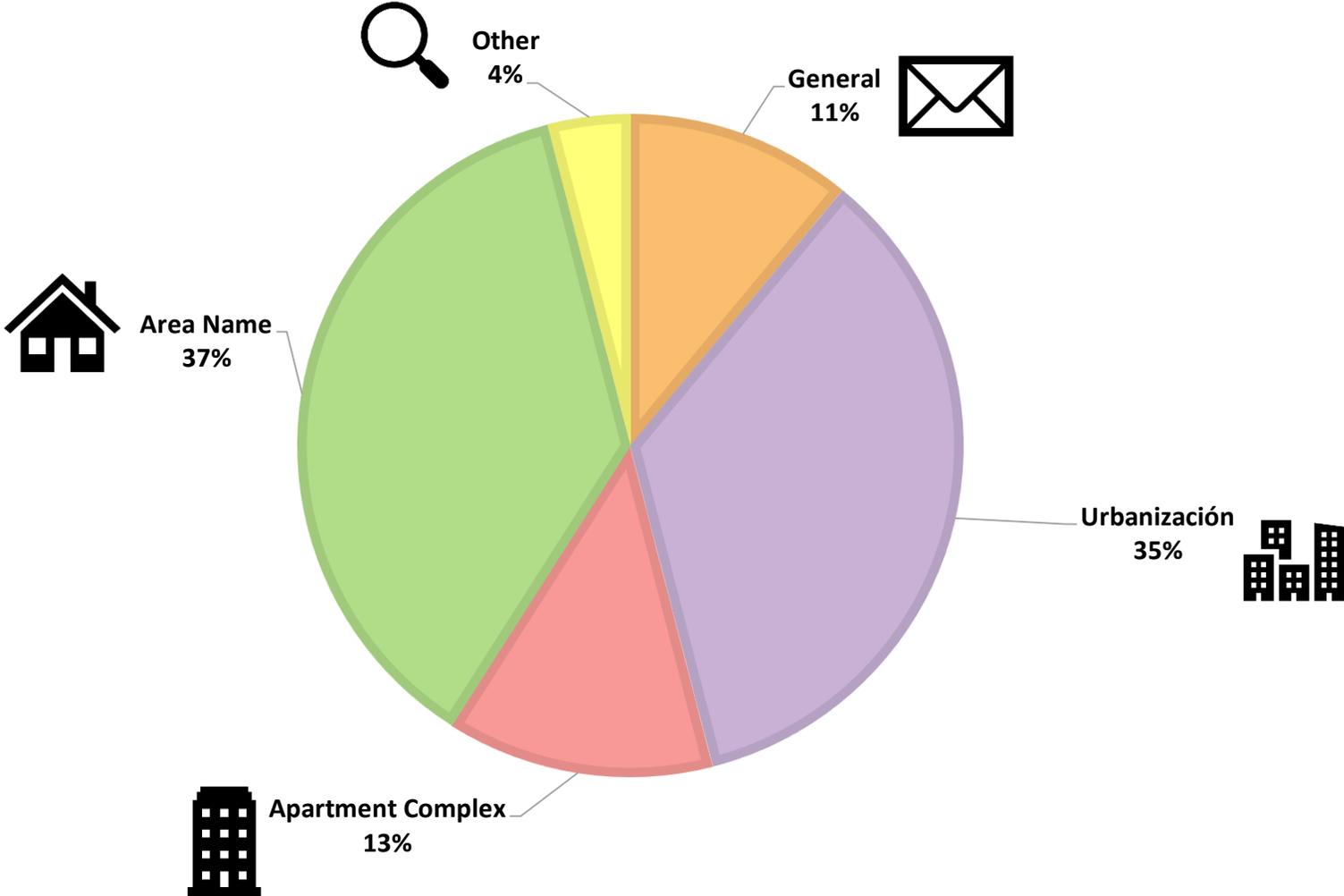


## Area Name

Barrio Juan Sectore Smith  
Carretera 12  
San Juan, PR 00926

*NOTE: These examples are fictional addresses that are not protected from disclosure by the Data Stewardship and Confidentiality requirements of 13 U.S.C. §9.*

# Puerto Rico Address Profile – Census Bureau



# PRADWG Purpose

Promote agency collaboration, transparency, and strategic prioritization in the federal address collection and management process for Puerto Rico

Document use cases representing the various agency requirements for collecting and maintaining Puerto Rico address data

Align with the goals of the FGDC Address Theme and Subcommittee to contribute to the National Geospatial Data Infrastructure (NSDI).

# Participation



FEMA



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# Proven Practices

Summary of Responses:

| Agency        | a. Use Data As Is | b. Custom Tools and Open Source Data | c. Third Party Data or Services |
|---------------|-------------------|--------------------------------------|---------------------------------|
| HUD           | x                 |                                      | x                               |
| FEMA          | x                 |                                      |                                 |
| USACE         | x                 | x                                    | x                               |
| Census Bureau |                   | x                                    |                                 |
| USDA          |                   | x                                    | x                               |
| USPS          |                   | x                                    |                                 |

Use Data As Is

Custom Tools & Processes

Third Party Data or Services

Examples of Successes

# Top Three Proven Practices

Recognizing the differences in Puerto Rico addresses and accounting for them in the data model (e.g., adding urbanizacion name field)

Standardizing and cleaning the data whether through manual or automated methods

Validating the data through fieldwork or a source such as the US Postal Service.

## Recommendations

Recommend that all federal agency Puerto Rico address data stakeholders consider adopting one or more of the proven practices identified in this report, especially the top three proven practices

Request that federal agencies publish their proven address data practices, tools, and procedures to an open platform

Recommend a Phase II for the PRADWG to document federal agency requirements for Puerto Rico address data.

# Appendix 1-6: Proven Practices

Appendix 1: Housing and Urban Development

Appendix 2: Federal Emergency Management Agency

Appendix 3: U.S. Army Corps of Engineers

Appendix 4: U.S. Census Bureau

Appendix 4: U.S. Department of Agriculture

Appendix 6: U.S. Postal Service

# Appendix 7: Address Data Resources

## Federal Geographic Data Committee (FGDC)

- [FGDC](#)
- [Address Subcommittee GeoPlatform Community Site](#)

## Open Data Ecosystem for Puerto Rico Address Data

- [Openaddress.io](#)
  - [Detailed Report](#)
- [Puerto Rico Open Data Interconnection Portal](#)
- [OpenStreetMap](#)
- [USA Structures Database \(PR data to be released in 2019\)](#)

## Sharing Procedures and Tools

- [The Opportunity Project](#)
- [U.S. Data Federation](#)
  - [GitHub](#)

## Address Standards

- [The National Address Database \(NAD\)](#)
- [Civic Location Data eXchange Format \(CLDXF\)](#)
- [United States Thoroughfare, Landmark, and Postal Address Data](#)

## Census Bureau

- [Puerto Rico Address Guidelines](#)

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# Address Subcommittee Business

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- Update on the National Address Database (NAD) – Dave Cackowski
- Open Geospatial Consortium (OGC) Disasters Interoperability Pilots
- Address Theme Strategic Plan – Lynda Liptrap
- Address Standards Templates for Puerto Rico Address Data – Lynda Liptrap
- Address Content Subgroup – Dave Cackowski

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# Update on the NAD

# Texas Parsing

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- Used an open source address parsing script hosted on GitHub developed by DataMade and the University of Sussex
  - <https://github.com/datamade/usaddress>
- Parsing was done in 100,000 feature blocks to minimize rework due to parsing errors
- Base code was turned into a script to minimize the parsing translation from the native format to the NAD schema

# Texas Parsing – Part 2

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- Of the 9.3 million points, only 315 weren't run through the parser due to missing data
- Lots of hours expended on this effort, resulting in 7.3 million records successfully parsed
- A report was generated and supplied to Texas in late May, but it's unlikely any corrections will be made in the short term
- The 7.3 million points will be added to the NAD and included in the next release

# Wisconsin - Status

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- ETL and QA complete
- Of the 2.1 million points, 1.4 million are ready for the NAD
- Of the remaining points, about 300,000 were flagged as duplicates and about 400,000 having missing or incorrect address numbers.
- Report was submitted to Wisconsin in early May
- The remaining 1.4 million had no errors and will be added to the NAD and included in the next release

# New Partner – Wyoming

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- No statewide address program, but WYGEO is helping to gather county data
- To date, 3 of the 24 Wyoming counties have agreed to provide data (~44,000 address points)
- Another 3 counties have parcel layers that could be turned into addresses
- Outreach continues

# Existing Partners

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- New Jersey and Ohio are still unable to provide updates
- Prioritizing updates from other partners by vintage of their NAD data
- Received update from New Mexico in April
- Received updates from New York/New York City and Montana last week
- Expect to receive updates from Arizona, Colorado, Delaware, Massachusetts, and Virginia over the next few weeks

# Changing Status – Kansas

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- Formerly in the “Not in the Public Domain” category
- Based on discussions with USDOT about the NAD, the Kansas GIO spent the last year lobbying the county data providers to grant permission to include their data in the NAD
- Of the 105 counties, 76 have agreed to release their data
- Expect a Kansas submission soon.

# NAD V2 Available for Download

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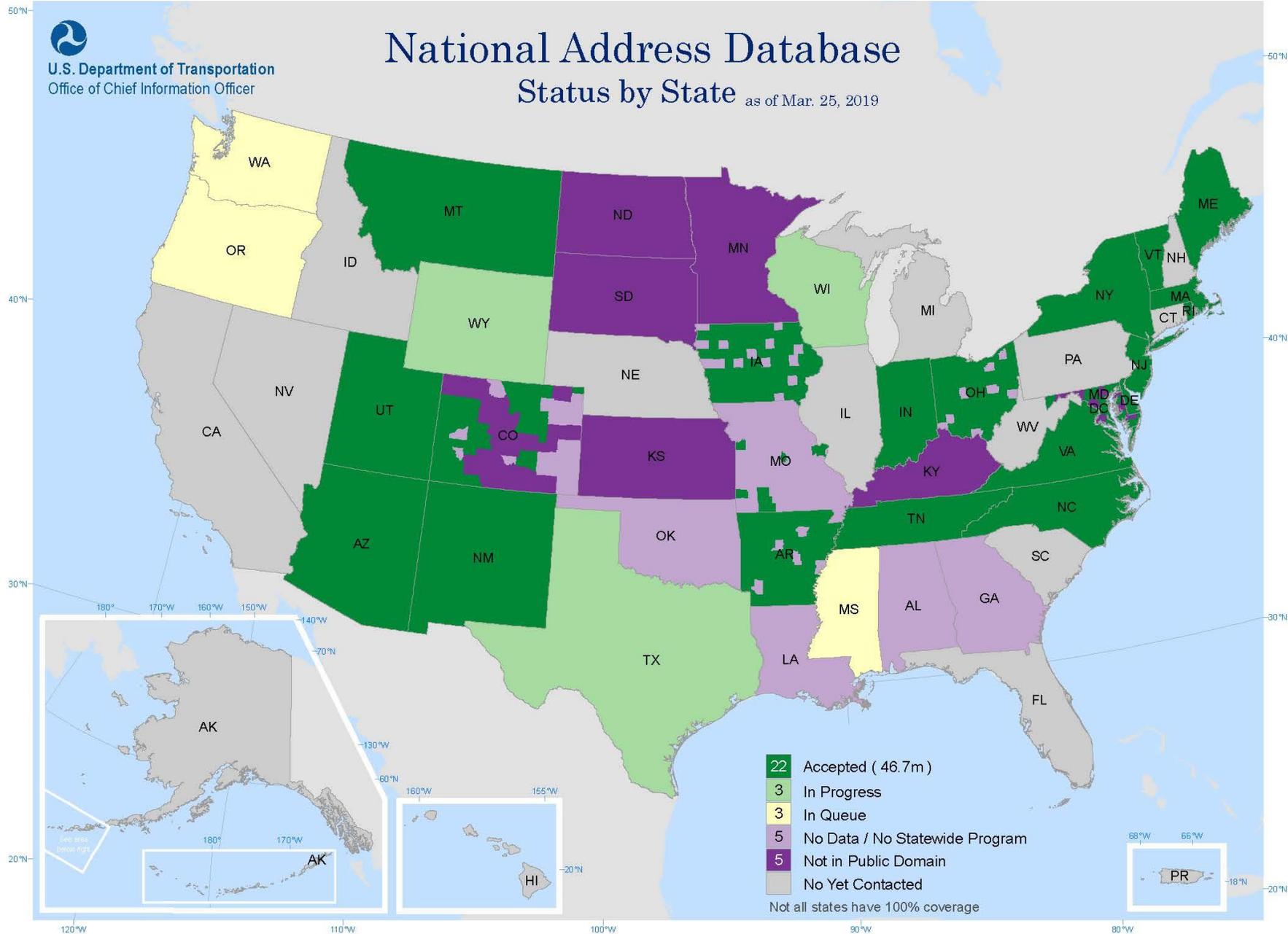
- A second release of the NAD was made available in early May
- File geodatabase and flat ASCII formats
  - [https://s3.amazonaws.com/nationaladdressdata/NAD\\_r2\\_WithMetadata.zip](https://s3.amazonaws.com/nationaladdressdata/NAD_r2_WithMetadata.zip)
  - [https://s3.amazonaws.com/nationaladdressdata/NAD\\_r2\\_ASCIIWithMetadata.zip](https://s3.amazonaws.com/nationaladdressdata/NAD_r2_ASCIIWithMetadata.zip)
- Almost 47 million points
- Includes basic metadata
- Also available from the DOT website
  - [www.transportation.gov/nad](http://www.transportation.gov/nad)
- Hope to do quarterly releases



U.S. Department of Transportation  
Office of Chief Information Officer

# National Address Database Status by State

as of Mar. 25, 2019



# Open Geospatial Consortium Disasters Interoperability Study

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- Pilot studies to develop processes for using technologies and data in response to, and planning for disasters
  - National Geospatial Data Assets to be used in pilots
    - NAD
    - Census Bureau's boundary and road data

# Address Theme Strategic Plan

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- Draft Plan is in development
  - To cover short time period until new National Spatial Data Infrastructure (NSDI) is developed
- To be followed by an Implementation Plan

# Address Standards Templates for Puerto Rico Address Data

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- Develop examples of various types of Puerto Rico address data in three formats
  - The FGDC Standard
  - The National Emergency Number Association US Civic Location Data Exchange Format (NENA CLDXF)
  - The NAD Schema
- Census Bureau provides fictitious but representative address examples
- Vetted by standards sponsors

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# Address Content Subgroup

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- Scope - identify minimum address content and other possible tiers of desired or optimum content in the NAD
- Report at next Subcommittee Meeting
- Report will include:
  - Address classes to include and exclude
  - Which address attributes are:
    - Mandatory
    - Conditional
    - Optional
    - Excluded

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An aerial photograph of a coastal city, likely San Juan, Puerto Rico. In the foreground, a large, multi-tiered stone fortification sits on a cliff overlooking the ocean. The city extends inland from the coast, with numerous buildings and a harbor area visible. The sky is blue with some light clouds. The text "Workshop On Improving Puerto Rico Addresses For Federal Datasets" is overlaid in white, bold font across the center of the image.

# Workshop On Improving Puerto Rico Addresses For Federal Datasets

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# Contact Information

**For more information about the  
PR Address Data Working Group:**

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FGDC Address Subcommittee:**

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**For more information about the  
Census Bureau's management of  
Puerto Rico address data:**

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**Address Subcommittee**

**Thank You!**