Situation Assessment

Bicycle, Pedestrian, and Accessibility Infrastructure Data

U.S. Department of Transportation
Office of the Secretary of Transportation

Bureau of Transportation Statistics

FGDC.GOV
FEDERAL GEOGRAPHIC DATA COMMITTEE

Housekeeping Items

- **This meeting will be recorded.**
- Please stay muted to reduce background noise. If you would like to speak or ask a question, please raise your hand and unmute when acknowledged.
- Please type your affiliation in the chat.
- Type any questions you have into the chat. There will be several Q&A periods that will occur throughout the meeting today.
- Slides and recording will be available within a week at: https://github.com/dotbts/BPA#working-group

Agenda

Welcome	Derald Dudley	10 minutes
Context and Drivers for a Bicycle, Pedestrian, and Accessibility Infrastructure Data Working Group	Cyrus Chimento	15 minutes
Context and Drivers Q&A	Full group	5 minutes
Introductions	Small group breakout rooms	10 minutes
Discussion | Collaboration Purpose (**plus, a quick break in the middle!**)	Full group	50 minutes
Next Steps	Derald Dudley	10 minutes
General Q&A	Full group	15 minutes
Conclusion	Derald Dudley	5 minutes

Welcome

Derald Dudley

Meet Your Facilitators

Derald Dudley

Geographer, Bureau of Transportation Statistics (BTS)

FGDC Transportation Theme Lead & Transportation Subcommittee Chair

Collaborative Data Specification Development

FGDC Standards Task Team, WZDx, TDx, MobilityData & GTFS, Federal Trails Schema

Meet Your Facilitators

BTS' Office of Spatial Analysis and Visualization (OSAV)

Justyna Goworowska

- Spatial Data Analyst
- Public transit, active transportation, geo data

Cyrus Chimento

- ORISE Fellow
- Active transportation and GIS

Jay Davis

- Presidential Innovation Fellow
- Equity

Grace Bowen

- ORISE Fellow
- Geospatial analysis

A Word on Principled Engagement

A framework for navigating the complexities of human interaction with integrity and purpose.

We interact with each other according set of principles.

The Principles

- Ethical Conduct
- Respect for Others
- Collaboration and Cooperation
- Social Responsibility
- Long-Term Perspective
- Adaptability and Learning
- Communication
- Conflict Resolution
- Personal and Organizational Development

A Word on Successful Collaborations

- Success come from the “front-line workers”, the people closest to the data.
- We are here to facilitate a conversation and evoke your needs and desires.
- We are not here to establish an implied hierarchy with the Federal government at the top.
- We are here to establish a true collaboration that shares power.
- "Power With" not "Power Over"

Purpose

1. Gauge interest in collaboration on bike, pedestrian, and accessibility data.
2. Discuss potential strategic direction of the collaboration.
3. Communicate next steps.

Working Definitions

Cyrus Chimento

Working Definitions

- **Bicycle infrastructure |** The physical structures that facilitate bicycling on or off the roadway and that make up a bicycling infrastructure network.

- **Pedestrian infrastructure |** The physical structures that facilitate walking (or travel using adaptive mobility devices) on or off the roadway and that make up a pedestrian infrastructure network.

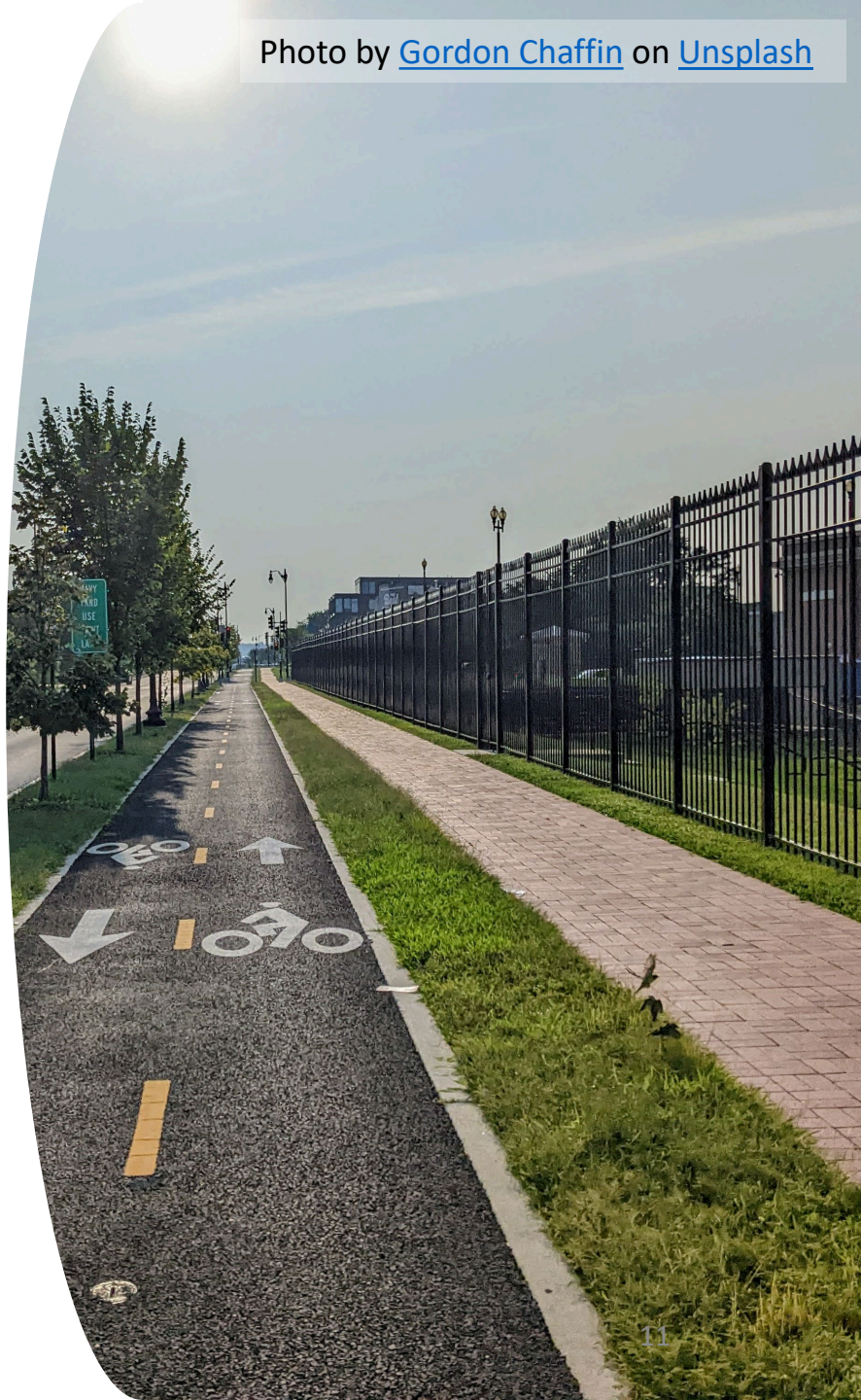


Photo by Gordon Chaffin on Unsplash

Working Definitions

- **Accessibility Infrastructure |** The physical structures that address access to sidewalks and streets, crosswalks, curb ramps, pedestrian signals, on-street parking, transportation terminals (e.g., rail stations, airports) and other components of public right-of-way for people with disabilities.

Working Definitions

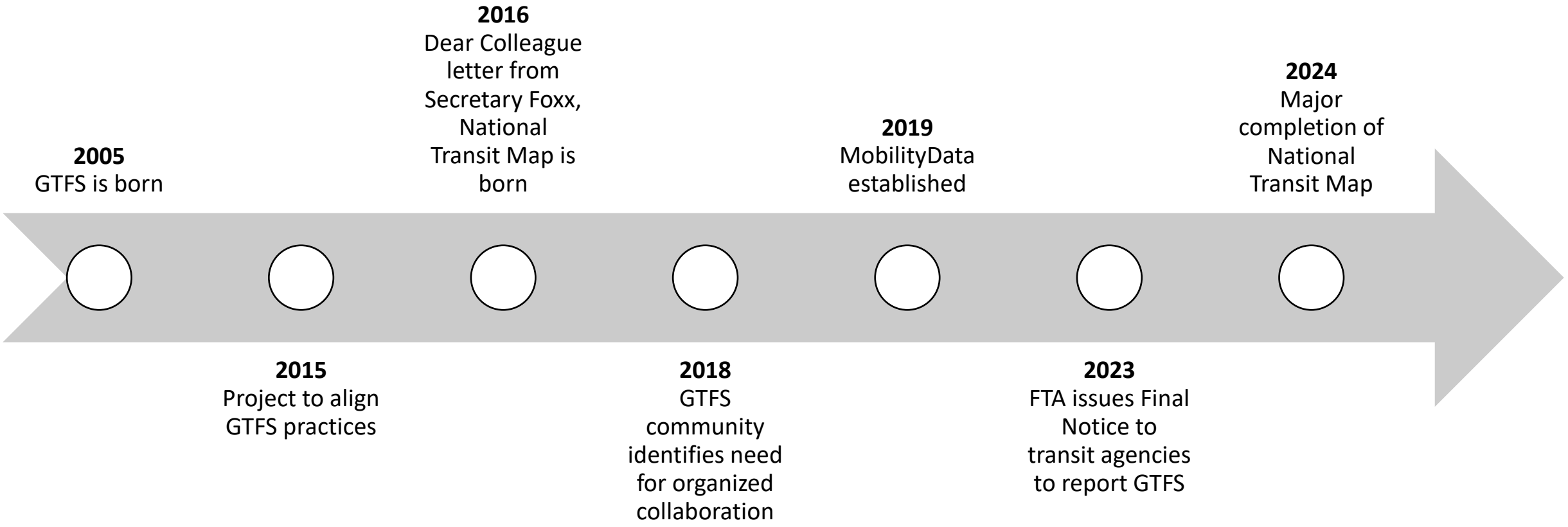
- **Bicycle, Pedestrian, and Accessibility Infrastructure Data |** The *digital representations* of bike, pedestrian, and accessibility infrastructure that can support a variety of use cases, including but not limited to:
  - Navigation
  - Research
  - Planning
  - Asset Management
  - Policy Decisions
  - Fiscal Decisions

Greater Philadelphia Pedestrian Portal, DVRPC

Context and Drivers

Cyrus Chimento

Brief History



Data Gap

1. No data available
2. Closed or use-restricted
3. Geographically or logically fragmented
4. Unstandardized format, structure, and content
5. Inadequately representative

Photo by LOGAN WEAVER | @LGNWVR on Unsplash

Technological Change

- Crowdsourcing
- Computer vision
  - Satellite/aerial imagery
  - Street-level imagery
  - LiDAR

Photo by Scott Blake on Unsplash

Opportunity for Impact

Data Gap

Lack of data on bike, pedestrian, and accessibility infrastructure.

Barriers

Barriers to using, researching, prioritizing, and improving infrastructure and condition.

Low Mode Share

Few trips can be comfortably and safely made by walking, biking, or rolling.

Societal costs

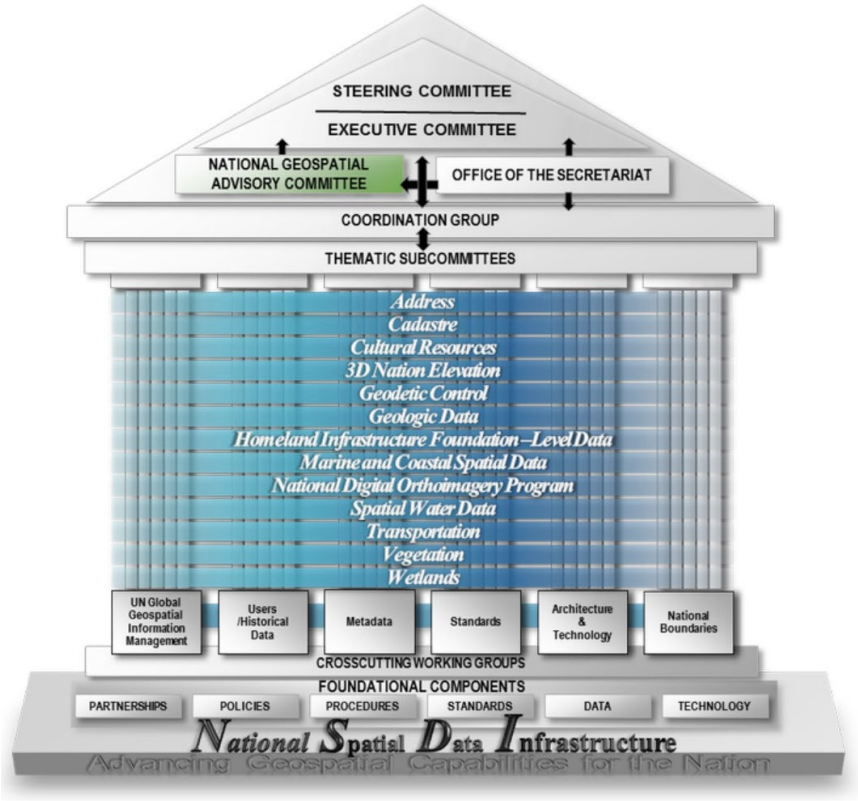
Safety, public health, equity, climate, and economic costs.

New Funding and Focus

- FHWA Complete Streets Report to Congress
  - "Incomplete pedestrian and bicycle network data may limit opportunities to deploy Complete Streets."
- Safe Streets and Roads for All (SS4A) Program
  - "Implementing standard and novel data collection and analysis technologies and strategies to better understand vulnerable road user (pedestrian/bicycle/transit rider) network gaps and to collect exposure data."
- Disability Policy Priorities
  - “Address Gaps in Data on People with Disabilities to Inform Policymaking”
  - “Create National Transportation Atlas Database layers for walking networks and accessible facilities."

Federal Geographic Data Committee (FGDC)

- Structure of Federal geospatial stakeholders that provide direction and oversight for geospatial decisions and initiatives across the Federal government.
- 34 data themes of national significance.
- Thematic subcommittees for 9 of the data themes.
- Federal agencies have responsibility for, and lead, the thematic subcommittees.



Overview of the structure of various components of FGDC. (FGDC)

Geospatial Transportation Subcommittee

- Facilitates partnerships, coordinates efforts, and heightens awareness among the geospatial-transportation community.
- Promotes best practices and develops transportation standards to improve data quality, accessibility, exchange, and interoperability.

What does a working group look like?

- Federal Trail GIS Schema (FTGS) Working Group
  - More info: https://ngda-transportation-geoplatform.hub.arcgis.com/pages/federal-trails-working-group
  - Specification: https://geoplatform.maps.arcgis.com/home/item.html?id=d70608f5ae524f759c61d8c366589b61

- Work Zone Data Exchange (WZDx) Working Group
  - More info: https://www.transportation.gov/av/data/wzdx
  - Specification: https://github.com/usdot-jpo-ode/wzdx/tree/main

Bureau of Transportation Statistics (BTS)

- Provide timely, accurate, credible information on the U.S. transportation system, the movement of people and goods, and the consequences of transportation for the economy, society and the environment.

- National Transportation Atlas Database (NTAD)

geodata.bts.gov

What is our goal?

- National geospatial data layers
  - For the extent, connectivity, and condition of bicycle, pedestrian, and accessibility infrastructure
  - In the public right-of-way and in transportation terminals

Photo by James Lewis on Unsplash

What is our approach?

1. Discover what geospatial data is available on bicycle, pedestrian, and accessibility infrastructure
2. Establish partnerships to build mutually beneficial access to data
3. Define requirements for the data structure and minimum content
4. Facilitate data collection with partners
5. Aggregate and publish data

Introductions

Cyrus Chimento

5-minute Breakout Rooms

- Name
- Role
- Affiliation
- What is one challenge you've faced with bike, pedestrian, or accessibility infrastructure data?

Situation Assessment

Derald Dudley

Discussion 1 | Collaboration Purpose

- We are using a Jamboard (link is in the chat window):

https://jamboard.google.com/d/1-YWVNkDgVwT3PqTuE2T6Qily6OfprCNiHP1zfymYZxY

- You can contribute in multiple ways:
  - Verbal – Raise your hand and unmute when acknowledged
  - Chat – Type your thoughts into the meeting chat, and we will add it to the whiteboard.
  - Jamboard – Add your comments directly.

Break – Please return by 2:07pm ET.

Discussion 2 | Collaboration Purpose

- We are using a Jamboard (link is in the chat window):

https://jamboard.google.com/d/1-YWVNkDgVwT3PqTuE2T6Qily6OfprCNiHP1zfymYZxY

- You can contribute in multiple ways:
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  - Jamboard – Add your comments directly.

What happens now?

Derald Dudley

Next Steps

- Compile and share notes and recording

- Share findings with the community
  - Are there common uncertainties?
  - Are there shared motivations?
  - Are there interdependencies?
  - Are there consequential incentives?

- Collective determination – what should the next meeting look like?
  - Schedule next meeting in the second half of January.

Why GitHub?

- USDOT, other Federal agencies, and other organizations successfully use it for collaborative governance, because it has several important features:

  - Office software agnostic
  - Transparent
  - Built for digital collaboration and contribution
  - Tracks project history

Q & A

Cyrus Chimento

Conclusion

Derald Dudley

Thank you!

Keep tabs on the project and contribute on GitHub:

https://github.com/dotbts/BPA

Contact Cyrus Chimento (cyrus.chimento.ctr@dot.gov) to make sure you're on the email list (or to remove yourself from the list).