

National Capital Region | Transportation Planning Board

Intercity Bus and Rail Travel Study Web Map

TPB Regional Public Transportation Subcommittee

January 28, 2025



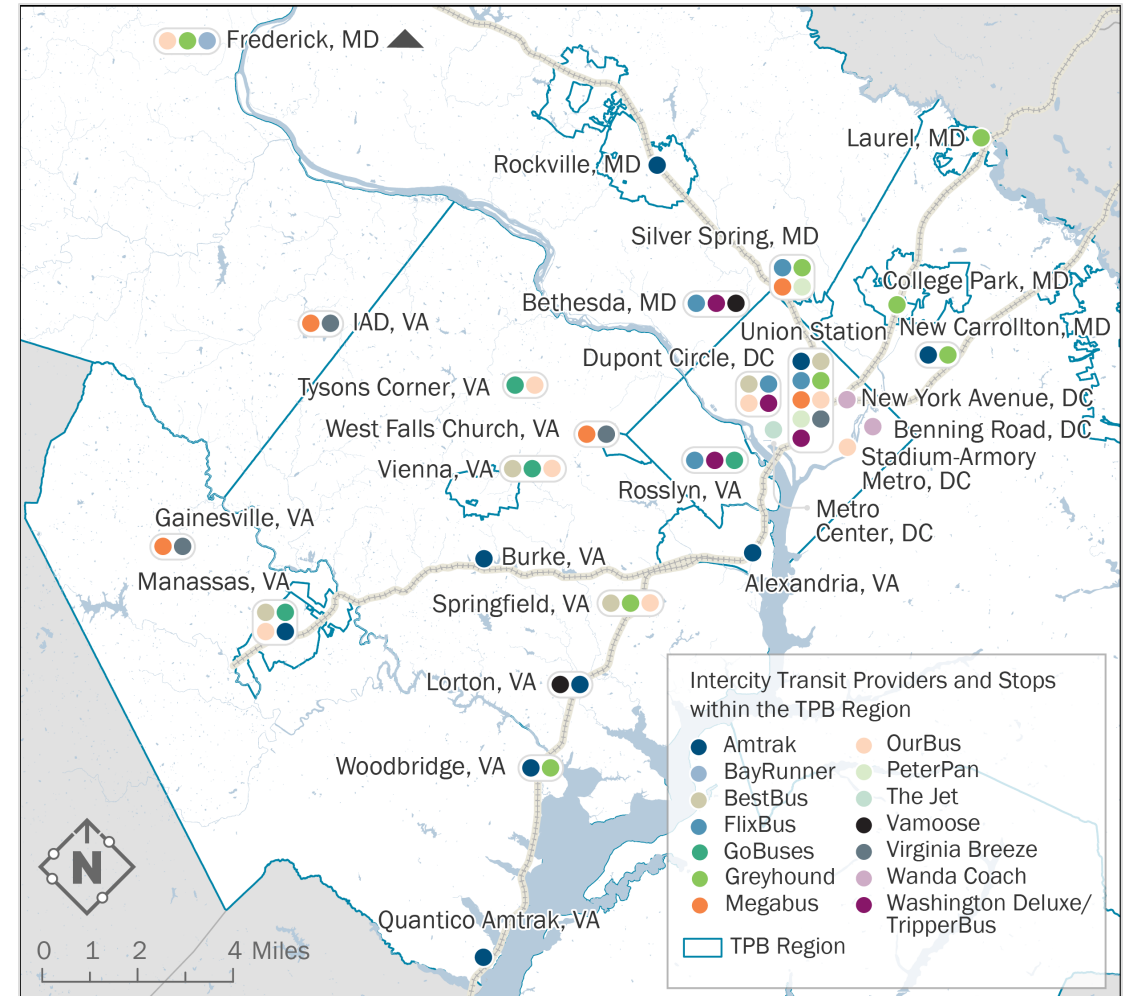
Prepared by:

Foursquare
ITP



Overview

- The Study
- Our Approach to the Inventory
- The Web Map



The Study

- This study **expands on the previous work** done by TPB in 2016 and 2023 to gain a more **comprehensive** and **up-to-date assessment of intercity travel services** and patterns.
- We combined **desk research, analysis of big data sources,** and **intercept survey**.
- We compiled a **comprehensive inventory of** intercity (and select commuter) **services** and advanced in understanding riders' sociodemographic information.
- The web map summarizes much of that information.

Our Approach to the Service Inventory

Data Collection

- **Sources:** Desk research, provider engagement, and publicly available GTFS data.
- **Scope:** Intercity and commuter rail and bus.
- **Formats:** GTFS feeds (a standard for transit schedule data) and provider websites were the primary sources.

Analysis Method

- **GTFS Data:** Summarized schedules for stops within the TPB region using R codes.
- **Manual Collection:** For providers without GTFS feeds, data was gathered from websites between April 15–21, 2024.

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Service Data Collection Challenges

- Trip planners are not timetables
- Reconciling stops between providers
- Identifying all stops on a non-GTFS trip
- GTFS don't all cover the same period
 - Large feeds to cover and analyze

➤ **Amtrak: 300+ service_ids**

☒ ONE WAY ☐ ROUND TRIP ☐ MULTIPASS

Sign In | Create an Account | Find Boarding Pass

Departing ...

Going to...

Depart Dates
05/28/2024

Passenger(s)
1 Passenger

SEARCH →

Schedule PPB 8621
10:00 AM
PABT | New York
New York (P.A.B.T.)
40-42 Street & 625 8th Avenue
New York, NY 10018

Schedule PPB 8621
2:30 PM
DC | Washington
Washington
50 Massachusetts Ave NE
Washington, DC 20002

\$36.00

BOOK NOW →

HIDE DETAILS ^

4h 30m

0 transfers

Details

PABT | New York
New York (P.A.B.T.)
40-42 Street & 625 8th Avenue
New York, NY 10018
Depart: 10:00 AM

Baltimore, MD
Arrive: 1:20 PM Depart: 1:30 PM

DC | Washington
Washington
50 Massachusetts Ave NE
Washington, DC 20002
Arrive: 2:30 PM

PPB 8621

Itinerary - Please note that all times displayed are in local time

Overcoming Challenges

All providers

- Select a common period
- Sample week – week of manual collection
- Limit analysis to specific period, acknowledge limitations frequently

GTFS providers only

- Limit to common time period
- Filter GTFS to study area to simplify data
 - Stops in region > stop_times in region > trips in region > calendar

Limitations for each data set

All providers

- Only one specific date range
- Service for providers may change
- Limited stop observability
- Providers w/o GTFS tend to be smaller, fewer trips

GTFS providers only

- Feeds go into 2025 in some cases, but may not actually reflect future service
- Providers upload new feeds over time

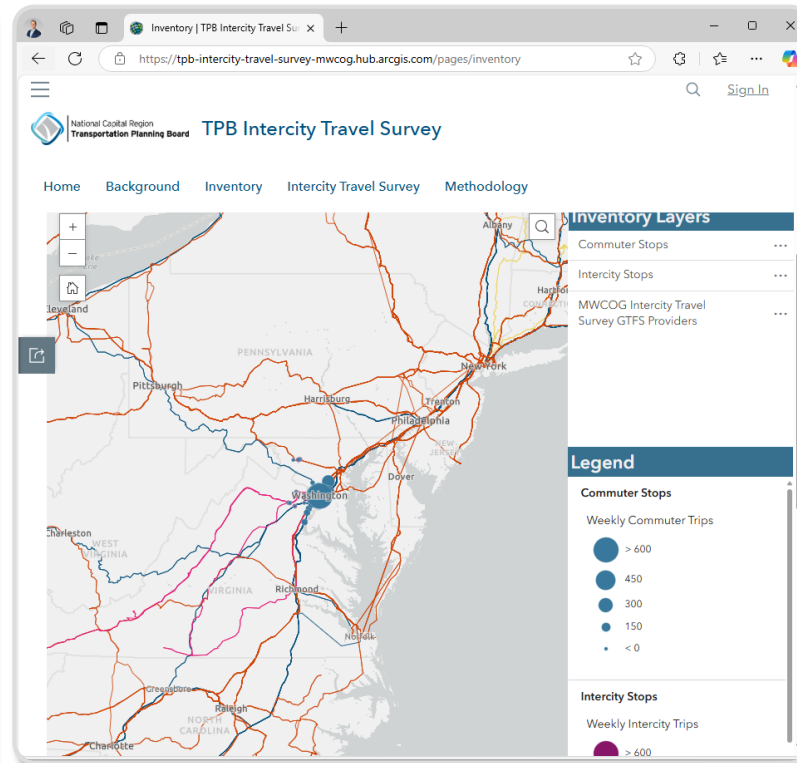
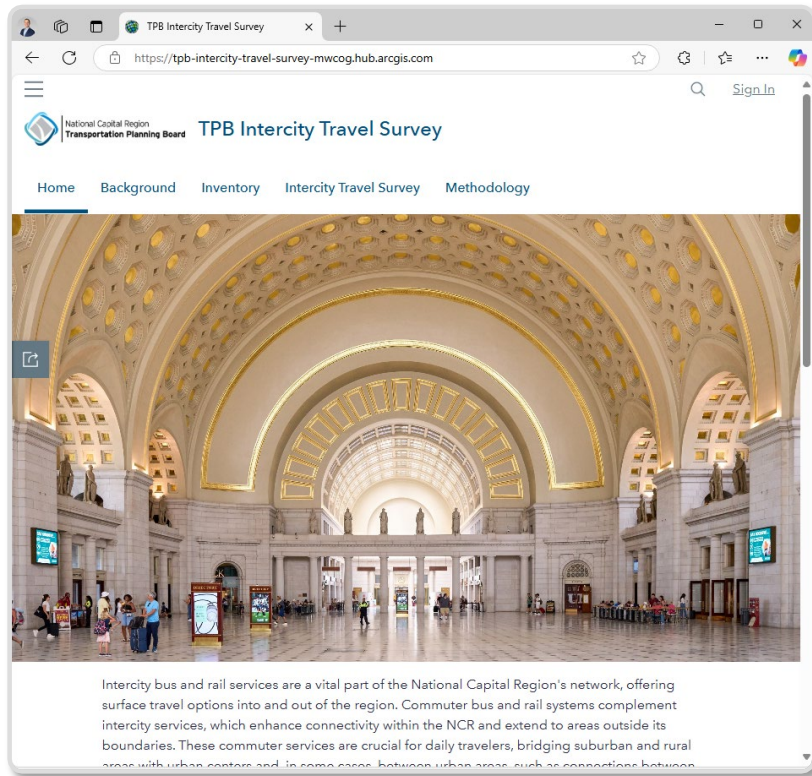
Using the Data

- Summary table of trip with origin-destination, by provider
 - Some O/D very detailed like street address -> collapse to city
- Times for trip on each day of week
 - Not always M-F/Sa/Su, like local or commuter transit; these calendar.txt are complex!

MWCOG Stop ID	Stop/Station Within MWCOG	Provider	Direction	Route_Origin	Route_Destination	Monday Trip
14	Gainesville Park and Ride	VirginiaBreeze	0	Danville Transit System Hub	DC Union Station	12:45
43	Dulles Airport	VirginiaBreeze	0	Danville Transit System Hub	DC Union Station	13:15
39	DC Union Station	VirginiaBreeze	0	Danville Transit System Hub	DC Union Station	14:00
39	DC Union Station	VirginiaBreeze	1	DC Union Station	Danville Transit System Hub	10:05
43	Dulles Airport	VirginiaBreeze	1	DC Union Station	Danville Transit System Hub	10:50
14	Gainesville Park and Ride	VirginiaBreeze	1	DC Union Station	Danville Transit System Hub	11:20
43	Dulles Airport	VirginiaBreeze	0	Alumni Mall at Squires Student Center	DC Union Station	13:05

The Web Map

Intercity Travel Survey | TPB Intercity Travel Survey





Thank you!

Learn more at **FoursquareITP.com**



Reinaldo Germano

Project Manager & Senior Transportation Planner

rgermano@foursquareitp.com

301.917.3574



Sophia Nelson

Transportation Planner

snelson@foursquareitp.com

301.276.7564