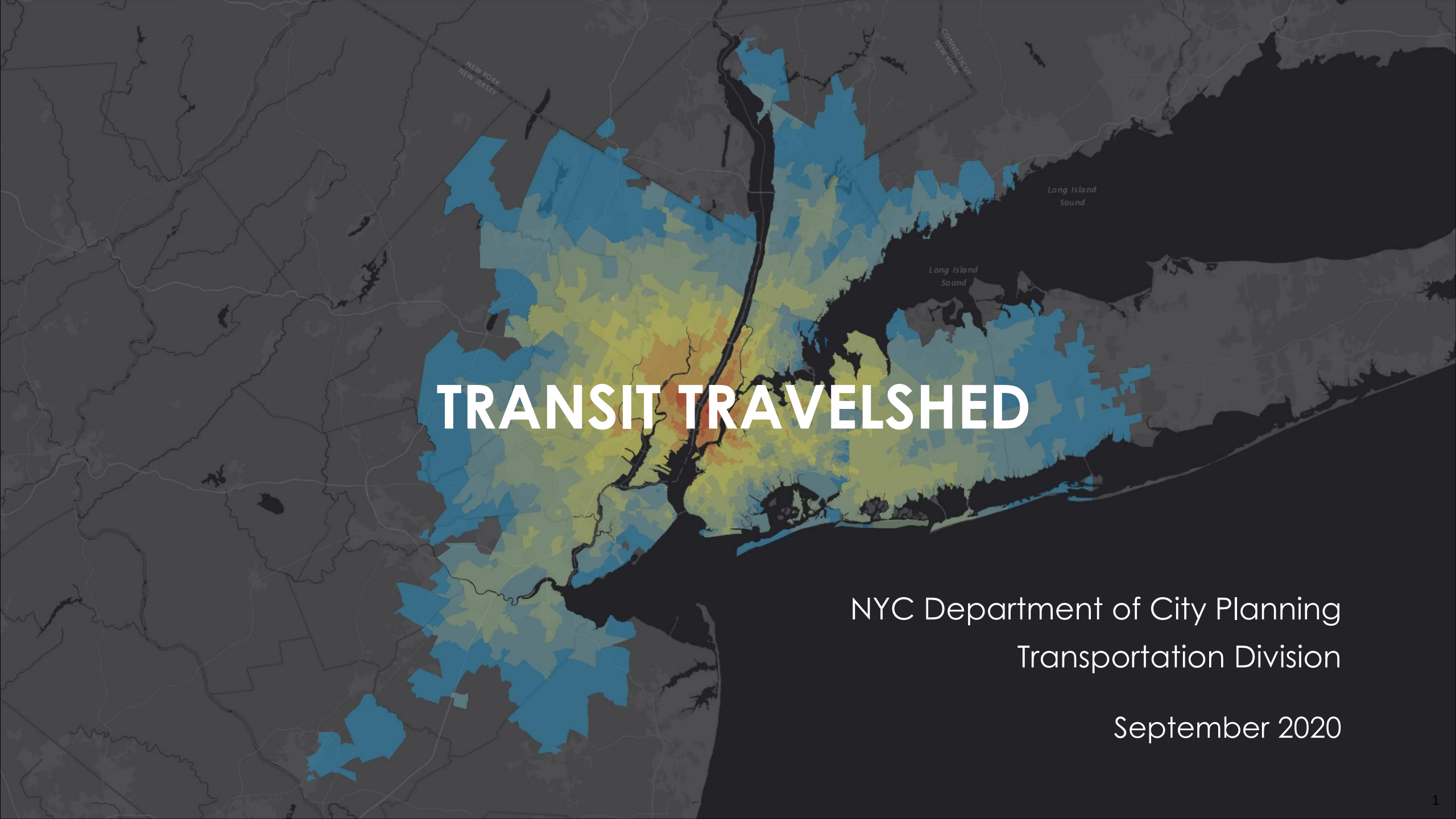


TRANSIT TRAVELSHED

NYC Department of City Planning
Transportation Division

September 2020

Transit Travelshed Models

Trip Routing and Travelshed Tool:

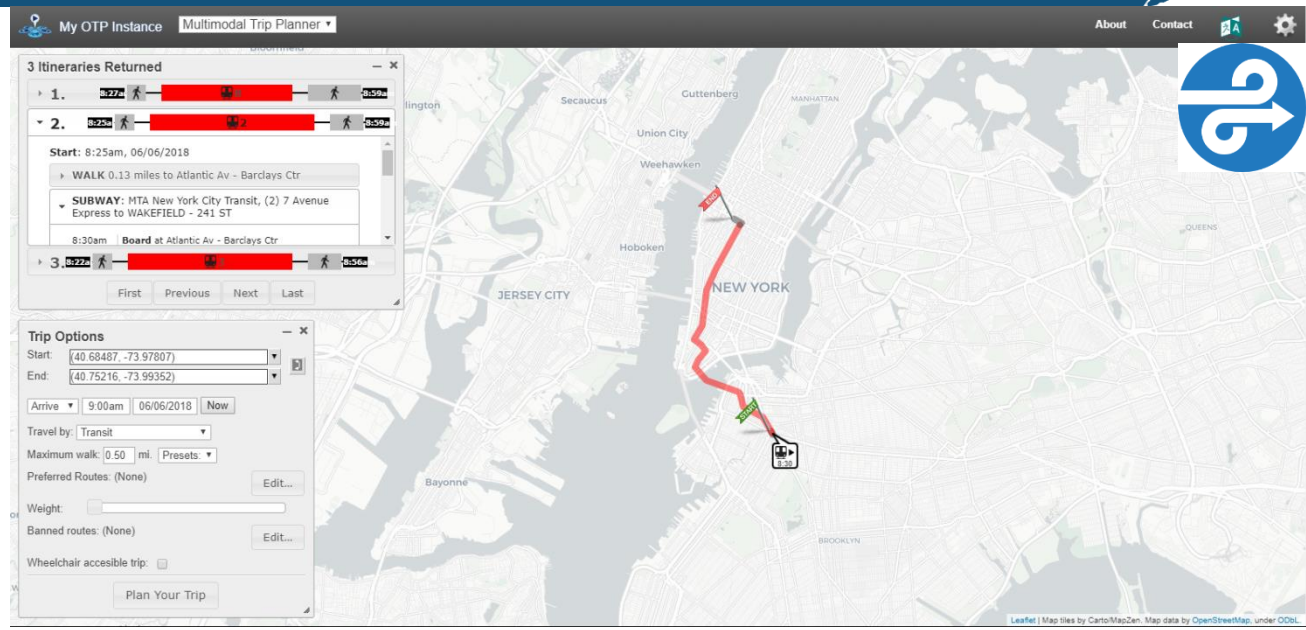
- OpenTripPlanner

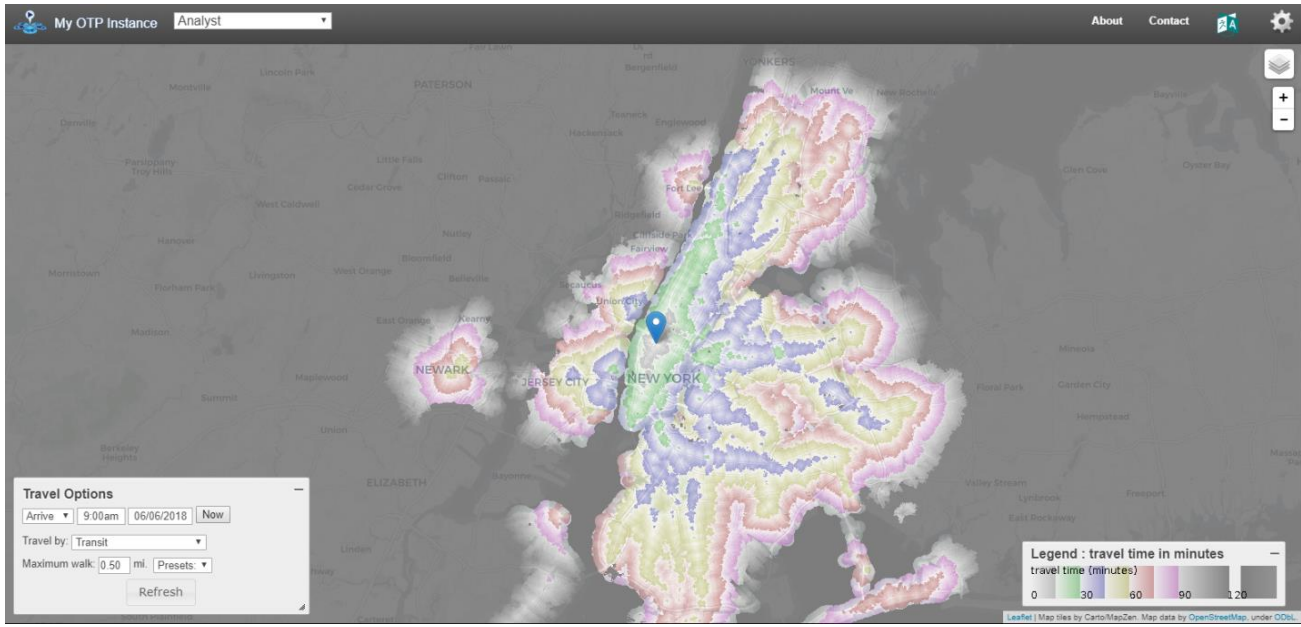
Input Data:

- Street Network: OpenStreetMap
- Transit Network: General Transit Feed Specification (GTFS) schedule data published by transit agencie

Parameters/Assumptions:

- Interested locations
- Modes to include
- Typical travel date
- Departure/arrival time
- Maximum walking distance
- Maximum number of transfers
- Maximum pre-transit driving time
- Penalty for congestion and parking
- Clamped initial wait time
- Isochrone cutoff points
- Travel time assignment
- Travel time aggregation method
- Model outputs





http://www.opentripplanner.org/

Transit Travelshed Models

Walk & Transit Model Input Data:

Street Network: OpenStreetMap

- New York; New Jersey; Connecticut; Pennsylvania

Transit Network: GTFS schedule data published by transit agencies

- New York:
  - MTA NYCT (Subway + Bus)
  - MTA Long Island Railroad
  - MTA Metro-North Railroad
  - Port Authority Trans-Hudson (PATH)
  - JFK AirTrain
  - NYC DOT Staten Island Ferry
  - NYC Ferry
  - Seastreak Ferry
  - NY Waterway
  - Nassau Inter-County Express (NICE)
  - Suffolk County Transit
  - Westchester County Bee-Line System
  - Tappan Zee Express
  - Ulster County Area Transit (UCAT)
  - Capital District Transportation Authority (CDTA)
  - Rochester-Genesee Regional Transportation Authority (RTS)
  - Niagara Frontier Transportation Authority (NFTA)
- New Jersey:
  - New Jersey Transit (Bus + Rail)
- Connecticut:
  - Connecticut Transit
  - Shore Line East
  - 9 Town Transit
  - Norwalk Transit District
- Pennsylvania:
  - Port Authority Transit Corporation (PATCO)
  - Southeastern Pennsylvania Transportation Authority (SEPTA) (Bus + Rail)
  - Monroe County Transit Authority (Pocono Pony)
  - Rabbit Transit
  - Centre County Transit Authority (CATA)
  - Port Authority of Allegheny County
  - Erie Metropolitan Transit Authority (EMTA)
- Rhode Island:
  - Rhode Island Public Transit Authority (RIPTA)
- Delaware:
  - Delaware Transit Corporation (DART)

Transit Travelshed Models

Walk & Transit Model Parameters/Assumptions:

- **Interested locations:**
  - If interested in residence place/workplace Census Tract, use weighted centroid based on Census Block level LEHD residence place/workplace private primary job data
  - Snapped to the closest intersection if within the city
- **Modes to include:**
  - Walk; rail; subway; bus; ferry
- **Typical travel date:**
  - 06/06/2018
- **Departure/arrival time:**
  - If outbound, depart between 7 am and 10 am with 10 mins' interval
  - If inbound, arrive between 7 am and 10 am with 10 mins' interval
- **Maximum walking distance:**
  - 0.5 mile for each trip leg
- **Maximum number of transfers:**
  - 3 (i.e. 4 boardings)
- **Clamped initial wait time:**
  - If outbound, do not clamp initial wait time
  - If inbound, clamp all the early arrival time
- **Isochrone cutoff points:**
  - 0 mins to 120 mins with 2 mins' interval
- **Travel time assignment:**
  - Assign the travel time to each Census Block based on where the centroid of the Census Block is located in the travelshed bands
- **Travel time aggregation method:**
  - For both temporal and geographical aggregation, take the median travel time while disregarding the travel time longer than 120 mins
- **Model outputs:**
  - Travel time (0 min-120 mins; 999=longer than 120 mins) to/from the interested locations for each Census Block and Tract
  - csv table, ESRI shapefile, and automated map

blockid	SITE001
340030050005000	41
340030050005012	39
340030050005013	41
340030050005023	37
340030050005025	37
340030050005028	37
340030050005031	41
340030050005034	45
340030050005036	39
340030050005037	37