

Using CTPP Data for Passenger Ferry Demand Forecasting

TRB: Applying Census Data for Transportation

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November 15, 2017

Agenda

- Passenger ferry modeling and Steer Davies Gleave
- Citywide Ferry Study and Kitsap Transit POF Long-Range Strategy
 - Project context & methodology
 - Why we use CTPP data
 - How we use CTPP data
 - Decisions made regarding CTPP data
 - Project outcome
- Lessons learned

- **Citywide Ferry Study | *New York, NY***
- **Kitsap Transit Passenger-Only Ferry Modeling | *Seattle, WA***
- **Stamford High Speed Ferry | *Stamford, CT***
- **Staten Island Ferry Overnight Service Expansion | *New York, NY***
- **Staten Island Ferry to Midtown | *New York, NY***
- **Boston Harbor Now | *Boston, MA***
- **Advisory for Maritime Transportation Services | *Puerto Rico***
- **Casco Bay Transit Schedule Analysis | *Portland, ME***



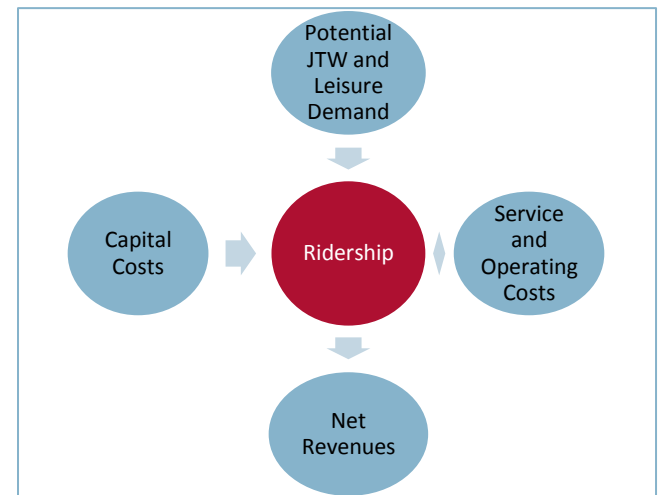
Citywide Ferry Study – 2013

- New York City Economic Development Corporation
- CFS2013
 - 50+ locations
 - Six potential routes
 - Revenues, costs, and subsidy levels
 - Fare levels and headways
 - Economics benefits
 - Environmental impacts
 - Resiliency impacts
- Outcome: New York City Ferry System

East River Ferry Service

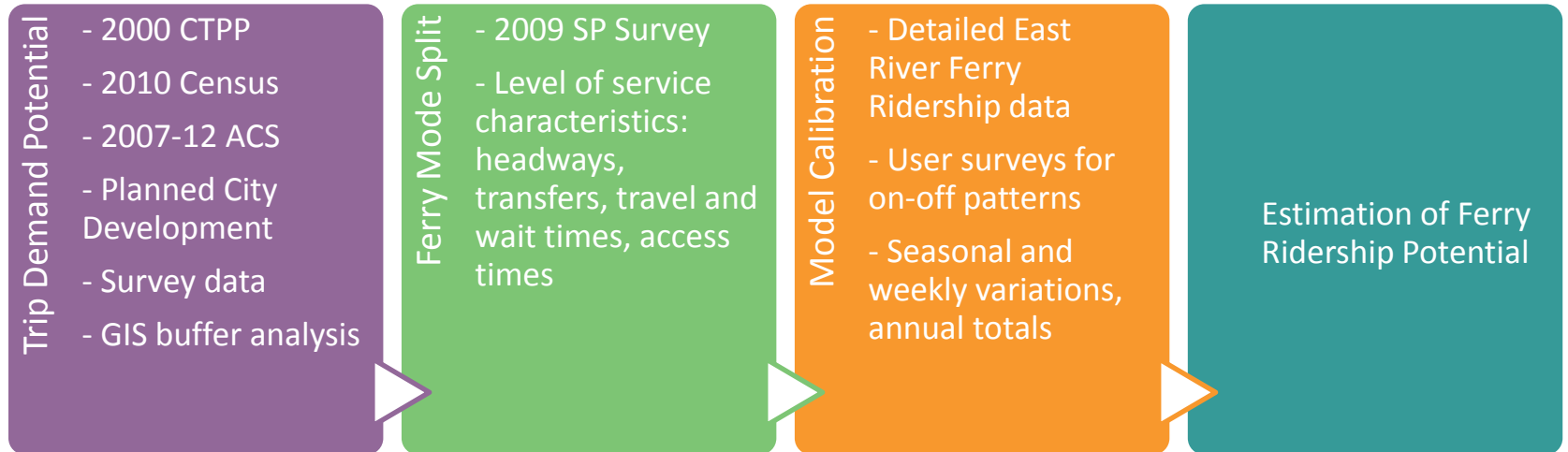


CFS2013 Ridership Approach



Source: NYCEDC, East River Ferry (top)

CFS2013: Methodology



CFS2013: Decisions Regarding CTPP Data

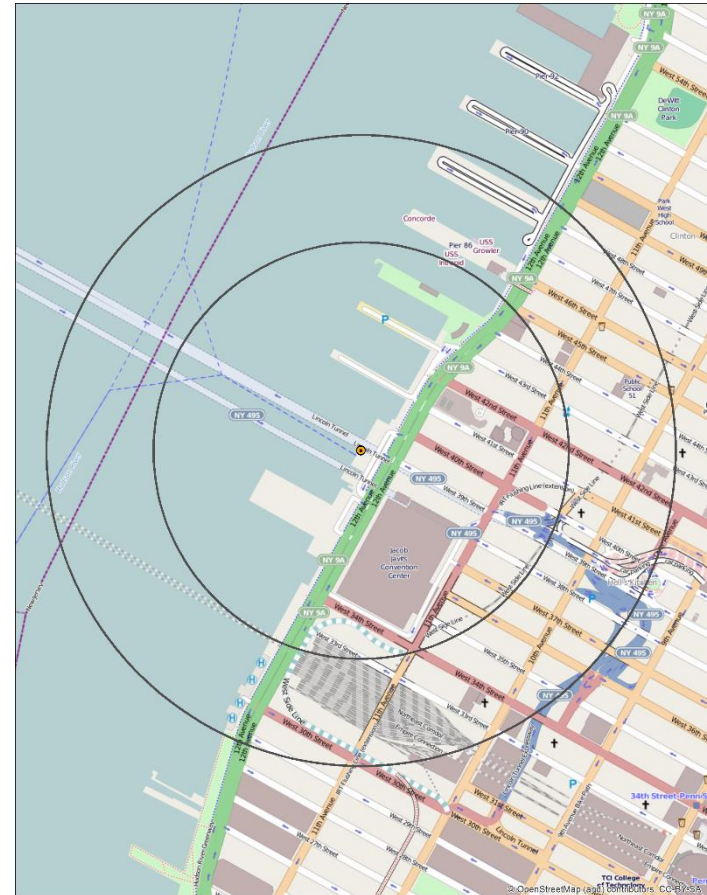
- NYC transit layout
- Potential capture market
- Current travel patterns
- Recent development trends
- Modal data



Source: MTA

CFS2013: Site Profiles

- Demographic data
- Additional development
- Journey-to-Work data
- Ferry vs other transit times comparison
- Existing infrastructure
- Primary and Secondary Market Areas
 - PMA: 8 minute walk
 - SMA: 12 minute walk

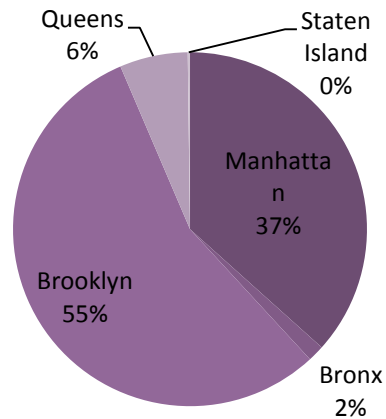


Source: SDG, OpenStreetMap

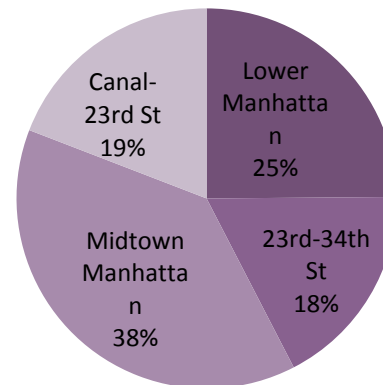
CFS2013: Journey-to-Work Data

- Initial site profiles
 - General commutation potential
- Point-to-point ridership & route ridership
 - Detailed tract to tract commute patterns by mode

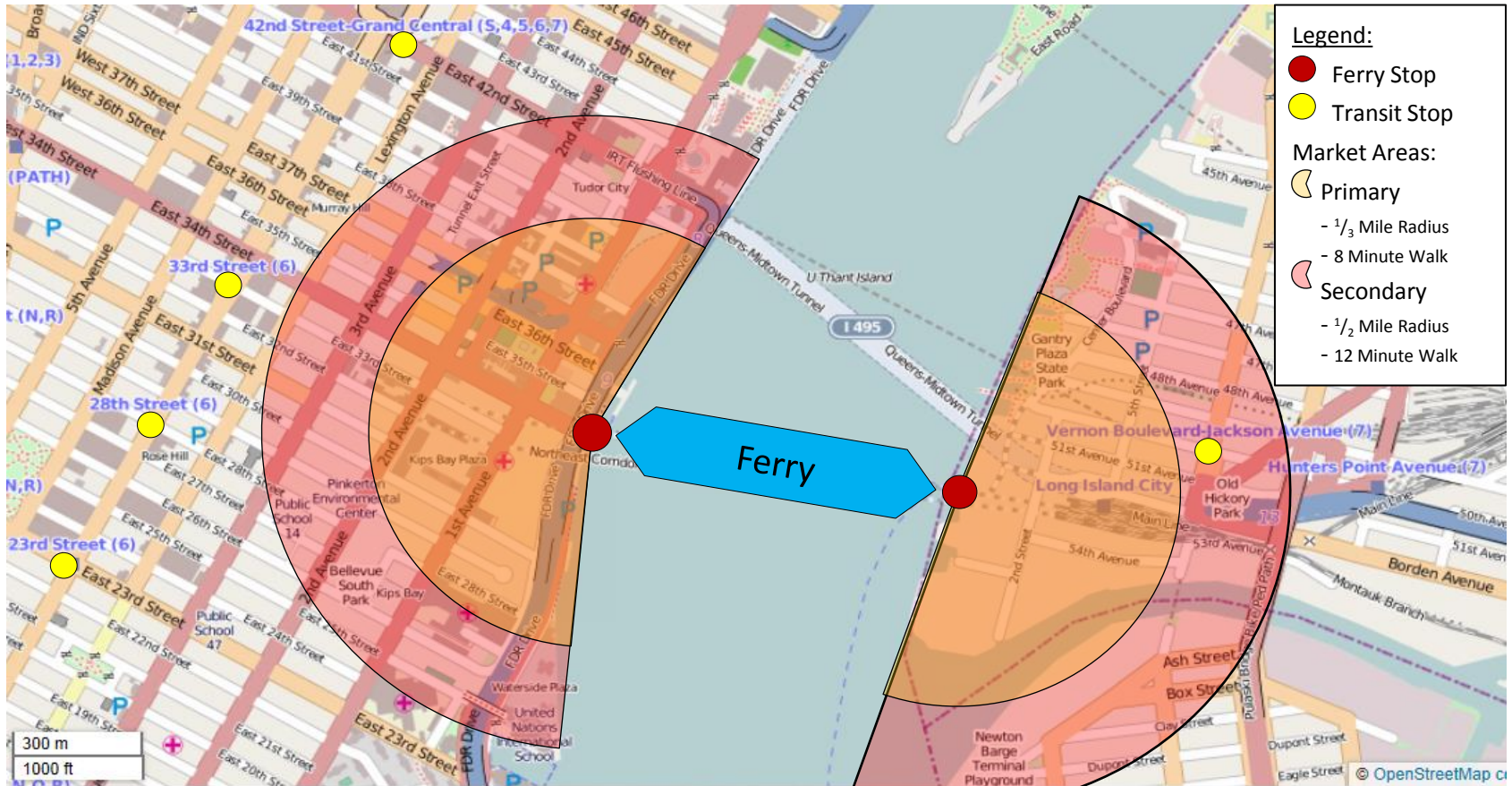
JTW from Landing to NYC Boroughs



JTW from Landing to Manhattan



CFS2013: Ridership Forecasts



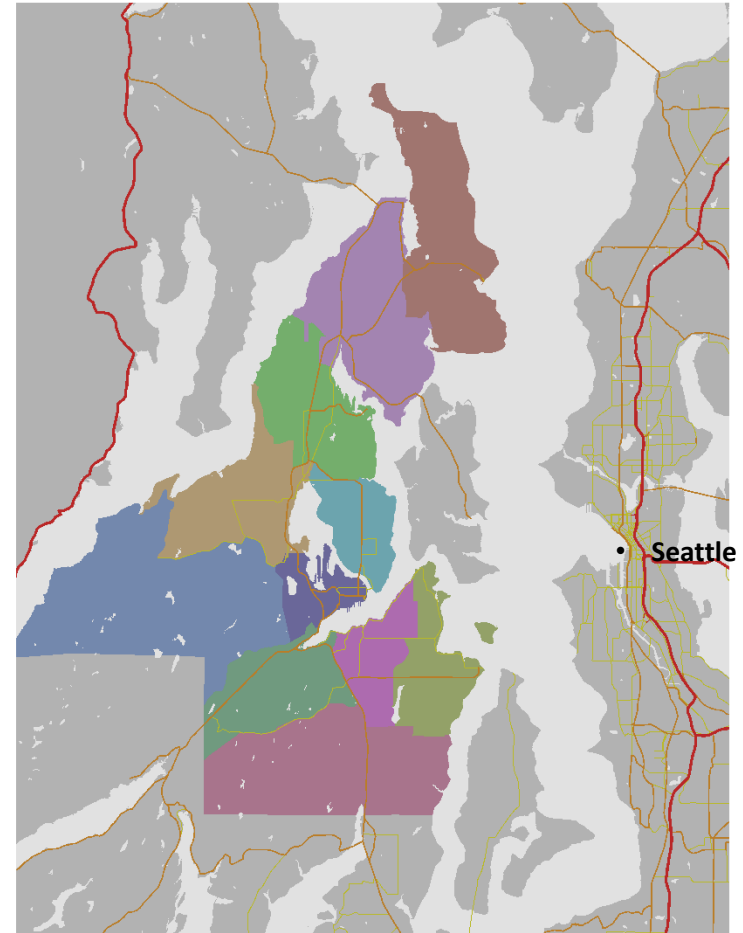
Map Background: © OpenStreetMap contributors (<http://www.openstreetmap.org/copyright>)



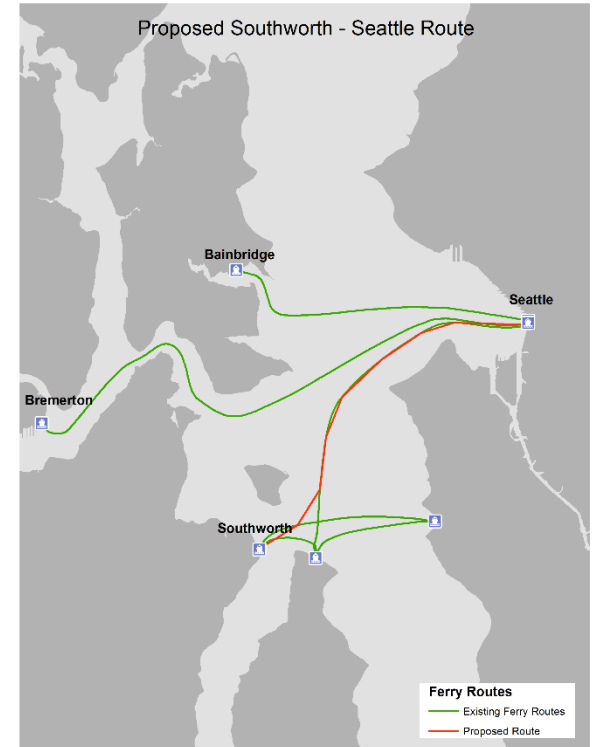
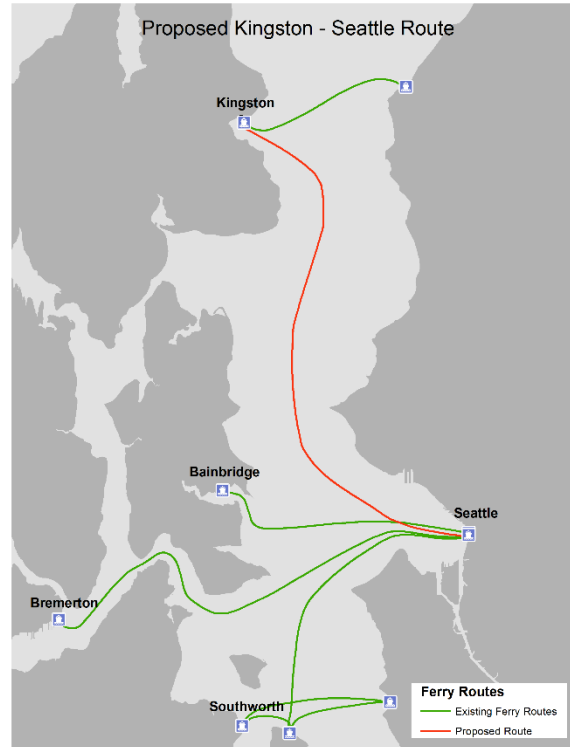
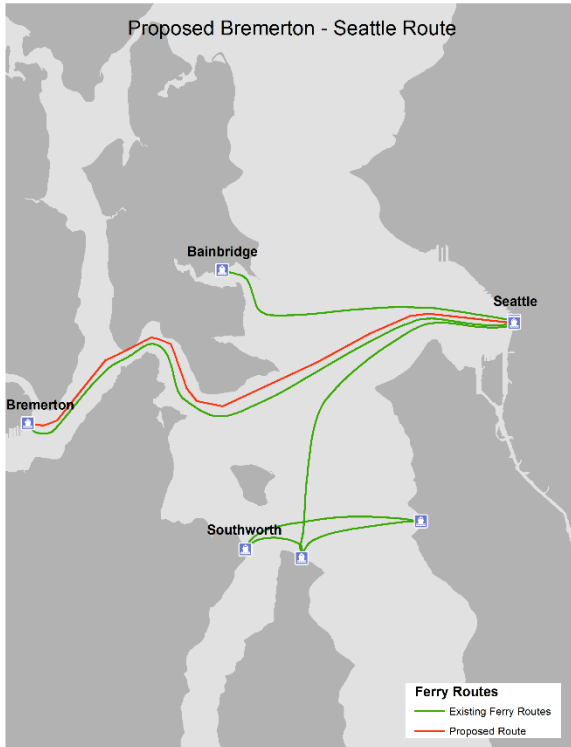
Source: NYCEDC, NYC Ferry

Kitsap Transit Passenger Only Ferry Strategy Development

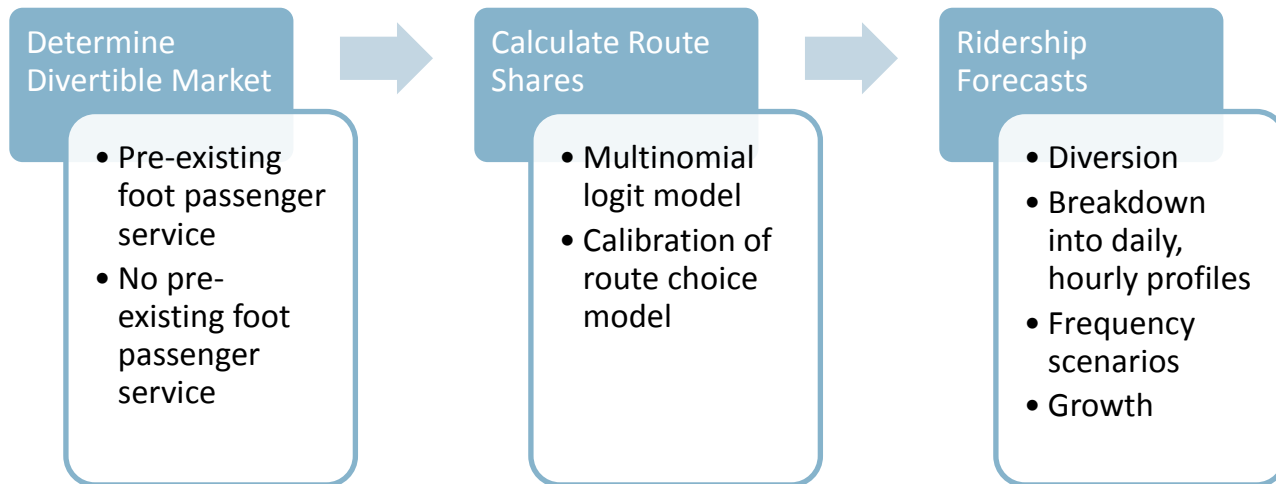
- Team led by KPFF to develop a strategy and business plan for Kitsap Transit POF
- SDG: ridership and revenue forecasts
- Background
 - Early 1900s: first POF service in the region
 - 1981: Kitsap Transit formed
 - 2011: Kingston – Seattle service introduced
 - 2012: Kingston – Seattle service cancelled
 - 2013 Status
- Historic data for calibration, but still need a mode choice model



Kitsap Transit: Proposed Routes



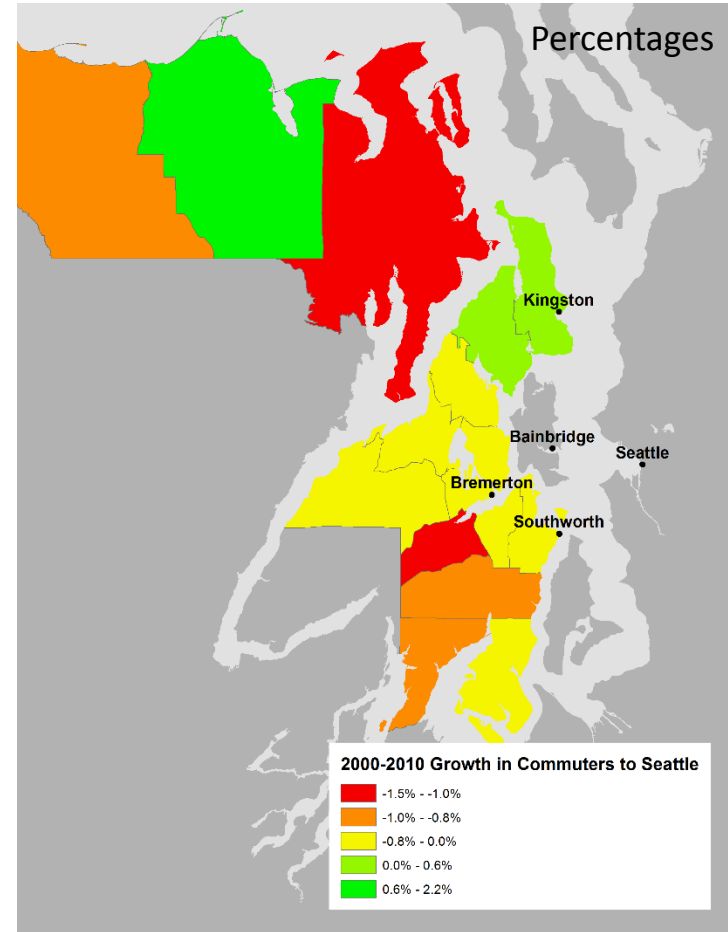
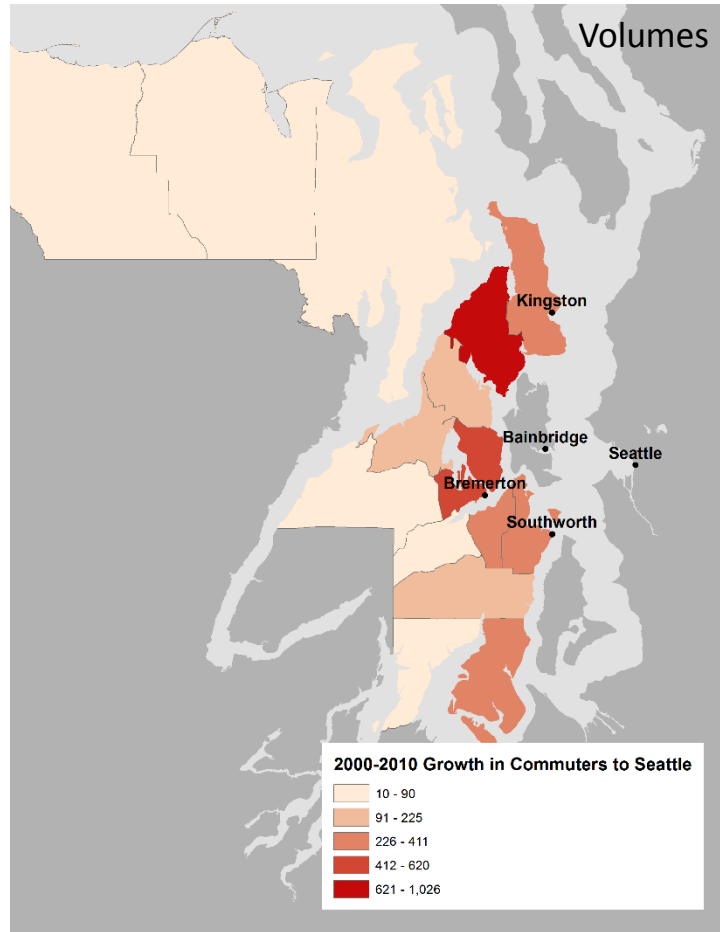
Kitsap Transit: Methodology



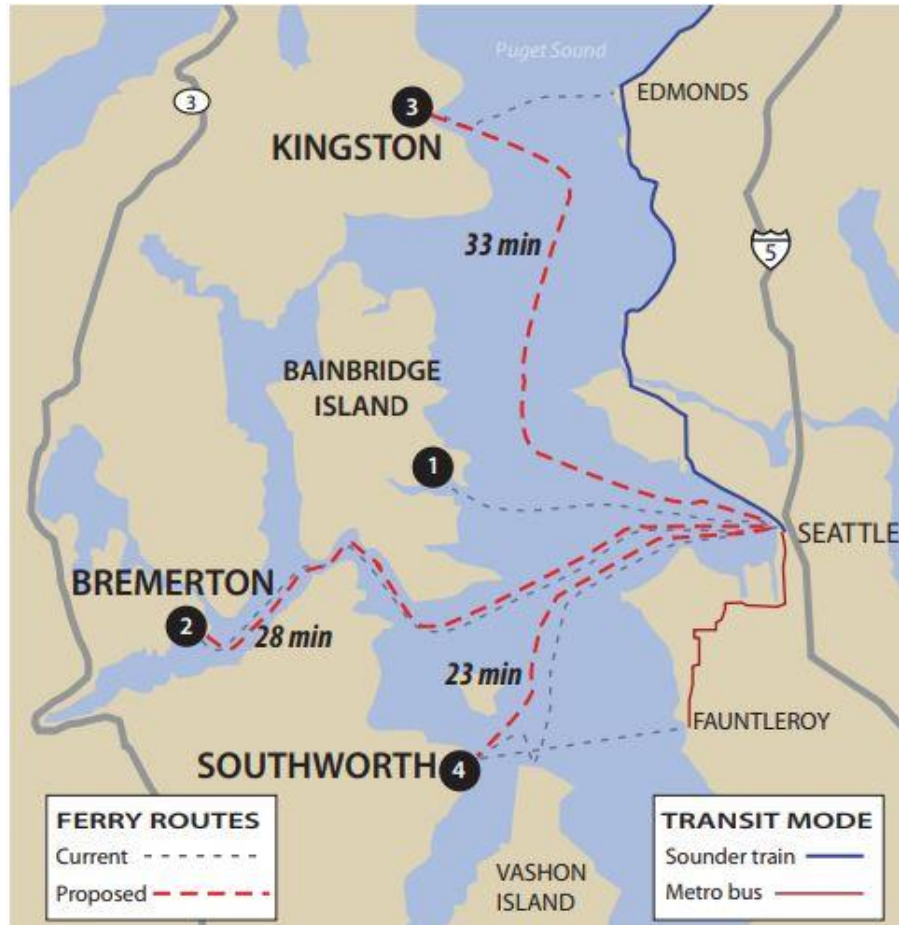
Kitsap Transit: Decisions Regarding CTPP Data

- Current travel patterns
- Pre-existing foot ferry service
- Seattle region transit layout
- Potential capture market: aggregation to zones

Kitsap Transit: Commuter Growth



Kitsap Transit: Outcomes



- Long-range strategy and business plan: approved by election in November 2016
- Bremerton – Seattle: active as of July 10, 2017
- Southworth and Kingston – Seattle: vessel procurement
 - Kingston: Summer 2018
 - Southworth: Summer 2020

CTPP Data in Passenger Ferry Modeling

- Level of detail matters
- Consideration of recent and planned development
- Potential growth
- Available data for calibration
- Non-commuter demand

Questions

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