

Transit Trails:

How do bus cuts affect congestion & coverage?

Problem & Motivation

Cuts and changes to bus routes and schedules have complicated effects on quality of bus service across large areas and on bus delays and road congestion.

It is useful to leverage historical data to demonstrate how congestion and coverage changed as the result of route changes. This could help inform future transit policy decisions.

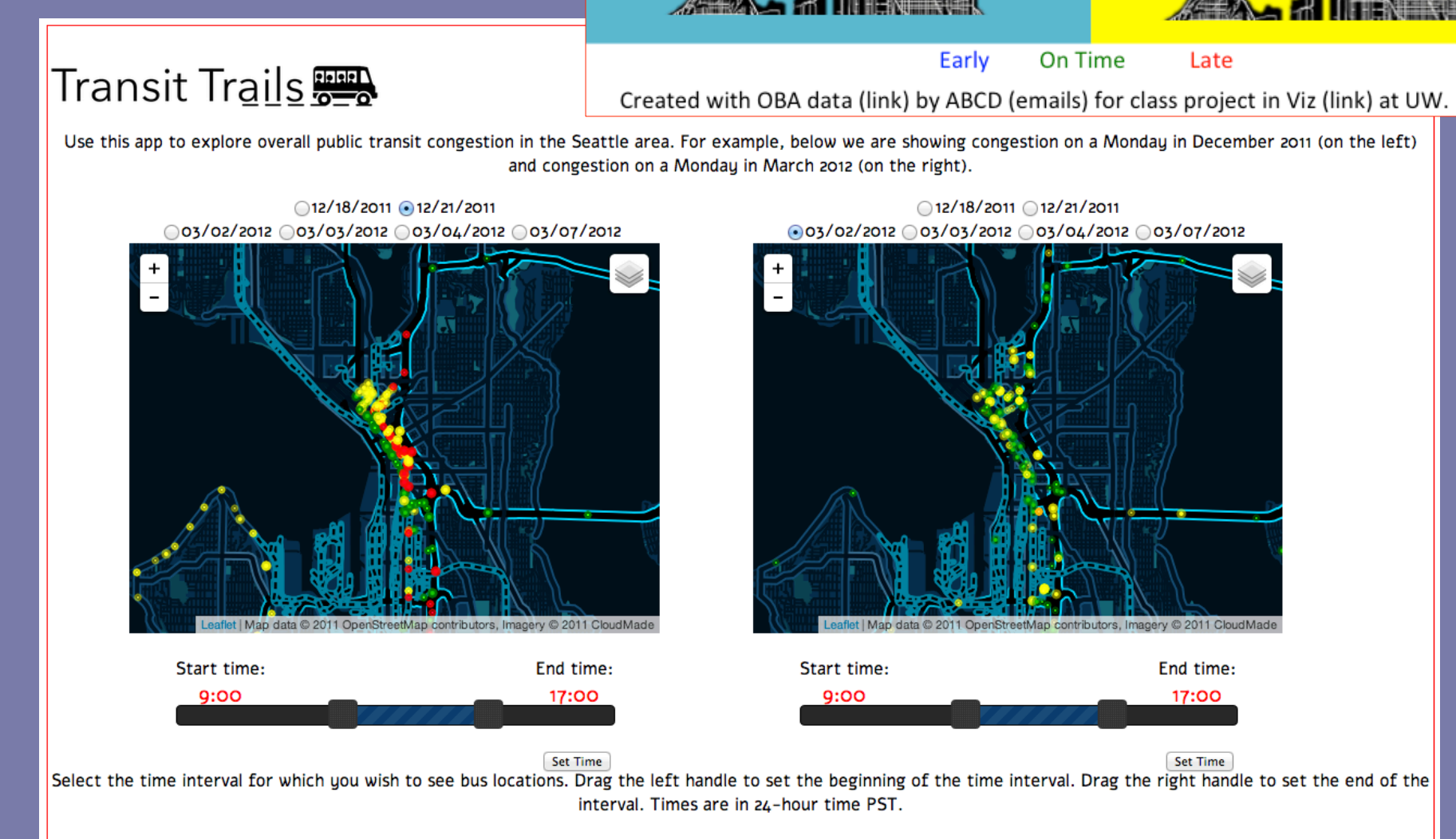
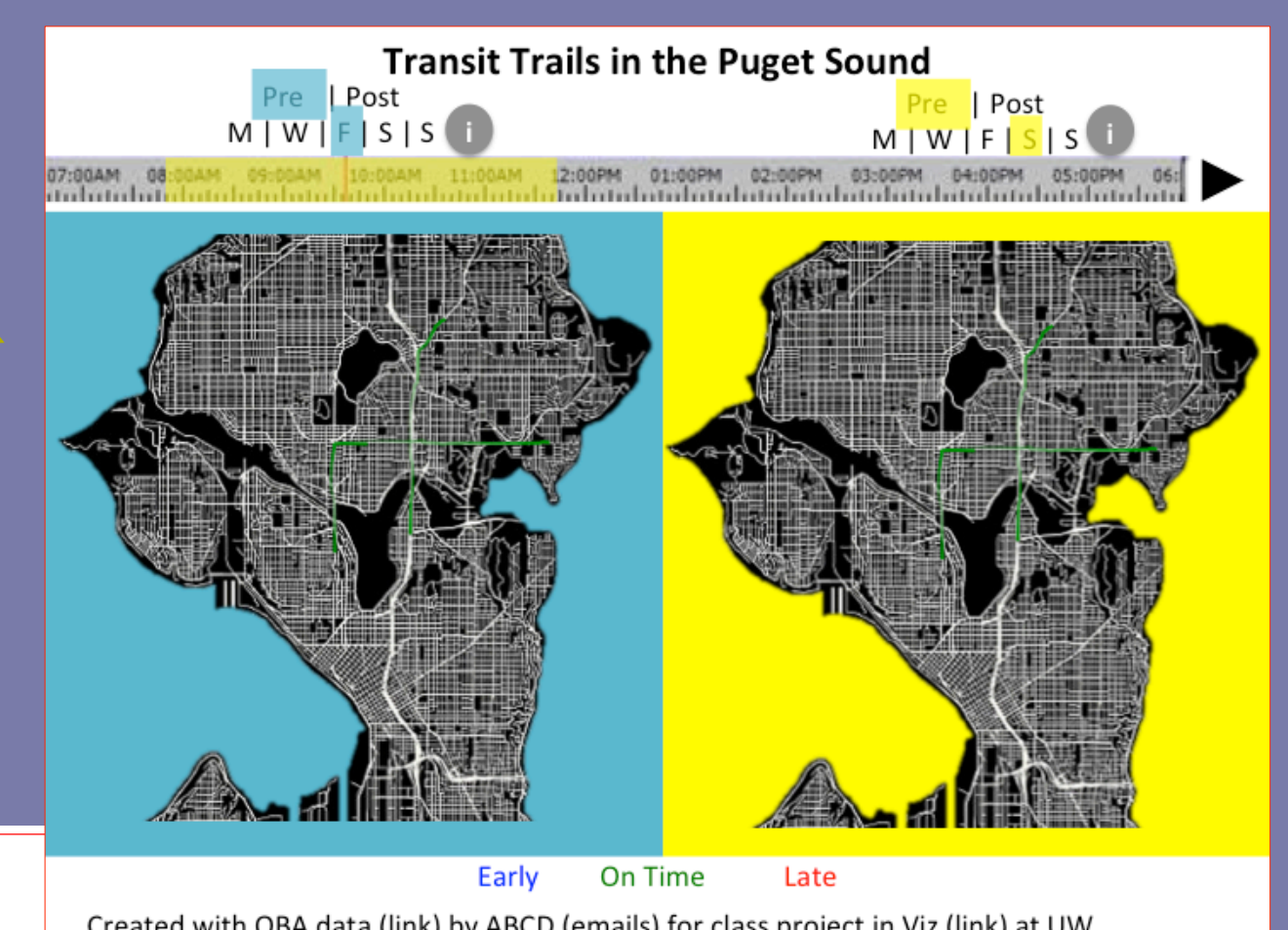
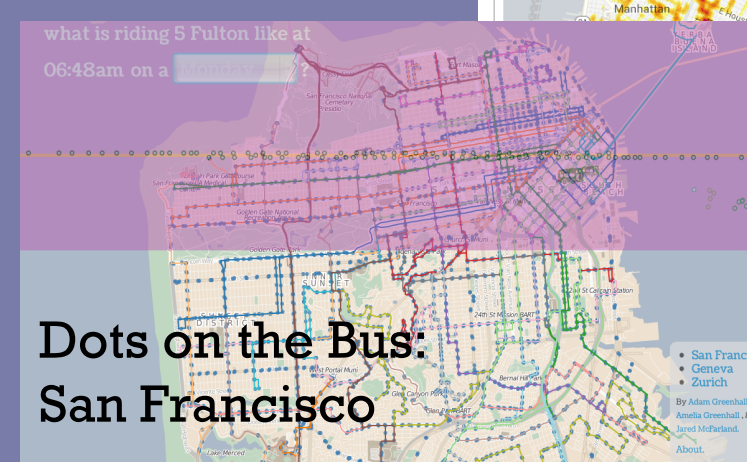
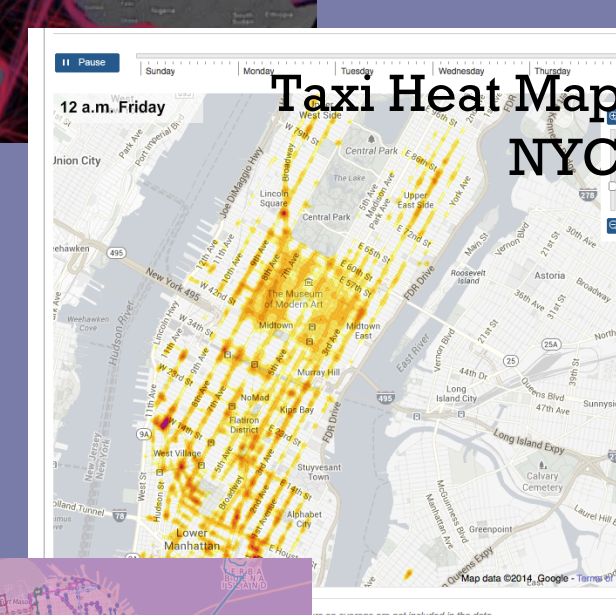
"The easiest way to understand the cuts is to look at our Sunday schedule. It would be like Sunday schedule, but every day"

Seattle bus driver, route 31

Approach

- Focus on Feb 2012 transit change
- Data from several pre-/post-change days
- Two maps enable comparison for different days/times of day
- Colored dots represent locations and delays of buses

Design Inspiration & Initial Prototypes



User Study

- Semi-structured interviews
- 8 participants (4 male, 4 female; including Seattle transit experts & transit users)
- Feedback on prototype:
 - Relevance
 - Interactive features
 - Color choices
 - General usability
- Desired functionality

Design Iteration

- Default to “light” view
- Make maps bigger
- Do not require click to set time
- Ability to sync maps & times
- Add legend
- Day selection by day of week
- Instructions in context

Future Directions

- More complete data collection
- Animation to show movement during time intervals
- Filter by route
- Show bus frequencies
- “Bus score” metrics
- Show multi-day averages

CSE 512 Final Project

<https://github.com/CSE512-14W/fp-cobbc12-cbonnar-pany5-kuksenok>

<http://homes.cs.washington.edu/~cbonnar/viz/busviz.html>

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Will Upcoming Transit Cuts Affect You?

Metro proposes 17% service cut
<http://metro.kingcounty.gov/am/future/>