SF All-Night Transportation Study

Working Group Meeting #3
October 29, 2014
Today’s Agenda

► Recap of last meeting
► Presentation by BART on upcoming pilot project
► Needs and potential solutions
► Next steps
Last Meeting: What We Heard, What We Did

► Screen-friendly and print-friendly slides
► Extended survey deadline
► Break out weekend vs. weekday nighttime transit ridership
► Break out entertainment and work trip survey respondents
► Break out late night personal security concerns for male vs. female survey respondents
► Collision and DUI analysis
► Reached out to invite Golden Gate Transit to invite to future Working Group meetings
BART/AC Transit
Late Night Bus Pilot

BART/AC TRANSIT
LATE NIGHT BUS PILOT

Mariana R. Parreiras, Customer Access

October 29, 2014
Hope for late-night transit dawns; BART to roll out test project

By Michael Cabanatuan Updated 8:03 am, Tuesday, September 30, 2014

Photo: Sam Wolson, Special To The Chronicle
BART/AC Transit
Late Night Bus Pilot

Service Provision

1. Late Fri/Sat + 8 Holidays for 1 year
2. Enhanced Route 800
3. Enhanced Route 801
4. New Route 822
5. Transbay routes will start at 24th St./Mission St.
BART/AC Transit
Late Night Bus Pilot

Route 822

<table>
<thead>
<tr>
<th>San Francisco</th>
<th>Oakland</th>
<th>East Contra Costa County</th>
</tr>
</thead>
<tbody>
<tr>
<td>24th Street/Mission Street BART</td>
<td>14th Street/Broadway</td>
<td>Walnut Creek BART</td>
</tr>
<tr>
<td>16th Street/Mission Street BART</td>
<td>Rockridge BART</td>
<td>Pleasant Hill BART</td>
</tr>
<tr>
<td>Market Street/Van Ness Avenue</td>
<td></td>
<td>Pittsburg/Bay Point BART</td>
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<td>Civic Center BART</td>
<td></td>
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<tr>
<td>Powell Street BART</td>
<td></td>
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<tr>
<td>Montgomery Street BART</td>
<td></td>
<td></td>
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<tr>
<td>Howard Street/Beale Street (Transbay Terminal)</td>
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<td></td>
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</tbody>
</table>
Marketing Needs

- Your contacts?
- Survey respondents?
- How to best reach potential bus riders?
BART/AC Transit
Late Night Bus Pilot

PLEASE VISIT
www.futurebart.org
before Nov. 7th

…and tell us how you think BART should spend $$ over the next 40 years.

Board Meeting on Dec. 4th
Needs and Potential Solutions – Where it Fits In Terms of Study Process/Methodology

1. Existing Conditions Data
2. Public and Stakeholder Input (Survey, Stakeholder Interviews)
3. Top Needs and Potential Solutions
4. Evaluation Criteria:
   - Feasibility
   - Order-of-magnitude cost
   - Implementation timeframe
   - Effectiveness / performance
   - Institutional and policy support
5. Screened and Further Defined Potential Solutions
6. Recommendations and Next Steps
Needs and Potential Solutions – Methodology/Approach

Existing Conditions Data
- California Household Travel Survey
- Transit operator data on service, ridership, fares, Muni on-board
customer satisfaction survey,
- Taxi Customer Survey
- Lyft/Uber data
- Collision/DUI data

Public and Stakeholder Input
(Survey, Stakeholder Interviews)
- Survey: 2805 responses;
  English/Chinese/Spanish;
  Online/paper
- Stakeholder Interviews: GGRA,
  SPUR, Produce Market,
  Fisherman’s Wharf CBD, others)

Documents/Source Materials
(WMATA report, RHI Sociable City,
other online research)

Top Needs and Potential Solutions
Need Area #1: Spatial and Temporal Availability of Travel Choices

Credit: BART station by Jeremy Brooks (by-nc)
Spatial Availability of All Night Transit
## Temporal Availability of Late Night Transit

<table>
<thead>
<tr>
<th></th>
<th>Regular service ends</th>
<th>Minimum Headway, Weekday</th>
<th>Minimum Headway, Weekend</th>
<th>Regular service begins (weekday)</th>
<th>Regular service begins (weekend)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>For All Night Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muni</td>
<td>~1am</td>
<td>Every 30 mins</td>
<td>Every 30 mins</td>
<td>~5am</td>
<td>~6am</td>
</tr>
<tr>
<td>AC Transit</td>
<td>~1am</td>
<td>Every 60 mins</td>
<td>Every 30 mins (20 with pilot)</td>
<td>~6am</td>
<td>~6am</td>
</tr>
<tr>
<td>SamTrans</td>
<td>~12/12:30am</td>
<td>Every 60 mins</td>
<td>Every 60 mins</td>
<td>~4:30am</td>
<td>~5am</td>
</tr>
<tr>
<td>BART</td>
<td>~12/12:30am</td>
<td></td>
<td></td>
<td>~4:30am</td>
<td>~6am</td>
</tr>
<tr>
<td>Caltrain</td>
<td>~12am</td>
<td>-</td>
<td>-</td>
<td>~5am</td>
<td>~8:30am</td>
</tr>
<tr>
<td>Golden Gate</td>
<td>~1am</td>
<td>-</td>
<td>-</td>
<td>~5:45am</td>
<td>~5:45am</td>
</tr>
<tr>
<td>Ferry</td>
<td>~8pm</td>
<td>-</td>
<td>-</td>
<td>~6:30am</td>
<td>~9:30am</td>
</tr>
</tbody>
</table>

*Sources: Transit Operators’ Websites and All-Nighter Map*
## Spatial and Temporal Availability of Other Options - Quantitative/Qualitative Assessment

<table>
<thead>
<tr>
<th></th>
<th>Geographic</th>
<th>Temporal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Taxis</strong></td>
<td>SFMTA Taxi Survey finds 42% of respondents give unfavorable rating of taxi availability at home; but only 17% unfavorable for availability from Downtown(^1)</td>
<td>Operate 24/7</td>
</tr>
<tr>
<td><strong>TNC</strong></td>
<td>Uber data shows more pick-ups in denser, NE parts of city(^2)</td>
<td>Operate 24/7</td>
</tr>
<tr>
<td><strong>Drive</strong></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Walk</strong></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Bike</strong></td>
<td>No bike accommodation on Bay Bridge</td>
<td>N/A</td>
</tr>
</tbody>
</table>

\(^1\) "Best Practices Studies of Taxi Regulation–Taxi User Surveys;" Hara Associates for San Francisco Municipal Transportation Agency (March 2013);

\(^2\) Uber, 1% random sample of 9pm – 5am trips (August 2014)
Relevant Survey Responses Re: Geographic and Temporal Availability of Travel Choices

How much do these issues affect the choices you make regarding travel to, from or within San Francisco between midnight and 5 am?

#### Common Free Response Comment Themes

- **Desire for more coverage and more frequent service** (East Bay, Peninsula, SF, particularly SF outer neighborhoods) and service to North Bay

- **Limited room for bikes on buses and on the last train**

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*Late Night Transportation Survey Results, October 2014*
Potential Solutions

► Longer/earlier hours, change/modify routes, and/or increase frequency on BART, Caltrain, Muni, ferries, SamTrans, Golden Gate Transit

► Supplement transit service span, coverage, and frequency with alternate transit-like services such as jitneys, shuttles, vanpools

► Explore ways to allow taxis, TNCs to better complement transit services

► Support car-share and carpool solutions

► Bike-share stations outside of downtown and in the East Bay
Need Area #2: Speed/Reliability/Quality of Travel Choices

Credit: SF_night_aerial by Ho John Lee (by-nc)
## Speed/Reliability Comparison – Qualitative Assessment

<table>
<thead>
<tr>
<th></th>
<th>Speed</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit</td>
<td>BART = relatively fast, competitive with driving; Other operators can take ~50-200% longer, depending on distance</td>
<td>BART = relatively high on-time performance Other operators = relatively less high on-time performance</td>
</tr>
<tr>
<td>Taxis</td>
<td>Relatively fast</td>
<td>35% of SF residents wait 10 minutes or less for taxi(^1); 3.5 minute avg. pickup time for riders using FlyWheel(^2)</td>
</tr>
<tr>
<td>TNCs</td>
<td>Relatively fast</td>
<td>90% wait 10 minutes or less for TNC(^1)</td>
</tr>
<tr>
<td>Drive</td>
<td>Relatively fast</td>
<td>Relatively reliable (unless congestion/roadway incident)</td>
</tr>
<tr>
<td>Walk</td>
<td>Slower except for relatively short trips</td>
<td>Relatively reliable</td>
</tr>
<tr>
<td>Bike</td>
<td>Relatively fast, especially for short distance trips</td>
<td>Relatively reliable</td>
</tr>
</tbody>
</table>

Sources: Late Night Study Team judgment, \(^1\)App-Based, On-Demand Ride Services: Comparing Taxi and Ridesourcing Trips and User Characteristics in San Francisco;\(^2\) University of California Transportation Center (August 2014) \(^2\)SFMTA Taxi/Accessible Services 9/16/2014 Presentation to SFMTA Board.
Relevant Survey Responses Re: Speed/Reliability/Quality of Travel Choices

How much do these issues affect the choices you make regarding travel to, from or within San Francisco between midnight and 5 am?

**Common Free Response Comment Themes**

- Unreliable bus schedules
- Undependable timed transfers, especially between operators
- Bus drivers sometimes do not stop to pick up passengers
- Taxis and TNCs sometimes hard to find, especially in the outer neighborhoods

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**Late Night Transportation Survey Results, October 2014**
Potential Solutions

► Study sources of nighttime transit delay and low reliability and develop solutions based on major contributors

► Coordinate Muni with last BART and Caltrain runs

► Have buses make fewer stops but allow stops on request

Credit: 38-Geary by Johnny Grim (by-nc-nd)
Need Area #3: Security and Safety of Travel Choices

Credit: Lincoln in the fog by James Cohen (by)
How much do these issues affect the choices you make regarding travel to, from or within San Francisco between midnight and 5 am?

Concerns about personal safety or security when walking or biking
Concerns about personal safety or security on transit

A lot  Somewhat  Not much
How often do you choose *not* to travel at 12–5 am because it feels unsafe?

- Often: 26%
- Sometimes: 33%
- Rarely: 25%
- Never: 16%

**Common Free Response Comment Themes**

- Buses feel unsafe or unruly
- Waiting for and walking to transit feel unsafe, especially in poorly lit and more isolated areas
- On-street bike theft is a greater concern at night
- Concern about collisions as a result of intoxicated drivers

*Late Night Transportation Survey Results, October 2014*
Women are more likely to avoid traveling at night due to concerns about safety.

How often do you choose *not* to travel to, from or within San Francisco between midnight and 5 am because it feels unsafe?

- Never
- Rarely
- Sometimes
- Often

Late Night Transportation Survey Results, October 2014
Fatalities and Severe Injuries in San Francisco 2003 - 2012

Daytime
(5am–9pm)

Late Night
(9pm–12am)

Early AM
(12am–5am)

Fatality
Severe Injury
Fatality
Severe Injury
Fatality
Severe Injury

Vehicle only
Ped
Bike
Fatalities and Severe Injuries/1,000,000 Vehicle Trips

Late Night and Early AM trips are respectively five and seven times more likely to result in severe injury than Daytime trips.

*Assumes annualization factor of 300
2003 – 2013 Fatalities and Severe Injuries by Time of Day and Primary Collision Factor

Daytime (5am–9pm)

Late Night (9pm–12am)

Early AM (12am–5am)

- Fatality
- Severe Injury

- Other
- DUI
- Traffic Signals and Signs
- Driver Failure to Yield
- Pedestrian Violation
- Unsafe Speed

SWITRS 2003-2012
Potential Solutions – Security

► At stops/stations, along transit routes

- Police officers or transit “ambassadors”
- Security cameras
- Clearly posted instructions for reporting trouble
- Waiting areas designed with “Crime Prevention through Environmental Design” principles
- Training for bus drivers on conflict management
- Allow people in BART stations while they wait for the bus
- Create app or expand use of Clipper for cash-less payment
- On-request rides home by SFPD
- Roving Lyft/Uber vehicles
- Volunteer neighborhood patrols (along the lines of Castro Community on patrol http://www.castropatrol.org/)

► Bikes/walking

- More street lights along bike/walk routes
- Secure bike parking near common nighttime destinations
Potential Solutions – Traffic Safety

► Analyze corridor-level patterns of late night injuries and develop solutions based on primary collision factor that could include:

• Unsafe speed: targeted enforcement

• Alcohol involved: targeted enforcement, late night street closures in areas with high levels of pedestrians using alcohol, volunteer-run free rides home for impaired drivers, breathalyzers in bars and nightclubs, pre-paid overnight parking option at pay stations

• Visibility: targeted lighting interventions
Need Area #4: Awareness/comfort of travel choices
Are you aware of Muni and transbay buses that run all night?

- Yes, and I generally know where they run (51%)
- Yes, but I don't know where they run (33%)
- No (16%)

Common Free Response Comment Themes:

- Information about services and options is difficult to find and interpret
- Unreliable NextBus arrival times, out-of-order displays, areas without displays
- Owl stops are not clearly marked
- Dirty vehicles and stations

Late Night Transportation Survey Results, October 2014
Potential Solutions

► Information

- Branded All-Nighter stops, shelters, and transfer points
- All-Nighter schedules posted outside all BART stations
- Enhanced marketing and promotion of existing late-night transit service
- Dedicated website and app for late-night services, including interactive map showing bus location
- GPS tracking/Nextbus improvements including tracking all-nighter lines, more and better working displays,

► Cleanliness

- More frequent cleaning of buses, trains and stations
- Public toilets at or outside BART/Muni Metro stations
- Clearer signage against smoking, littering in stations
Need Area #5:
Cost/equity of travel choices

Credit: SFMTA
## Data and Survey Results re: Cost/Equity

<table>
<thead>
<tr>
<th>Service</th>
<th>1-way fare (regular adult) for rides with one end in SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>BART</td>
<td>$3.30-$6.65</td>
</tr>
<tr>
<td>Muni</td>
<td>$2.25</td>
</tr>
<tr>
<td>AC Transit</td>
<td>$4.20</td>
</tr>
<tr>
<td>Caltrain</td>
<td>$3.25-$13.25</td>
</tr>
<tr>
<td>SamTrans</td>
<td>$2-$4</td>
</tr>
<tr>
<td>Golden Gate Transit</td>
<td>$5-$11.75</td>
</tr>
<tr>
<td>Ferries</td>
<td>$6.25-$10.75</td>
</tr>
<tr>
<td>Taxis (avg. excluding tip)</td>
<td>$17</td>
</tr>
<tr>
<td>TNCs</td>
<td>Not available</td>
</tr>
<tr>
<td>Drive</td>
<td>IRS 2014 mileage rate $0.56/mile</td>
</tr>
<tr>
<td>Walk/Bike</td>
<td>Free!</td>
</tr>
</tbody>
</table>

### Common Free Response Comment Themes

- **Taxis/TNCs relatively expensive options**
- **TNCs are not equipped to transport people in wheelchairs**

"Late Night Transportation Survey Results, October 2014"
Nighttime work commuters are more likely to be low- and moderate- income

Daytime = 5am-9pm
Nighttime = 9pm-5am

Source: CHTS, 2010
SFMTA Muni Systemwide On-Board Study

- Demographics
  - Muni Owl riders more likely to be male, Hispanic/Latino, African-American

![Gender and Race/Ethnicity charts]

SF MUNI On Board Survey 2014
Trip Purpose

Muni Owl riders much more likely to be commuting to work

“What is the primary purpose of your trip?”

- Commute
- Work Related Event
- Shopping/Recreation
- Errands
- School
- Medical/Dental

SF MUNI On Board Survey 2014
Potential Solutions

- Same transfer benefits on Clipper as on cash fares (evening transfers valid until end of service day)
- Taxi or TNC fare subsidy for low-income workers
- Policy/regulatory change to address TNC lack of accessibility
- Adopt regulations to enable flat rate shared taxi rides

Credit: taxi nighttime by Thomas Hawk (by-nc)
Upcoming Task

► Nov–Dec: Preliminary recommendations
  ▪ Consult transit operators/TNCs/Taxis re: relevant solutions as part of screening, invite to present at next meeting

► Criteria in formulating recommendations
  ▪ Feasibility
  ▪ Order-of-magnitude cost
  ▪ Implementation timeframe
  ▪ Effectiveness / performance
  ▪ Institutional and policy support

► Next meeting on Dec. 10 to discuss and provide feedback on preliminary recommendations
For Discussion

► Have we missed any key needs or concerns?

► Additional ideas or suggestions for potential solutions?

► Your thoughts on how to approach the next task, of screening/evaluating strategies and formulating recommendations?
Thank you!

Photo Credit Flickr User: Patrick Boury

Photo Credit Flickr User: Davide d'Amico