

# SoundCast Current and Future Tasks

## Technical Working Group

PSRC  
March 2016

# Agenda

- Recap Progress reported at last meeting
- Progress since last meeting
- Calibration Results
- Review Sensitivity Results
- Performance Measures
- T2040 Schedule

# Progress Reported at last TWG

- External & Airport Trips
- Estimation Status
- Results 4K/Soundcast
- Proposed Removing Light Trucks

# Progress Since Last Meeting

- Calibration Complete (95%)
- Removed Light Trucks
  - Allowed for room to calibrate closer to the survey.
- JBLM Improvements
  - Using JBLM survey data to create trip table.
  - Daily volume at all gates matching observed
- Sensitivity Tests
  - 2040 no build, 2040 no toll, 10/5 cent per mile, 20/2 cent per mile
- Performance Measures

# Progress Continued: Calibration

- Traffic Volume
  - Model volumes closer to counts.
  - Initially high on freeways, brought down.
- Tour Mode Share.
  - Modeled Transit Boardings brought much close to observed.

# Calibration- Daily Counts

County Level Summary			
SoundCast - pre-calibration			
	State Routes - All		
	obs count	model vol	% dif
King	29,810,500	33,755,350	13.2%
Sno	10,836,700	11,432,834	5.5%
Pierce	11,636,360	12,576,502	8.1%
Kitsap	3,160,240	3,159,115	0.0%
All	55,443,800	60,923,801	9.9%
	State Routes - Freeway		
	obs count	model vol	% dif
King	23,507,700	27,265,706	16.0%
Sno	6,861,400	7,601,957	10.8%
Pierce	9,124,000	9,860,515	8.1%
Kitsap	1,736,900	1,971,439	13.5%
All	41,230,000	46,699,618	13.3%
	State Routes - Arterial		
	obs count	model vol	% dif
King	6,302,800	6,489,643	3.0%
Sno	3,975,300	3,830,877	-3.6%
Pierce	2,512,360	2,715,988	8.1%
Kitsap	1,423,340	1,187,676	-16.6%
All	14,213,800	14,224,183	0.1%

SoundCast - TWG			
	State Routes - All		
	obs count	model vol	% dif
King	30,118,800	33,663,096	11.8%
Sno	10,836,700	11,530,683	6.4%
Pierce	11,636,360	12,418,401	6.7%
Kitsap	3,171,640	3,165,243	-0.2%
All	55,763,500	60,777,423	9.0%
	State Routes - Freeway		
	obs count	model vol	% dif
King	23,816,000	27,270,500	14.5%
Sno	6,861,400	7,581,689	10.5%
Pierce	9,124,000	9,622,545	5.5%
Kitsap	1,748,300	1,960,072	12.1%
All	41,549,700	46,434,806	11.8%
	State Routes - Arterial		
	obs count	model vol	% dif
King	6,302,800	6,392,595	1.4%
Sno	3,975,300	3,948,994	-0.7%
Pierce	2,512,360	2,795,856	11.3%
Kitsap	1,423,340	1,205,172	-15.3%
All	14,213,800	14,342,617	0.9%

# Calibration- Transit Results

Transit Agency	Off-Peak Estimated/Observed	Peak Estimated/Observed
CT	1.08	0.92
Kitsap	1.09	1.16
Metro	1.08	1.04
Pierce	1.00	1.08
Sound Transit	1.19	0.91

# Calibration- BRT/Light Rail

RouteGroupName	All_model	All_observed	Estimated/Observed
RapidRideA	9,108	8,566	1.06
RapidRideB	8,353	6,063	1.38
RapidRideC	7,096	7,200	0.99
RapidRideD	7,447	9,740	0.76
RapidRideE	14,716	12,168	1.21
ST Commuter Rail South	8,478	11,663	0.73
ST Commuter Rail North	292	1,205	0.24
ST Light Rail - Tacoma	3,539	3,288	1.08
ST Light Rail -Central Link	27,306	27,088	1.01
Swift	3,592	4,868	0.74



# Future Improvements

- Time of Day
  - Modeled time of day is still off from survey.
  - Test applying new model specification
- Value of Time
  - Aligning value of time in the demand model with the value of time in assignment
- VDFs
  - Model is running a bit fast, there is a little too much freeway volume

# Dashboard with Calibration

[https://public.tableau.com/views/Soundcast-Latest\\_0/SoundcastResults?:embed=y&:displaycount=yes](https://public.tableau.com/views/Soundcast-Latest_0/SoundcastResults?:embed=y&:displaycount=yes)

# Sensitivity Tests

- Four Scenarios:
  - No Build (2014 network, 2040 land use)
  - No Toll (2040 network & land use)
  - Toll 10/5 (2040 network, 2040 land use, 10 cents per mile during peak, 5 cents off peak)
  - Toll 20/2 (2040 network, 2040 land use, 20 cents per mile during peak, 2 cents off peak)
- Show Dashboard
- <https://public.tableau.com/profile/psrc.data#!/vizhome/Soundcast-2040-Sensitivity-Tests/SoundcastResults>

# Performance Measures

- For T2040 plan, working with Long Range Transportation Team to define measures.
- See [spreadsheet](#) and [presentation](#). Also see [model sensitivity spreadsheet](#).

# Next Steps

- Continue Sensitivity Tests
- Make refinements from these tests
- Define metrics
- Finalize projects and create updated networks