SHRP2 C10: Metropolitan Transportation Commission

Quarterly Report for July 2015 – September 2015 (submitted 25-Sep-2015)

SUMMARY

The Tri-Agency group implementing Fast-Trips has made significant progress on: software development, data standards, network development, demand evaluation, and route choice methodology. In administrative news, Mark Simonson has joined the Management Team from PSRC and Hood Transportation Consulting has joined from our consultant bench. Jeff Hood of Hood Transportation Consulting will lead the route choice estimation task.

With this quarterly report, we are submitting deliverables that document the two technical specifications that were completed during the last quarter: Transit Networks and Travel Demand. Both documents are working drafts, as we will refine them as the project progresses.

IMPLEMENTATION

Work accomplished for the period:

Task	Activities
Task 1 - Project Mgmt / Tech Oversight	● Negotiated and executed funding agreement & associated task order
Task 2 - Network Supply	● Completed network design specification
Task 3 - Transit Demand	● Completed demand data specification
Task 4 - Transit Rider Behavior	● Completed literature review for estimation
Task 5 - Transit System Performance	
Task 6 - Software Implementation	● Completed re-factoring of code base ● Implemented code changes to bring Fast-Trips run-time within acceptable limits ● Coordinated with academic partner to implement selected additional features
Task 7 - Test Case Development	
Task 8 - Agency Implementation & Testing	
Task 9 - Communications and Outreach	● Added four new posts to website blog ● Participated in C10 coordination call

Schedule status:

Our pace of work has increased. We remain about two months behind our planned schedule, but hope to catch up with the additional resources that have been added to the project.

Expenditures and budget status:

Resource	FHWA or In-kind	Encumbered / Committed	Invoiced to Date / Expended
SFCTA	FHWA	$310,000	$27,100
SFCTA	In-kind	$80,000	$4,600[1]
PSRC	FHWA	$100,000	$10,000
PSRC	In-kind	$77,000	$10,000
MTC	FHWA	$83,000	$13,100
MTC	In-kind	$98,000	$30,700
Univ. of Texas, Austin	FHWA	$38,500	$0
Mark Hickman (Univ. of Queensland)	In-kind	$10,500	$0
Hood Consulting	FHWA	$60,000	$0
UrbanLabs, LLC	FHWA	$100,000	$0
To be determined	FHWA	$8,500	$0
Total	*FHWA*	*$700,000*	*$50,200*
Total	*In-kind*	*$265,500*	*$45,300*
Total	*All*	*$965,500*	*$95,900*

Summary of the quarter ahead:

In the quarter ahead, we will continue to advance multiple technical tasks. For software development, the next step is to do feature development on modal/technology biases and selections and then to optimize for skimming procedures. The networks team has now started developing Python code to create the networks from both EMME/SoundCast and SF-CHAMP/Network Wrangler using agreed upon methodology for translating headways to schedules. The demand team is currently finalizing methodology to adjust our demand that we will then be used for route choice estimation based on the GPS data from the California Household Travel Survey, On-Board Surveys, and Automated Passenger Counter data. Not far behind, the route choice team completed a draft literature review and is evaluating various

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[1] In-kind expenditures will be estimated as reimbursed expenses are invoiced.

possible methodologies while they await some contracting hurdles to pass and data availability milestones to be reached by other parts of the team. The goal is to have all task teams converge at a mid-October time point and be able to begin route choice model estimation.

Risks/Challenges/Obstacles:

Team member coordination and communication has improved since last quarter, but we still struggle to consistently engage all seven technical task leaders at the appropriate level. The inconsistency in pacing could be problematic if it is not resolved in the near term. The current challenges appear to be relatively isolated, and the Management Team is in the process of evaluating the available options to address this constraint.

MEASURES

Our performance measures tracking tool shows current values for all metrics, including the developments in the past quarter specifically noted below.

Implementation:

Three of our team members participated in the quarterly C10 coordination call in which we provided a progress update.

Partnership:

A total of 18 people are now using our collaboration tools: the Asana project management system, our code repositories on GitHub, and cloud storage on Google Drive and Box.

Dissemination:

Regular website updates continue, but there were no formal presentations in the past quarter.

CATEGORY	DEFINITIONS			TOTAL	Jan-Mar 2015	Apr-Jun 2015	Jul-Sep 2015	Oct-Dec 2015	Jan-Mar 2016	Apr-Jun 2016	Jul-Sep 2016	Oct-Dec 2016
Tool Implementation and Deployment	**OUTPUT MEASURE**	**METRIC 1**	**TARGET 1**									
	Agency and project partners participate in all required calls/meetings.	Number of calls/meetings attended	Minimum: Participation in group kick-off, project kick-off, and 2 additional scheduled calls per year	4	2	1	1					
	Project deliverables are submitted to Volpe/FHWA on time and on schedule.	Quarterly progress reports submitted by specified due date	Quarterly progress reports submitted by specified due date.	3	1	1	1					
		Final deliverables submitted by due date	Final deliverables submitted by due date.	3	1	0	2					
	Agency identifies desireable refinements (i.e., suggestions for future research) for tools created from the C10 project.	Documentation of desireable refinements within existing project deliverables	Information about desireable refinements included within final report.	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	Agency supplies lessons learned from participating as a C10 grantee.	Documentation of lessons learned	Information about grantee experience included within final report.	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
	OUTCOME MEASURE	**METRIC 2**	**TARGET 2**									
	Travel demand model contains new sensititivities suitable for policy analysis.	Number of progress reports that document new variables / modeling options available	At least one	0	0	0	0					
	Methodologies, work processes, key decisions, problems encountered, & lessons learned are sufficiently well documented that peers can follow the work and repeat the results.	Number of issues and lessons documented in on-line tools	At least one	0	0	0	0					
Capacity Building and Partnerships	**OUTPUT MEASURE**	**METRIC 1**	**TARGET 1**									
	Agency practitioners (staff, contractors, consultants) and assigned partner staff are engaged with project and familiar with results.	Number of users of online collaboration tools	Staff from each partner agency makes contributions to archive of project knowledge.	18	15	17	18					
	OUTCOME MEASURE	**METRIC 2**	**TARGET 2**									
	Agency and partner staff acquire additional skills and expertise.	Number of progress reports that document new skills / expertise acquired	At least one	0	0	0	0					
	Improved work processes, data, analysis tools, and decision information are in use by our agencies.	Number of progress reports that document uptake of new processes, data, tools, methods	At least one	0	0	0	0					
Technology Transfer / Research Dissemination	**OUTPUT MEASURE**	**METRIC 1**	**TARGET 1**									
	Project data and information is shared with the academic and practitioner communities.	Number of presentations delivered (conferences, technical meetings, TRB)	1 TRB paper or poster, or participation in a panel/workshop that recounts the information	1	0	1	0					
		Number of papers/memos/articles written about the project experience	1 Presentation prior to project closeout to FHWA or other interested communities	0	0	0	0					
	OUTCOME MEASURE	**METRIC 2**	**TARGET 2**									
	Peer agencies in the state/region expresss interest in or begin to deploy C10 tools.	Number of agencies that contact C10 team about the project and/or express plans to pursue implementation	At least one	1	0	1	0					