HST PLAN PART 2: TARGETED IMPROVEMENTS

SECTION 1: Structure behind tactics and results

HST at the regional/metropolitan-level scale is driven by specific local improvements in counties and municipalities. Together, these local improvements connect to achieve on-the-ground improvements that people benefit from each day.

While the previous information has been provided at the regional scale, the strategic approach laid out in the following section is also broken down in a way that a county, sub-county area, or municipality could apply a similar strategic approach in their local area. Furthermore, the data analysis provided in the previous section for needs analysis and transportation options/ modal integration could also be applied.

The planning process, particularly through the public outreach at various HST population-oriented organizations, has identified a decision-making process that HST populations work through to arrive at HST options personally available to them based on disability, income, and linguistic factors, amongst others. All populations making transportation decisions go through the following mental steps:

Source: ARC

1. **Education and awareness** – they take stock of the transportation options that are possibilities for them as far as they are personally aware. It is important to note that there may be additional options available to them of which they are unaware.
2. **Home** – Their options will become reduced as they see which options are possible based on their home location.
3. **Destinations** - Their options will become reduced as they see which ones are possible based on their destinations.

If the person is part of an HST population, they will likely explore 1, 2, or all 3 of the following after the geographic options are clear (not necessarily in this order):

4. **Disability factors** – Due to a disability, a person may have specific needs (e.g., vehicle equipment) for the trip. When these cannot be met, the option is eliminated.
5. **Income factors** – Due to income limitations, some options may be unaffordable once or financially unsustainable to handle for an on-going basis. When this misses the mark, options are also eliminated.
6. **Linguistic factors** – Due to linguistic limitations, some options may not work from a communication standpoint. Instructions and processes could be difficult or impossible to understand. This also can reduce the available options.

If the person is not part of an HST population, they may not consider disability, income, or linguistic factors. All populations will close out the process with the following steps (not necessarily in this order), which could expand:

7. **Travel time** – They will compare their remaining options by the travel time, keeping efficiency in mind. For some transportation options, they may balance out time with cost or other factors such as the ability to use time on the option effectively (even if they actual trip is longer). This is common for transportation options that do not require the user/consumer to drive, such

as transit and carpooling. The user may be able to read, work, or catch up on activities while on the trip.

8. **Safety & comfort** – They will evaluate their safety and comfort on the transportation option given other environmental factors. Weather can be a big factor. Walking, for instance, may not be considered a comfortable option while raining. For an electronic wheelchair user, rain may even damage equipment, which could be both safety and comfort issues.

F = Fixed route/guideway transit
H = Hybrid demand-response/fixed transit
Ss = Specialized Services
V = Vanpool
C = Carpool
T = Taxi/TNC
B = Bicycling
S = Sidewalks
Tw = Telework

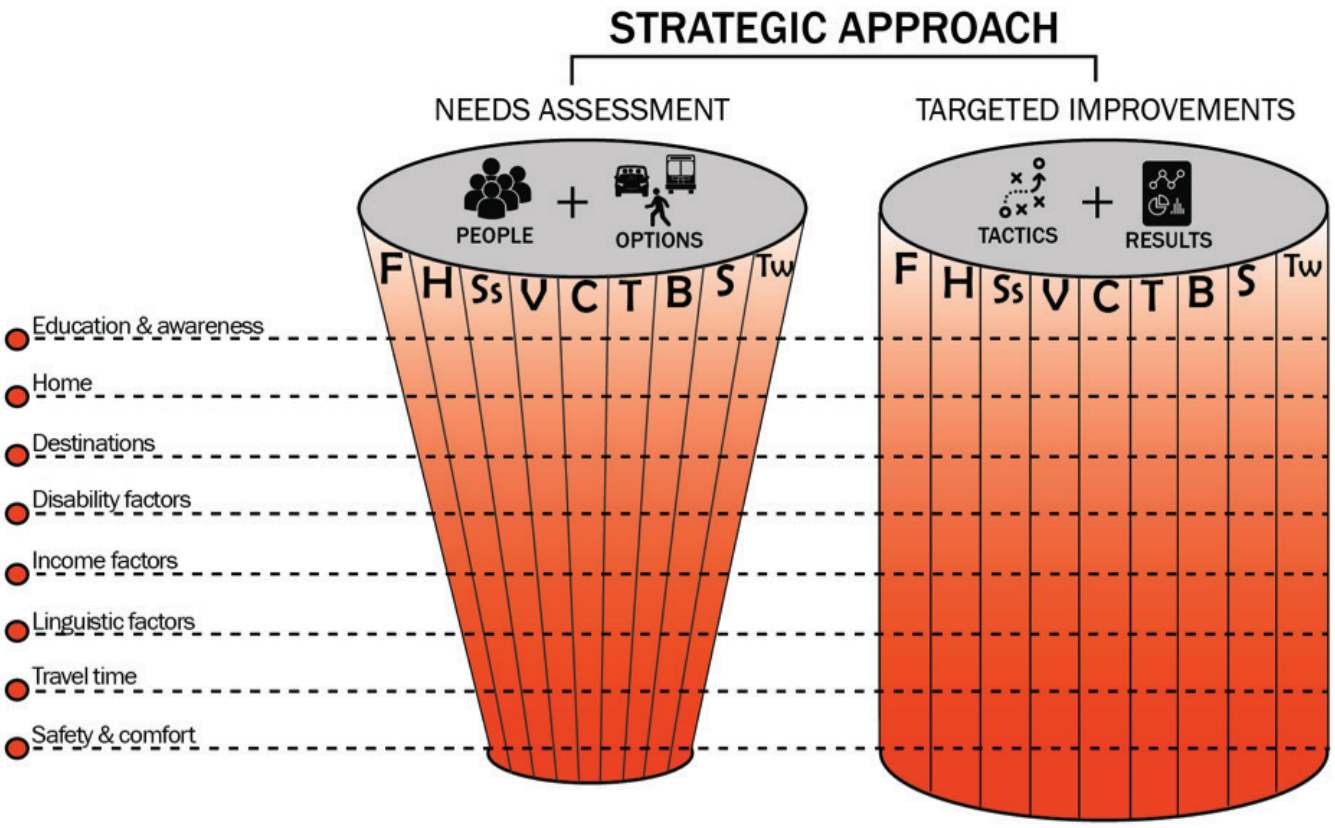
Source: ARC

People are considering a number of options, all of which are non-SOV. They include the following options above, which can be used alone or combined to form multiple "legs" (segments) of a trip.

Understanding the needs of HST populations as they progress through the decision-making process and how they can leverage transportation options comprise the first part of a strategic approach: the needs assessment.

As explained in the plan, the decision making process acts as a funnel or filter that removes viable options depending on personal factors of the user/consumer.

If, at each step of the decision-making process, more options can be kept viable for people with diverse needs, then HST improvements start to reshape the reality of the decision-making process from a funnel/filter to a cylinder. This illustrates that the options identified at the very beginning of the decision-making process remained options even as people encountered potential barriers.



Source: ARC

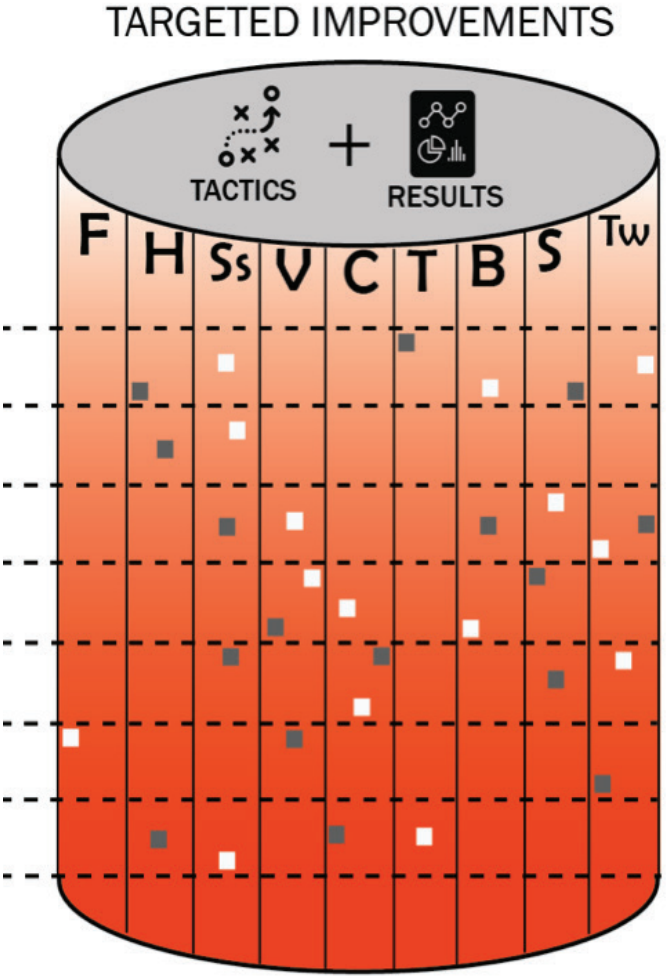
Source: ARC

Therefore, the next steps in the strategic approach that comprise the targeted improvements, tactics and results, help to achieve the new shape of HST options – the cylinder.

The strategic approach helps to broaden the options that remain intact for HST populations based on their diverse needs. Working on pinpointing targeted improvements includes the following steps. First, the local authority should identify which tactics they already do within their projects, programs, and initiatives (at left, in grey). Second, they should evaluate the potential to measure the impacts of these tactics by quantifying/qualifying the results. Third, they should identify which tactics (at white, in grey) and results might help achieve locally-important objectives (based on the needs assessment, public outreach, and other processes the authority finds helpful). Initially, this helps create a draft list of options to consider and compare with tactics and results already in place. Fourth, they may try to connect tactics that help bolster each other (such as tactics related to transit and sidewalk improvements). Fifth, they may attempt to quantify/qualify the potential results of various sets/groups of tactics and compare them against each other (these could be called scenarios). Sixth, they will choose a set of tactics that seem promising for their own HST improvements and move into additional steps such as phasing, budgeting, comprehensive planning integration, etc.

In summary, 4 steps comprise a methodology for pinpointing HST needs and addressing them in a local area. For the needs assessment, they are 1) understanding the needs of HST populations (people) and the 2) options available to them. For targeting improvements, they are 3) tactics (activities that can improve the situation in the form of projects, programs, or initiatives) and 4) results (measurable indicators that demonstrate performance).

Connected to the HST Plan itself is a training and target-setting initiative, similar in structure to the LEED green building initiative. This training will further detail this approach by offering a geographical context layer for consideration, connecting specific modes and tactics that are appropriate for contexts ranging from highly rural to highly urban. Within a county, there could be a variety of contexts depending on density across the county. Therefore, the county would categorize areas into contexts, then apply the strategic approach to arrive at a workable solution in their own area.



Source: ARC

* Grey squares represent current tactics being used; white squares represent new tactics under consideration.

Over the years as more counties and municipalities use the framework, these results will feed up into the regional gains. There is no regional progress without effective local action.

The tactics and results are broken down by transportation option within the decision-making framework.

SECTION 2: "Menu" of tactics and results by transportation option

F = Fixed route/guideway transit
H = Hybrid demand-response/fixed transit
Ss = Specialized Services
V = Vanpool
C = Carpool
T = Taxi/TNC
B = Bicycling
S = Sidewalks
Tw = Telework

Source: ARC

Source: ARC

Decision-making factor	Fixed Route Transit (F)	
	Tactic	Result
Education & awareness	Awareness campaigns about existing/new options (i.e., MARTA/Atlanta region transit marketing, Lyft campaign in Atlanta)	% change in ridership figures by total, HST, and self-locating populations
	Training on day-to-day usage of the options (i.e., DisabilityLink's travel training program, CCT's Get on the Bus Gus)	% change in ridership figures by total, HST, and self-locating populations
Home location	Design new/expand existing transit routes to reach more homes of HST populations (concentrations or evenly distributed)	% of HST population with transit stop within walk/bike/drive sheds, % change before/after
	Education for home renters/buyers about locating near these options including savings (e.g., Arlington, VA commuter services)	% of population self-locating near transit stop within walk/bike/drive shed
Destinations	Design new/expand existing transit routes to reach more destinations for HST populations	# of HST destinations along routes, classified by type (e.g., employment, schools/universities, medical/health, daily errands, places of worship, social services, recreation/entertainment, etc.), % change before/after
	N/A	
	Education for employers/business owners/schools/etc. about locating near these options including business case	% of destinations self-locating near option within walk/bike/drive shed
	N/A	
	Increase ADA accessibility for vehicles	# and/or % of vehicles that are 100% ADA accessible (or other %), % change before/after
	Increase wheelchair accessible seating in vehicle	# seat options added, % change before/after
Disability factors	Reduced limitations on companion riders	qualitative improvement in policy
	Reduced limitations on service animals	qualitative improvement in policy
	Increase ADA accessibility for stops/stations	# and/or % of stations/stops that are 100% ADA accessible (or other %), % change before/after
	Increase ADA accessibility within walk/bike shed of stops/stations	% miles of ADA accessible walk/bike shed of stops/stations, % change before/after
	Cost of transit pass per person	Total reduction amount per trip/pass option
	Companion rider benefits	qualitative improvement in policy (e.g. rides at reduced rate/free)
	Cost of transit pass per family	Total reduction amount per trip/pass option/family
	Discounts for HST populations	qualitative improvement in policy (e.g., expanding to include veterans like CTA/Chicago, reducing older adult age limit)
Income factors	Increased flexibility for monthly pass payment	qualitative improvement in policy (e.g., allowing 2 payments/month to align with work payment schedule for those living paycheck to paycheck)
	Increase availability of affordable workforce housing within walk/bike/drive sheds	% of affordable workforce housing within walk/bike/drive sheds, % change before/after
	Expand service hours to accommodate range of job types	qualitative change in service hour expansion
	N/A	
Linguistic factors	Increase in visual translated materials/information (including online)	# of materials/informational elements translated per language, % elements of total per language, % change before/after
	Increase in audible translated materials/information (including online)	# of materials/informational elements translated per language, % change before/after
	Increase in total languages covered	# of languages total, at various levels of % of materials/informational elements translated

	Drivers/other consumer-facing staff speaking languages other than English	# of staff members, % change before/after
Travel time	Trip distance reduction tactics (route planning for maximization along key corridors, etc.)	Tap in/outs indicating complete trip with multiple legs % change before/after
	Trip time/delay reduction tactics (more frequent service, avoidance of traffic congestion, mechanical failures, driver timeliness, etc.)	Tap in/outs indicating complete trip duration with % change before/after
Safety & comfort	Improved lighting (nighttime visibility)	# of lighting improvements installed, % of total stops/stations with lighting at various levels, % change before/after
	Improved police/security team presence	Qualitative improvements
	Apps to report suspicious activity (e.g., MARTA's see and say)	Qualitative app engagement
	Emergency alarms	# of alarms installed, % change before/after
	Improved seating for babies/children	# of vehicles with improved seating, % change before/after
	Waiting areas with protection from elements	# of benches, covering, etc., % of total stops/stations with amenities at various levels, % change before/after

Decision-making factor	Hybrid demand response/fixed transit (H)	
	Tactic	**Result**
Education & awareness	Awareness campaigns about existing/new options (i.e., MARTA/Atlanta region transit marketing, Lyft campaign in Atlanta)	% change in ridership figures by total, HST, and self-locating populations
	Training on day-to-day usage of the options (i.e., DisabilityLink's travel training program, CCT's Get on the Bus Gus)	% change in ridership figures by total, HST, and self-locating populations
Home location	Design new/expand existing services to reach more homes of HST populations (concentrations or evenly distributed)	% of HST population with access to service, % change before/after
	Education for home renters/buyers about locating near these options including savings (e.g., Arlington, VA commuter services), Outcome:	% of population self-locating near option within walk/bike/drive shed
	Provide pick-up at the door of the home rather than the curb	qualitative improvement in policy
Destinations	Design new/expand existing services to reach more destinations for HST populations	# of HST destinations in service area, classified by type (e.g., employment, schools/universities, medical/health, daily errands, places of worship, social services, recreation/entertainment, etc.), % change before/after
	Provide drop-off at the door of the destination rather than the curb	qualitative improvement in policy
	Education for employers/business owners/schools/etc. about locating near these options including business case	% of destinations self-locating near option within walk/bike/drive shed
	Increase ADA accessibility for vehicles	% of vehicles that are 100% ADA accessible (or other %), % change before/after
	Increase wheelchair accessible seating in vehicle	# seat options added, % change before/after

Disability factors	Reduced limitations on companion riders	qualitative improvement in policy
	Reduced limitations on service animals	qualitative improvement in policy
	Increase ADA accessibility for stops/stations	% of stations/stops that are 100% ADA accessible (or other %), % change before/after
	Increase ADA accessibility within walk/bike shed of stops/stations	% miles of ADA accessible walk/bike shed of stops/stations, % change before/after
Income factors	Cost of pass per person	Total reduction amount per trip/pass option
	Companion rider benefits	qualitative improvement in policy (e.g. rides at reduced rate/free)
	Cost of pass per family	Total reduction amount per trip/pass option/family
	Discounts for HST populations	qualitative improvement in policy (e.g., expanding to include veterans like CTA/Chicago, reducing older adult age limit)
	Increased flexibility for monthly pass payment	qualitative improvement in policy (e.g., allowing 2 payments/month to align with work payment schedule for those living paycheck to paycheck)
	N/A - lack of fixed places for pick-up/drop-off	
	Expand service hours to accommodate range of job types	qualitative change in service hour expansion
Linguistic factors	Increase in visual translated materials/information (including online)	# of materials/informational elements translated per language, % elements of total per language, % change before/after
	Increase in audible translated materials/information (including online)	# of materials/informational elements translated per language, % change before/after
	Increase in total languages covered	# of languages total, at various levels of % of materials/informational elements translated
	Drivers/other consumer-facing staff speaking languages other than English	# of staff members, % change before/after

Travel time	Trip distance reduction tactics (route optimization for on-demand requests, etc.)	Tap in/outs indicating complete trip with multiple legs % change before/after
	Trip time/delay reduction tactics (avoidance of traffic congestion, mechanical failures, driver timeliness, etc.)	Tap in/outs indicating complete trip duration with % change before/after
Safety & comfort	Improved lighting (nighttime visibility)	# of lighting improvements installed, % of total stops/stations with lighting at various levels, % change before/after
	Improved police/security team presence	Qualitative improvements
	Apps to report suspicious activity (e.g., MARTA's see and say)	Qualitative app engagement
	Emergency alarms	# of alarms installed, % change before/after
	Improved seating for babies/children	# of vehicles with improved seating, % change before/after
	Waiting areas with protection from elements	# of benches, covering, etc., % of total stops/stations with amenities at various levels, % change before/after

Decision-making factor	Specialized Services (Ss)	
	Tactic	Result
Education & awareness	Awareness campaigns about existing/new options (i.e., MARTA/Atlanta region transit marketing, Lyft campaign in Atlanta)	% change in ridership figures by total, HST, and self-locating populations
	Training on day-to-day usage of the options (i.e., DisabilityLink's travel training program, CCT's Get on the Bus Gus)	% change in ridership figures by total, HST, and self-locating populations
	Establish methods to ensure state/federal options (e.g, DHS, DCH) are maximized (e.g., social workers, mobility managers, etc.)	Tracking of before/after cases, # of users made aware of previously unknown options
	Offer new/expand existing volunteer driver and/or voucher services to reach more homes of HST populations	% of HST population served through volunteer driver and/or voucher services, % change before/after
Home location	Design new/expand existing demand-response service areas to reach more homes of HST populations (concentrations or evenly distributed)	% of HST population with demand-response service area within walk/bike/drive sheds, % change before/after
	(IM) Consider viability for specialized service drop off/pick up at nearby transit stop	(IM) Number of transit stops with specialized service access potential, % change before/after
	Provide pick-up at the door of the home rather than the curb	qualitative improvement in policy
	Education for home renters/buyers about locating near these options including savings (e.g., Arlington, VA commuter services)	% of population self-locating near option within walk/bike/drive shed
Destinations	Offer new/expand existing volunteer driver and/or voucher services to reach more destinations for HST populations	# of HST destinations in service area, classified by type (e.g., employment, schools/universities, medical/health, daily errands, places of worship, social services, recreation/entertainment, etc.), % change before/after
	Provide drop-off at the door of the destination rather than the curb	qualitative improvement in policy
	(IM) Consider viability for specialized service drop off/pick up at nearby transit stop	(IM) Number of transit stops with specialized service access potential, % change before/after
	Education for employers/business owners/schools/etc. about locating near these options including business case	% of destinations self-locating near option within walk/bike/drive shed
	Increase ADA accessibility for vehicles	% of vehicles that are 100% ADA accessible (or other %), % change before/after
	Increase wheelchair accessible seating in vehicle	# seat options added, % change before/after
Disability factors	Reduced limitations on companion riders	qualitative improvement in policy
	Reduced limitations on service animals	qualitative improvement in policy
	Increase ADA accessibility for stops/stations	% of stations/stops that are 100% ADA accessible (or other %), % change before/after
	Increase ADA accessibility within walk/bike shed of stops/stations	% miles of ADA accessible walk/bike shed of stops/stations, % change before/after
	Cost of pass per person	Total reduction amount per trip/pass option
	Companion rider benefits	qualitative improvement in policy (e.g. rides at reduced rate/free)
	Cost of pass per family	Total reduction amount per trip/pass option/family
	Discounts for HST populations	qualitative improvement in policy (e.g., expanding to include veterans like CTA/Chicago, reducing older adult age limit)

Income factors	Increased flexibility for monthly pass payment	qualitative improvement in policy (e.g., allowing 2 payments/month to align with work payment schedule for those living paycheck to paycheck)
	Expand service hours to accommodate range of job types	qualitative change in service hour expansion
	Expand allowable trip purposes (e.g., from medical only to medical + work)	qualitative change in allowable trip purposes
Linguistic factors	Increase in visual translated materials/information (including online)	# of materials/informational elements translated per language, % elements of total per language, % change before/after
	Increase in audible translated materials/information (including online)	# of materials/informational elements translated per language, % change before/after
	Increase in total languages covered	# of languages total, at various levels of % of materials/informational elements translated
	Drivers/other consumer-facing staff speaking languages other than English	# of staff members, % change before/after
Travel time	Trip distance reduction tactics (route optimization for on-demand requests, etc.)	Tap in/outs indicating complete trip with multiple legs % change before/after
	Trip time/delay reduction tactics (avoidance of traffic congestion, mechanical failures, driver timeliness, etc.)	Tap in/outs indicating complete trip duration with % change before/after
Safety & comfort	Improved lighting (nighttime visibility)	# of lighting improvements installed, % of total stops/stations with lighting at various levels, % change before/after
	Improved police/security team presence	Qualitative improvements
	Apps to report suspicious activity (e.g., MARTA's see and say)	Qualitative app engagement
	Emergency alarms	# of alarms installed, % change before/after
	Improved seating for babies/children	# of vehicles with improved seating, % change before/after
	Waiting areas with protection from elements	# of benches, covering, etc., % of total stops/stations with amenities at various levels, % change before/after

Decision-making factor	Vanpool (V)	
	Tactic	Result
Education & awareness	Awareness campaigns about existing/new options (i.e., MARTA/Atlanta region transit marketing, Lyft campaign in Atlanta)	% change in ridership figures by total, HST, and self-locating populations
	Training on day-to-day usage of the options (i.e., DisabilityLink's travel training program, CCT's Get on the Bus Gus)	% change in ridership figures by total, HST, and self-locating populations
Home location	Encourage vanpool formation to reach more homes of HST populations (concentrations or evenly distributed)	% of HST population served through vanpools, % change before/after
	(IM) Consider viability for vanpool drop off/pick up at nearby transit stop	(IM) Number of transit stops with vanpool access potential, % change before/after
	Education for home renters/buyers about locating near these options including savings (e.g., Arlington, VA commuter services)	% of population self-locating near option within walk/bike/drive shed
Destinations	Encourage vanpool formation to reach more destinations for HST populations (primarily employment-related)	# of HST destinations reached through vanpools, classified by type (primarily employment-related), % change before/after
	(IM) Consider viability for vanpool drop off/pick up at nearby transit stop	(IM) Number of transit stops with vanpool access potential, % change before/after
	Education for employers/business owners/schools/etc. about locating near these options including business case	% of destinations self-locating near option within walk/bike/drive shed
	Increase ADA accessibility for vehicles	# and/or % of vehicles that are 100% ADA accessible (or other %), % change before/after

Disability factors	Increase wheelchair accessible seating in vehicle	# seat options added, % change before/after
	Reduced limitations on companion riders	qualitative improvement in policy
	Reduced limitations on service animals	qualitative improvement in policy
Income factors	N/A - Negotiated with vanpool group	
Linguistic factors	Increase in visual translated materials/information (including online)	# of materials/informational elements translated per language, % elements of total per language, % change before/after
	Increase in audible translated materials/information (including online)	# of materials/informational elements translated per language, % change before/after
	Increase in total languages covered	# of languages total, at various levels of % of materials/informational elements translated
	Drivers/other consumer-facing staff speaking languages other than English	# of staff members, % change before/after
Travel time	Trip distance reduction tactics (route optimization based on riders, etc.)	Distance before/after, % change
	Trip time/delay reduction tactics (avoidance of traffic congestion, mechanical failures, driver timeliness, etc.)	Time before/after, % change
Safety & comfort	N/A - discretion of vanpool group	

Decision-making factor	Carpool (C)	
	Tactic	Result
Education & awareness	Awareness campaigns about existing/new options (i.e., MARTA/Atlanta region transit marketing, Lyft campaign in Atlanta)	% change in ridership figures by total, HST, and self-locating populations
	Training on day-to-day usage of the options (i.e., DisabilityLink's travel training program, CCT's Get on the Bus Gus)	% change in ridership figures by total, HST, and self-locating populations
Home location	Encourage carpool formation to reach more homes of HST populations (concentrations or evenly distributed)	% of HST population served through carpools, % change before/after
	(IM) Consider viability for carpool drop off/pick up at nearby transit stop	(IM) Number of transit stops with carpool access potential, % change before/after
	Education for home renters/buyers about locating near these options including savings (e.g., Arlington, VA commuter services)	% of population self-locating near option within walk/bike/drive shed
Destinations	Encourage carpool formation to reach more destinations for HST populations (primarily employment-related)	# of HST destinations reached through carpools, classified by type (primarily employment-related), % change before/after
	(IM) Consider viability for carpool drop off/pick up at nearby transit stop	(IM) Number of transit stops with carpool access potential, % change before/after
	Education for employers/business owners/schools/etc. about locating near these options including business case	% of destinations self-locating near option within walk/bike/drive shed
	Increase ADA accessibility for vehicles	# and/or % of vehicles that are 100% ADA accessible (or other %), % change before/after

Disability factors	Increase wheelchair accessible seating in vehicle	# seat options added, % change before/after
	Reduced limitations on companion riders	qualitative improvement in policy
	Reduced limitations on service animals	qualitative improvement in policy
Income factors	N/A - Negotiated with carpool group	
Linguistic factors	Increase in visual translated materials/information (including online)	# of materials/informational elements translated per language, % elements of total per language, % change before/after
	Increase in audible translated materials/information (including online)	# of materials/informational elements translated per language, % change before/after
	Increase in total languages covered	# of languages total, at various levels of % of materials/informational elements translated
	Drivers/other consumer-facing staff speaking languages other than English	# of staff members, % change before/after
Travel time	Trip distance reduction tactics (route optimization based on riders, etc.)	Distance before/after, % change
	Trip time/delay reduction tactics (avoidance of traffic congestion, mechanical failures, driver timeliness, etc.)	Time before/after, % change
Safety & comfort	N/A - discretion of carpool group	

Decision-making factor	Taxi/TNC (T)	
	Tactic	Result
Education & awareness	Awareness campaigns about existing/new options (i.e., MARTA/Atlanta region transit marketing, Lyft campaign in Atlanta)	% change in ridership figures by total, HST, and self-locating populations
	Training on day-to-day usage of the options (i.e., DisabilityLink'ss travel training program, CCT's Get on the Bus Gus)	% change in ridership figures by total, HST, and self-locating populations
Home location	Encourage local drivers for TNCs to increase local supply	Increased availability of local TNC drivers, increased likelihood of pick-up, reduced wait times for local users of TNC, % change before/after
	(IM) Consider viability for TNC drop off/pick up at nearby transit stop	(IM) Number of transit stops with TNC access potential, % change before/after
	Education for home renters/buyers about locating near these options including savings (e.g., Arlington, VA commuter services)	% of population self-locating near option within walk/bike/drive shed
Destinations	N/A (able to go anywhere)	
	(IM) Consider viability for TNC drop off/pick up at nearby transit stop	(IM) Number of transit stops with TNC access potential, % change before/after
	Education for employers/business owners/schools/etc. about locating near these options including business case	% of destinations self-locating near option within walk/bike/drive shed
Disability factors	Increase ADA accessibility for vehicles	# and/or % of vehicles that are 100% ADA accessible (or other %), % change before/after
	Increase wheelchair accessible seating in vehicle	# seat options added, % change before/after
	Reduced limitations on companion riders	qualitative improvement in policy
	Reduced limitations on service animals	qualitative improvement in policy
Income factors	(IM) Subsidy for trips made to/from transit stop/station (e.g., Pinellas County)	(IM) % reduction/$ amount reduction in cost
	N/A - private company pricing structure, discounts, etc.	
Linguistic factors	Increase in visual translated materials/information (including online)	# of materials/informational elements translated per language, % elements of total per language, % change before/after
	Increase in audible translated materials/information (including online)	# of materials/informational elements translated per language, % change before/after
	Increase in total languages covered	# of languages total, at various levels of % of materials/informational elements translated
	Drivers/other consumer-facing staff speaking languages other than English	# of staff members, % change before/after
Travel time	N/A - dependent on traffic congestion	
Safety & comfort	N/A - pickup at discretion of user	

Decision-making factor	Bicycling (B)	
	Tactic	Result
Education & awareness	Awareness campaigns about existing/new options (i.e., MARTA/Atlanta region transit marketing, Lyft campaign in Atlanta)	% change in ridership figures by total, HST, and self-locating populations
	Training on day-to-day usage of the options (i.e., DisabilityLink's travel training program, CCT's Get on the Bus Gus)	% change in usage figures by total, HST, and self-locating populations
Home location	Design new/expand existing cycling routes to reach more homes of HST populations (concentrations or evenly distributed)	% of total miles of cycling routes connected to homes of HST populations, % change before/after
	(IM) Connect cycling routes with transit stops	(IM) % of total miles of cycling routes connected with transit, % change before/after
	Education for home renters/buyers about locating near these options including savings (e.g., Arlington, VA commuter services)	% of population self-locating near option within walk/bike/drive shed
Destinations	Design new/expand existing cycling routes to reach more destinations for HST populations	# of HST destinations along routes, classified by type (e.g., employment, schools/universities, medical/health, daily errands,
	(IM) Connect cycling routes with transit stops	(IM) % of total miles of cycling routes connected with transit, % change before/after
	Education for employers/business owners/schools/etc. about locating near these options including business case	% of destinations self-locating near option within walk/bike/drive shed
Disability factors	Dedicated, protected, and well marked routes that increase usability (especially for those with cognitive/mental/visual impairments)	% of total miles of cycling routes with such infrastructure, % change before/after
	Route widths and turn room that allow for hand cycles (common for wheelchair users)	% of total miles of cycling routes with such infrastructure, % change before/after

Income factors	N/A - No cost to use infrastructure	
Linguistic factors	Increase in multi-lingual or symbolic visual signage	# of materials/informational elements translated per language, % elements of total per language, % change before/after
	Increase in total languages covered	# of languages total, at various levels of % of materials/informational elements translated
Travel time	Increase in dedicated cycling lanes (to avoid being in same traffic as car lanes)	% of total miles of cycling routes with such infrastructure, % change before/after
	Increase in greenways (e.g., Beltline) to keep cycling traffic	% of total miles of cycling routes with such
Safety & comfort	Improved lighting (nighttime visibility)	# of lighting improvements installed, % of total stops/stations with lighting at various levels, % change before/after
	Improved police/security team presence	Qualitative improvements
	Emergency alarms	# of alarms installed, % change before/after

Decision-making factor	Using sidewalks/crosswalks (S)	
	Tactic	Result
Education & awareness	Awareness campaigns about existing/new options (i.e., MARTA/Atlanta region transit marketing, Lyft campaign in Atlanta)	% change in ridership figures by total, HST, and self-locating populations
	Training on day-to-day usage of the options (i.e., DisabilityLink's travel training program, CCT's Get on the Bus Gus)	% change in usage figures by total, HST, and self-locating populations
Home location	Design new/expand existing sidewalks to reach more homes of HST populations (concentrations or evenly distributed)	% of total miles of sidewalks connected to homes of HST populations, % change before/after
	(IM) Connect sidewalks with transit stops	(IM) % of total miles of sidewalks connected with transit, % change before/after
	Education for home renters/buyers about locating near these options including savings (e.g., Arlington, VA commuter services)	% of population self-locating near option within walk/bike/drive shed
Destinations	Design new/expand existing sidewalks to reach more destinations for HST populations	# of HST destinations along sidewalks, classified by type (e.g., employment, schools/universities, medical/health, daily errands, places of worship, social services, recreation/entertainment, etc.), % change before/after
	(IM) Connect sidewalks with transit stops	(IM) % of total miles of sidewalks connected with transit, % change before/after
	Education for employers/business owners/schools/etc. about locating near these options including business case	% of destinations self-locating near option within walk/bike/drive shed
Disability factors	Intersection improvements (e.g., HAWK signals, audible signals)	# and % of total intersections with such improvements, % change before/after
	Street improvements (e.g., median resting places)	% of total miles of such improvements, % change before/after
	Prioritized repairs	% of total miles of sidewalks with prioritized repairs, % change before/after, repair speed (miles/time)
	Preventive maintenance	% of total miles of sidewalks with repairs, % change before/after
	Other intersection improvements that decrease tension with drivers/right-of-way conflicts (e.g., pedestrian signals change automatically with car traffic without pushing button)	# and % of total intersections with such improvements, % change before/after
Income factors	N/A - No cost to use infrastructure	
Linguistic factors	Increase in multi-lingual or symbolic visual signage	# of materials/informational elements translated per language, % elements of total per language, % change before/after
	Increase in audible translated materials (at intersections)	# of materials/informational elements translated per language, % change before/after
	Increase in total languages covered	# of languages total, at various levels of % of materials/informational elements translated
Travel time	Signal prioritization at intersections	# of intersections where pedestrians are prioritized, % of total, % change before/after
Safety & comfort	Improved lighting (nighttime visibility)	# of lighting improvements installed, % of total stops/stations with lighting at various levels, % change before/after
	Improved police/security team presence	Qualitative improvements
	Emergency alarms	# of alarms installed, % change before/after

Decision-making factor	Telework/Teleconnect (T)	
	Tactic	Result
Education & awareness	Awareness campaigns about existing/new options (i.e., MARTA/Atlanta region transit marketing, Lyft campaign in Atlanta)	% change in ridership figures by total, HST, and self-locating populations
	Training on day-to-day usage of the options (i.e., DisabilityLink's travel training program, CCT's Get on the Bus Gus)	% change in usage figures by total, HST, and self-locating populations
Home location	Expansion of home infrastructure to facilitate (e.g., internet connection, etc.)	# or % of homes with improved infrastructure, change before/after
Destinations	Education for destinations (e.g., employers, business owners, medical facilities, stores) about teleconnect options	# or % of destinations with teleconnect option, # or % with marketing of option, change before/after
Disability factors	Disability-specific elements for teleconnect (e.g., online ADA compliance)	# or % of disability-specific features added, change before/after
Income factors	Income-specific elements for teleconnect (e.g., income sensitive internet pricing)	# or % of income-specific features added, change before/after
Linguistic factors	Language-specific elements for teleconnect (e.g., non-English language translations for online resources)	# or % of language-specific features added, change before/after
Travel time	N/A	
Safety & comfort	N/A	

SECTION 3: Regional Collaboration

Some regional solutions are not possible only at the local level or only by one organization, requiring high levels of collaboration between jurisdictions and organizations. Some non-SOV options may function well at the local level, such as cycling and walking, but they also benefit from regional connections that facilitate longer connections (e.g., regional cycling networks) or additional impact (e.g., strategic improvements in sidewalk/crosswalks that improve accessibility of the regional transit system). There are also non-SOV options that are largely provided by the private sector such as transportation network companies (e.g., Lyft/Uber). Some options are driven by employer and employee relationships (i.e., telework) and ability to use online services as a replacement for brick and mortar destinations (i.e., teleconnect). Other options, by the nature of the distances/jurisdictions they span and wide user rates, require a regional approach as a base function. Of all the non-SOV options explained in the Plan, three require the highest levels of collaboration to make them successful: 1) fixed route/guideway public transit (i.e., bus and train), 2) specialized services, and 3) hybrid demand-response/ fixed transit.

By comparing these options with the entities that operate them, two reveal themselves to currently have many entities involved. Fixed route/guideway public transit (i.e., bus and train) has the six regional transit agencies as well as a few private providers (shuttle operators such as The Buc and the Atlantic Station shuttle) and universities (e.g., Emory, Georgia Tech, and Georgia State). While the private providers and universities serve more specific groups (typically community members/business patrons or students, respectively), the six regional transit agencies have large service areas for which they are responsible. In addition, these agencies are adjacent to each other at county lines and have passengers that may flow between multiple transit agencies to complete one trip. This prompts the need for a number of regional services to facilitate transfers between the individual transit agencies.

Specialized services has the largest number of entities involved of the three transportation options. The Plan explained different types of services that are included within specialized services such as ADA paratransit, vouchers, volunteer driver, and senior service programs. These individual specialized service types are not listed in the chart to focus on the variety of operating entities. Specialized services share a similarity with fixed route/guideway public transit – both have operating entities that are adjacent to each other at county lines. One big difference, however, is that specialized services often require eligibility of the person and possibly also the trip purpose. Eligibility of the person is often tied to personal characteristics explained in the Plan (e.g., disability, income, age, veteran status, and limited English proficiency). Eligibility of the trip is tied to priorities of the program such as getting people to medical appointments, work, social activities, etc. Some specialized services, such as ADA paratransit, have no trip purpose restrictions. ADA paratransit is a service that also may go into a further level of eligibility – conditional eligibility. This

		Operating Entity						
		Transit agency	Federal/state human service agency	County-based human service agency	Regional/local human service agency	County-based agency	Private transportation providers	Other entities
Transportation Option	Fixed route/guideway public transit	Atlanta Streetcar, CATS, CobbLinc, GCT, GRTA, and MARTA					Private shuttle operators	Universities
	Specialized services	CATS, CobbLinc, GCT, and MARTA	DHS, DCH (Medicaid/Medicare), and VA	Senior services in Cherokee, Clayton, Cobb, DeKalb, Fayette, and Fulton counties, Disability & senior services in Douglas, Gwinnett, and Rockdale counties	Community Services (CPACS), Disability Link, ICARE, All About Developmental Disabilities (AADD), Jewish Family and Career Services, and Jewish Federation of Greater Atlanta	Bartow, Cherokee, Coweta, Dawson, Hall, Henry, Forsyth, and Paulding		
	Hybrid demand-response/ fixed transit	CobbLinc						

Source: ARC

means that while the person is eligible, all their trips may not be if it is decided that a fixed route option is possible for that person on that particular trip. For instance, a fixed route trip may include walking 5 minutes before and after using the transit route. The person may be able to walk without great difficulty for up to 10 consecutive minutes. In this situation, the transit agency operating ADA paratransit may elect to not provide an ADA paratransit trip, instead requesting that the person take the fixed route option.

Eligibility is the big separating factor between fixed route/guideway public transit and specialized services, adding an extra level of complexity within the Atlanta region specialized services system. A person can be eligible for one, two, or more services across various agencies at the federal, state, and local levels. There may also be overlap in trip eligibility (e.g., acceptance of medical trips is common across many services). However, there is no database that keeps track of the eligibility of Atlanta region residents across all specialized services. There are few resources that help Atlanta region residents see, from the consumer perspective, all the services at a glance so they can follow up on potential eligibility. Two services in the Atlanta region serve this specific function – the Aging and Disability Resource Connection (ADRC, branded as Agewise Connection)[1] and SimplyGetThere.org. More details are provided below on these services.

Organizations can work towards regional coordination through the application of specific tactics. While other sections of the Plan have focused on highly local improvements, regional coordination requires higher levels of connectivity and integration between separate organizations. Due to that requirement, these tactics can be more challenging, but they can also be more impactful due to scope and the number of people affected.

But why would regional coordination make the situation better? There are two primary reasons, and there may be more. One is the customer experience. When a user is moving between multiple services with multiple providers, it can be very time-consuming, confusing, and frustrating to interact with the system. They often simply want to get where they need to go without a great deal of effort. The other reason is efficiency of time and money, which in this case means efficiency of government funding paid for through taxes (though sometimes also private donation, philanthropic investment, etc.). Making these services function more effectively as a system, depending on the tactic, can translate into money saved trip by trip.

The list below can be used by operating entities of fixed route/guideway public transit or specialized services to see what tactics might be relevant for their situation.

1 "AgeWise Connection-Atlanta area agency on aging"

			Relevancy		
	Tactic	Result	Fixed route	Specialized services	Both integrated
Education and awareness	Phone based services to pinpoint relevant options (e.g., options counselors)	# of calls, qualitative measurement of quality of call and resolution, qualitative ease of administrative burden	X	X	X
	Web based services to pinpoint relevant options	# of website visits, # new users, # returning users, # of trips planned, qualitative ease of administrative burden	X	X	X
	Travel training/travel ambassadors	# of people trained, # of people who switch to fixed route, etc. after training	X	X	X
Application process	Common application intake process	# of separate applications before vs. joint application after, qualitative assessment of quality of application before/after, qualitative ease of administrative burden	N/A	X	N/A
	Common eligibility determination process (e.g., in person functional assessments, personal/trip/conditional eligibility)	# of streamlined eligibility components, qualitative ease of administrative burden	N/A	X	N/A
	Common eligibility identification card	# of separate cards before vs. joint card after	N/A	X	N/A
Financial	Common fare structure rules (e.g., zone, distance, flat fee, etc.)	# of streamlined eligibility components	X	X	Unlikely due to difference in fare types
	Common procurement	# of separate procurements into one, cost savings, qualitative ease of administrative burden	X	X	X
Service agreements	Fleet/vehicle sharing	# vehicles shared, estimates of cost savings	X	X	X
	Contractual agreements for peak/overflow periods	estimates of cost savings, more on time arrivals, qualitative measurement of ability to meet demand	X	X	X
	Inter-agency trips with reciprocal transfer (i.e., client pays for 1 trip, not 2)	# of reciprocity agreements	X	N/A	N/A

	Inter-agency trips without transfer	# of trips facilitated, qualitative measurement after change	X	N/A	N/A
	Common service areas (e.g., one regional paratransit area without transfers)	estimates of cost savings, qualitative ease of administrative burden	X	X	X
	"Client sharing" in cases of dual/triple eligibility	estimates of cost savings	X	X	X
Legal and reporting	Commonly held insurance	cost savings on premium	X	X	X
	Common data collection and display methods	qualitative measurement of data sharing benefit	X	X	X
	Common reporting procedures	qualitative ease of administrative burden for streamlined reporting	X	X	X
Trip efficiencies	Offloading trips to lower capacity vehicles (e.g., taxis, TNCs)	estimates of cost savings	X	X	X
	Routing around key destinations (e.g., senior centers)	# of routes changed to accommodate, new trips facilitated/users added related to change	X	N/A	N/A
	Maximizing fixed route (even if for one part of 2 part trip)	# of processes (such as over phone/web) changed to prioritize fixed route options	X	X	X
Technology	Common route optimization/client scheduling software (or interoperability)	qualitative measurement of interoperability level, % of key functions possible between agencies, qualitative ease of administrative burden (duplicative work)	X	X	X
	Passenger updates on vehicle location	# of new real time data projects implemented, # of improvements to existing, # new users, # returning users, qualitative ease of administrative burden (less status request calls)	X	X	X

Current regional projects/programs

There have been a number of impactful projects in the region that have helped to increase regional coordination. Some of these projects are listed below.

Education and awareness

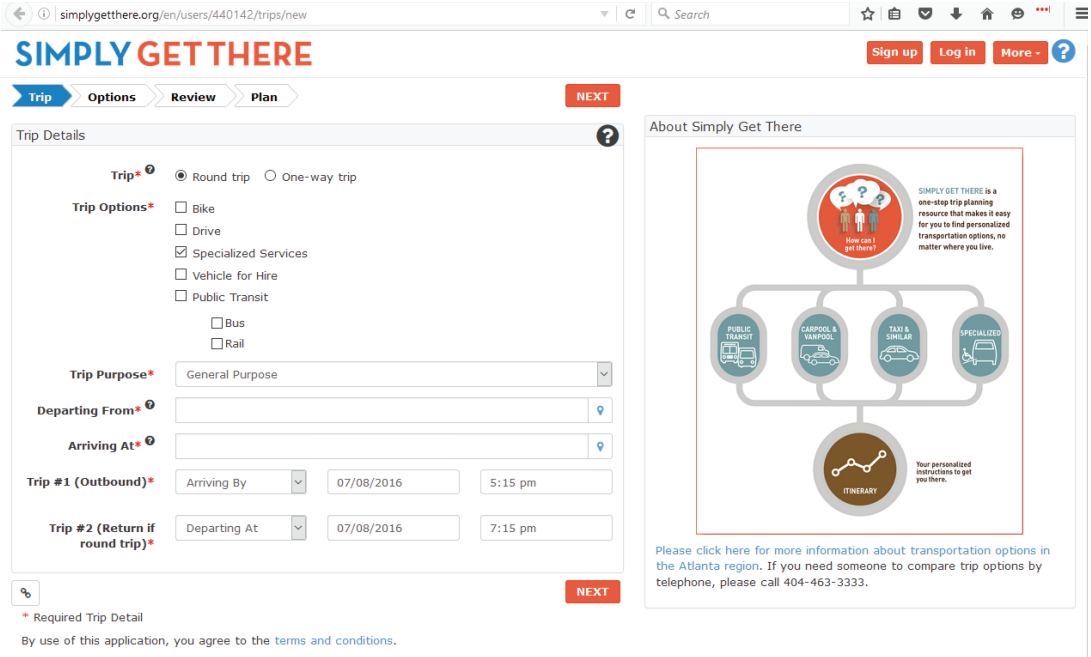
Simply Get There - the www.SimplyGetThere.org project funded through a Veterans Transportation and Community Living Initiative (VTCLI) grant of the Federal Transportation Administration (FTA) as part of their "One-Click/One-Call" initiative. Launched on March 2015, Simply Get There became the first comprehensive online trip planner for HST populations in the Atlanta region. It covers all the options explained above such as public transit, carpool/vanpool, specialized curb-to-curb services, pedestrian trips, cycling, and taxis/transportation network companies. Visitors to the website can be confident that all their options are displayed to select the appropriate trip. They will then receive information in order to get in contact with transportation providers to make the final arrangements for the trip. ARC was awarded a Mobility Services for All Americans (MSAA) grant by FTA in July 2015 to pursue a second phase of the Simply Get There project. If the website is not an option for a user, they can call the Aging and Disability Resource Connection ADRC) for assistance over the phone. This project includes a robust training and dissemination initiative, which includes sharing the website at public events and training users and caregivers and support staff who may work with users. To date ARC has worked with over 80 partner organizations and trained over 1,000 residents.

Atltransit.org – ARC has created and maintains ATLTransit, a regional transit information hub web application for transportation options not currently offered by existing trip planning applications. ATLTransit contains route information from all of the transit agencies in the region.

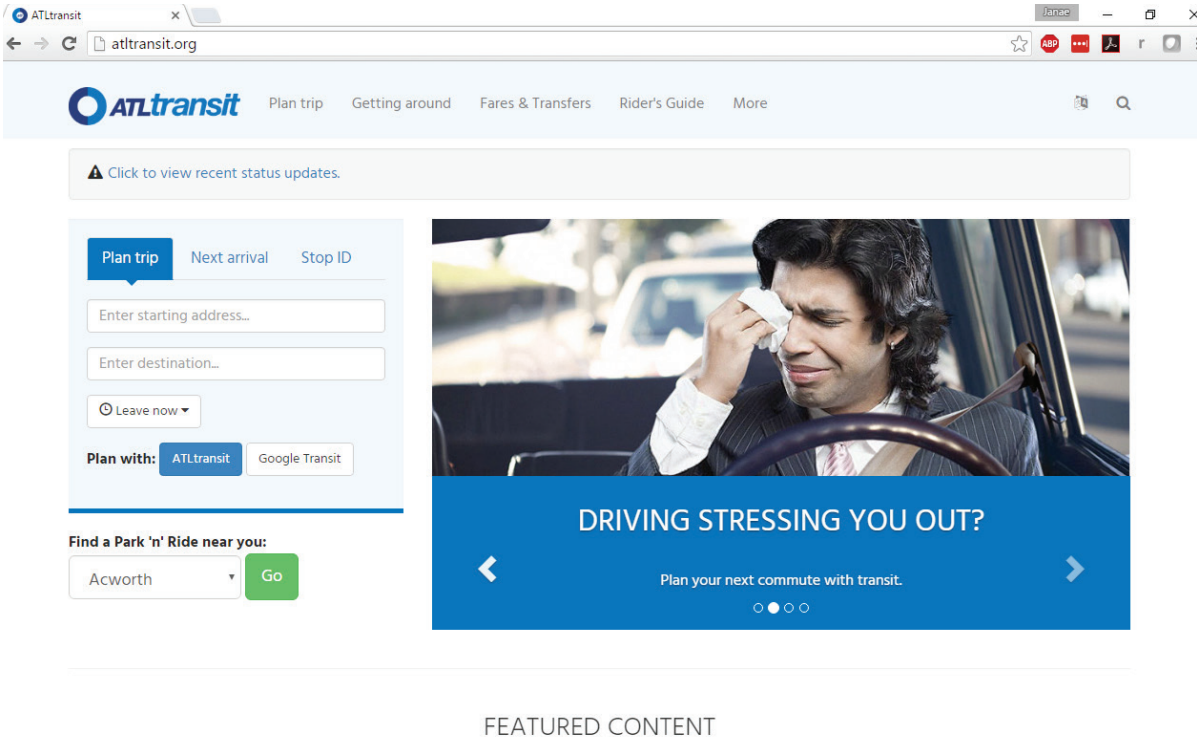
Aging and Disability Resource Connection (ADRC) – (from ARC's website) "Aging and Disability Resource Connections are entry points to long-term care supports and resources across the life-span. Now caregivers, family members and individuals with disabilities can find the public or private services they need by calling the Aging and Disability Resource Connection. ADRC resource specialists can help individuals with diverse needs including older persons, persons with disabilities, family members and caregivers, persons who would benefit from Options Counseling for long-term care/ support, professionals in the fields of healthcare, education, social services and advocacy, and local businesses concerned about the caregiving needs of their employees. One phone call opens the door to information about community resources (including transportation) for aging families with complex needs, grandparents raising grandchildren with disabilities and adults with physical or developmental disabilities."[2]

Bus Stop Signage – The Atlanta Regional Commission has managed the development of a regional bus stop signage design, as well as a strategy for

2 "Access to services"



Source: SimplyGetThere.org



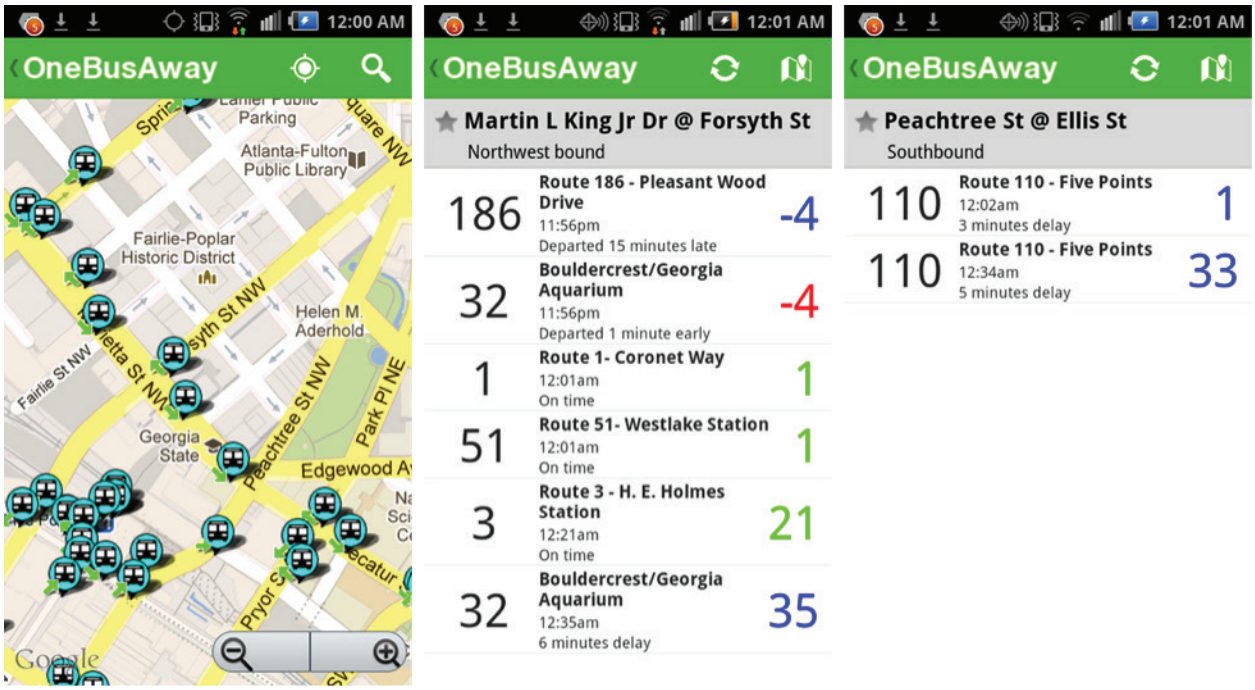
Source: ATLTransit.org

CobbLinc and MARTA's bus stops, as well as 80 stops also served by Xpress and Gwinnett County Transit in Downtown and Midtown Atlanta. The new signage will provide a universal brand for transit region-wide, while offering riders more detailed route, schedule and real-time information at every stop.

implementation. In 2017 the ARC, in conjunction with its regional transit partners, will embark on replacing over 10,000 bus stops signs in Clayton, Cobb, DeKalb and Fulton counties. This initiative covers all of

Regional Transit Marketing – The regional transit marketing project is the Atlanta region's first coordinated effort to market a "unified brand" of regional transit. The brand has been established through the atltransit.org website. This website highlights all the

Source: ARC



Source: OneBusAway

transit options in the region and provides a wide range of assistance and information to regional transit users, including transfers and fare payment between agencies. The marketing project had an initial phase in 2016, and there are plans to have additional phases in late 2016 and 2017. The primary goal of the first phase was to increase the awareness of regional transit as a viable option in the Atlanta region, and it targeted millennials (ages 20-32) who used transit infrequently or not at all.

One Bus Away - ARC has maintains the OneBusAway application created for the Atlanta Region containing real time data from our transit partners in the region. The application is available on the web and on android and IOS devices with the potential to connect with new technologies such as Amazon's Echo. OneBusAway is an open source software which other MPOs have an instance of and researchers can utilize.

Travel Training - Travel training is a strategy to train potential users of transit on how to plan trips and use the transit system. It is especially common for individuals with disabilities and older adults, but the concept can apply to any person who wants to become comfortable with transit. There are currently multiple agencies in the Atlanta region offering a travel training program. ARC has a travel training program for older adults and people with disabilities who are able to use fixed route transit but are unfamiliar or uncomfortable using it alone. ARC has a training curriculum that includes one-on-one and small group training and materials that can be adapted for a range of participants. ARC is actively seeking partner agencies to work with us on implementation of training in every county with transit.

Financial

Regional fare policy - The Atlanta region is currently served by the Breeze Card regional fare payment system, with MARTA managing this system on the region's behalf. Currently MARTA, Cobb, Gwinnett, Xpress, and the Atlanta Streetcar are Breeze participants. The Atlanta Regional Commission provides fare policy and coordination expertise to ensure continued ease of mobility for the 18 county region. Current and past projects have included a

Source: Breeze/Regional Transit Agencies

financial and programmatic review of the Breeze program, developing a regional fare product, as well as developing a mobile fare payment technology.

Service agreements/integration

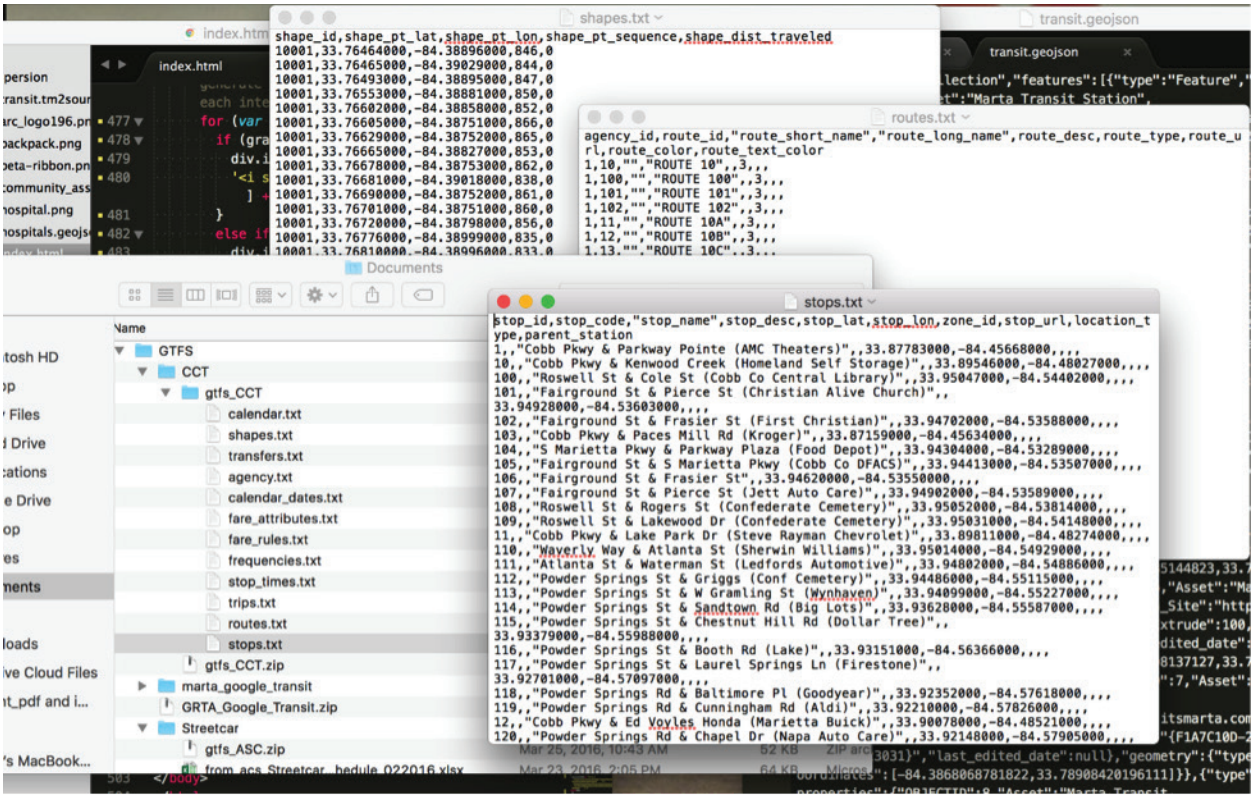
DeKalb County HST system - The Georgia Department of Human Services (DHS) funds transportation options for older adults and people with physical, cognitive, and developmental disabilities across the state in a program called coordinated transportation. ARC undertook the role of contractor for the program in DeKalb County on July 1, 2015. Managing this program enable ARC to strengthen its partnership with DHS and the County as all agencies work to improve the quality of service delivered to residents and to improve resource allocation.

FTA Section 5310 program - The FTA Section 5310 program provides funds to improve mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-dependent populations beyond traditional public transportation services and Americans with Disabilities Act (ADA) complementary paratransit services. Atlanta Regional Commission receives FTA Section 5310 funding from the Georgia Department of Human Services to distribute amongst the Atlanta Urbanized Area. ARC's overarching goal for the FTA Section 5310 program is to improve mobility for older adults and individuals with disabilities in the metro region through activities and projects that remove barriers to transportation services and expand mobility options. The criteria for selecting activities and projects funded through FTA Section 5310 are in part based on the priorities and recommendations from ARC's 2012-2013 Limited Update Coordinated Human Services Transportation (HST) Plan and ARC's Mobility Management Initiative. Funds mainly provide demand response and shuttle trips through county and non-profit providers.

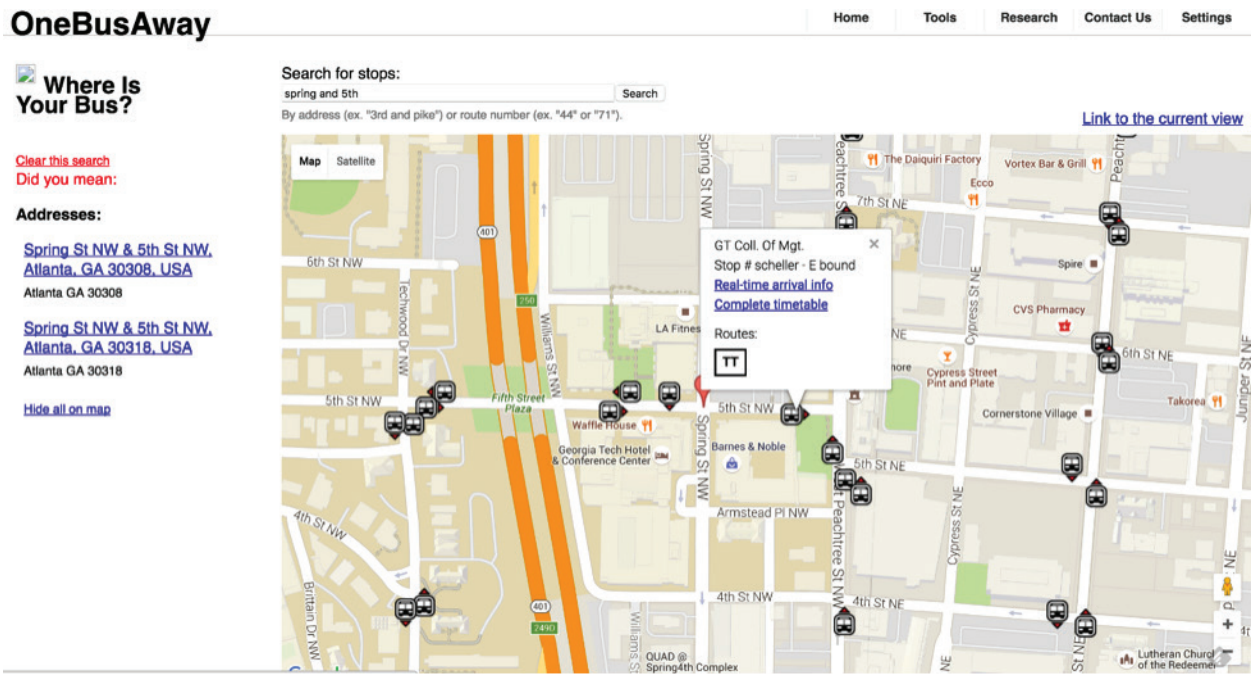
Technology

Regional static transit data – ARC maintains the General Transit Feed Specification (GTFS) data along with the region's transit agencies. In addition to using the data in applications at ARC such as SimplyGetThere.org and AtlTransit.org, the open data are also available for public download.[3]

3 "Existing regional transit system"



Source: Regional GTFS



Source: Regional GTFS RT

Regional real time transit data – ARC also maintains the GTFS Real Time (GTFS RT) data for the region's transit agencies. Real-time data provide vehicle positions, arrival estimates (trip updates), and service alerts. The data are used in applications at ARC such as OneBusAway.

SECTION 4: Potential funding options

As outlined in the Plan, HST spans a diversity of needs and a wide variety of transportation options. As such, pinpointing funding options can be a challenge. One way to approach this is to first establish which tactics are critical, and then research funding options pertaining to the tactics. While the list below is not a complete list of all potential funding options, it does illustrate the variety of funding types that could be considered.

- Federal Highway Administration (FHWA) Congestion Mitigation and Air Quality Improvement Program (CMAQ) - "The CMAQ program was implemented to support surface transportation projects and other related efforts that contribute air quality improvements and provide congestion relief."[4]
- FHWA Transportation Alternatives Program (TAP) – "The TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways."[5]
- FHWA Surface Transportation Program (STP) Urban – "The Surface Transportation Program (STP) provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals."[6]
- Federal Transit Administration (FTA) Section 5307 – "The (transit) funds may be used for any capital purpose eligible under 49 U.S.C. 5302(a)(1), including such activities

4 "Congestion Mitigation and Air Quality Improvement (CMAQ) Program"

5 "Transportation alternatives program (TAP) guidance"

6 "MAP-21 - fact sheets - surface transportation program (STP)"

as vehicle replacements, facilities renovation or construction, preventive maintenance, and mobility management."[7]

- Federal Transit Administration (FTA) FTA Section 5310 – "The purpose of the program is to improve mobility for seniors and individuals with disabilities by removing barriers to transportation service and expanding transportation mobility options… Eligible projects include both "traditional" capital investment and "nontraditional" investment beyond the Americans with Disabilities Act (ADA) complementary paratransit services."[8]
- Federal Transit Administration (FTA) FTA Section 5311 – "An eligible recipient may use the funding for capital, operating, and administrative expenses for public transportation projects that meet the needs of rural communities. Examples of eligible activities include: capital projects; operating costs of equipment and facilities for use in public transportation; and the acquisition of public transportation services, including service agreements with private providers of public transportation services."[9]
- Older Americans Act Title III – "Title III provides for formula grants to State agencies on aging, under approved State plans, to stimulate the development or enhancement of comprehensive and coordinated community-based systems resulting in a continuum of services to older persons with special emphasis on older individuals with the greatest economic or social need, with particular attention to low-income minority individuals."[10]

ARC identifies projects for implementation in the near/short-term through the Transportation Improvement Program (TIP). Long term projects (at least 20 years in the future) are identified in the Regional Transportation Plan (RTP). The TIP is a part of the RTP and connects specific funding sources with specific projects across the Atlanta region to be implemented. The current status of the TIP[11] and RTP[12] can be found on ARC's website. Furthermore, the RTP is the transportation component of the Atlanta region's comprehensive plan (called "the Atlanta Region's Plan"). This plan incorporates all of the Atlanta Regional Commission's (ARC) planning areas – transportation, community development, water resources, aging & health services and workforce development.[13]

7 "Urbanized area formula (section 5307)"

8 "Enhanced mobility of seniors & individuals with disabilities - section 5310"

9 "Formula grants for other than urbanized areas (5311)"

10 "Older Americans Act: Title III Regulations"

11 "Transportation improvement program (TIP)"

12 "Regional transportation plan"

13 "The Atlanta region's plan"