



# Fare-free Transit Service April 16, 2015



## Presentation Outline

- Fare-free System-wide
  - Definition
  - Purpose
  - Operational Parameters
  - Considerations for Utilization in the City of Gainesville
    - Cost-Benefit Implications
- Fare-free Zone
- Conclusions



## Fare-free System-wide

- *Definition*
  - A service where no fares are paid by passengers for any trip.
- *Purpose*
  - Expand mobility for all residents, especially those with limited finances.
  - Increase ridership and decrease dwell times.
  - Reduce auto congestion.
  - Negate the cost of fare collection.



## Fare-free System-wide (cont.)

- *Operational Parameters*
  - Sources of Funding
    - Local
      - General revenue fund
      - Transit-specific taxes (i.e., sales, parking, property, utility, payroll)
      - Community partnerships (i.e., University student fees , community donations)
      - Flexible road funding
    - Federal and state subsidies
      - For some programs, apportionment scales positively with ridership and negatively with the amount of fare revenue collected.



## Fare-free System-wide (cont.)

- *Considerations for Utilization in Gainesville*
  - Funding coordination with University of Florida (UF) and Santa Fe College (SF).
    - RTS would expect a sharp increase in ridership.
      - Transit agencies in university-dominated communities have reported between a 21% and 200% increase in non-student ridership after becoming fare-free.
      - 12% (1.27M) of RTS riders currently directly pay for transit.
      - RTS would expect between 0.3M and 2.5M new trips annually.
    - A change in the perception and consumption of public transit
      - Performance metrics less applicable.
      - Increased rates of vandalism and hooliganism.
      - Individuals staying on the bus without purpose.
      - Lack of public support for additional transit subsidization.
    - Operational challenges



## Fare-free System-wide (cont.)

- *Fixed Route Cost-Benefit Implications*
  - *Costs*
    - Existing Revenue Replacement = \$1M (fares, employee passes, time period passes)
    - Ridership Increase Costs = \$0.48M to \$18.3M (capital and operating)
      - Two ridership increase scenarios: 21% “minimum” and 200% “maximum” scenarios.
      - Four capacity variations (25%, 50%, 75%, and 100%): amount of new riders that require additional resources.
      - Operating expenses are estimated from our current expense per trip of \$2.09.
      - Capital expenses based on current trip to bus and support vehicle ratios.
  - Indirect Costs
    - Education/marketing program
    - Staff time to implement
    - Additional security
    - Additional buses to maintain current frequencies



## Fare-free System-wide (cont.)

- *Fixed Route Cost-Benefit Implications*
  - *Benefits*
    - Difficult to monetize and do not directly equate to funding
    - Personal automobile costs (annual cost of vehicle ownership is 10K/year)
      - Observed ridership increases, however, do not come from those opting to give up their personal vehicle.
    - Pass stock (<\$10K/year)
      - RTS does not have any staff dedicated exclusively to the collection of farebox revenue or farebox maintenance.
    - The amount of funding RTS receives from its primary source of federal funding would unlikely change.
    - It is unclear whether bus boarding times would improve to the point where operating cost savings could be realized.
      - If the program is a success, running times may even increase due to increased ridership.



## Fare-free System-wide (cont.)

- *Americans with Disabilities Act (ADA) Cost-Benefit Implications*

- *Costs*

- Existing Revenue Replacement = \$0.15M
  - In FY2014, MV Transportation provided >51K trips (69% ambulatory / 31% wheelchair).
- Ridership Increase Costs = \$8.7M to \$34.7M
  - RTS cannot deny valid ADA trips and cannot charge more than twice fixed route trip rate.
  - RTS currently allows ADA passengers to ride fixed route services for free to encourage its usage over the more expensive demand response services.
  - In FY2014, there were >600K fixed-route ADA trips.
  - Four scenarios (25%, 50%, 75%, and 100%) were considered which correspond with a certain share of ADA passengers switching from fixed route to demand response services.
  - Ridership growth costs were not considered since they would be dwarfed by the cost of individuals switching modes.
- Indirect Costs
  - Education/marketing program.
  - Staff time to implement.





## Fare-free System-wide (cont.)

- *Americans with Disabilities Act (ADA) Cost-Benefit Implications*
  - *Benefits*
    - Difficult to monetize and do not directly equate to funding.
    - Individuals who formerly paid for demand response services would retain this revenue.
    - Individuals who traveled by fixed route to avoid the demand response trip cost despite potential difficulties would now be able to travel in an easier manner.



## Fare-free Zone

- *Definition*
  - A service where trips that begin and end within a specific region do not require passenger fares.
- *Purpose*
  - Reduce automobile usage in an area that is often dense and congested with limited parking availability (typically a downtown).
    - Discussion based on Community Redevelopment Agency (CRA) definition of downtown.



## Fare-free Zone (cont.)

- *Operational Parameters*
  - Passenger Identification
    - Regardless of method, zonal fares introduce complexity, conflict, and passenger confusion.
      - Passengers pay as they alight: Passengers alight only through the front door and pay a fare if their trip did not both begin and end in the zone.
      - Passengers Pay as they board: When boarding passengers indicate if they are only traveling in the fare-free zone. After leaving the zone, driver confirms that all those that were supposed to pay did so.
  - Sources of Funding
    - Similar to system-wide mechanisms, though taxing strategy limited to those entities within the zone.



## Fare-free Zone (cont.)

- *Considerations for Utilization in Gainesville*
  - Strongly dependent on boundary.
  - Again, city would want to seek input from UF and SF.
  - Combatting fare evasion will increase driver-passenger conflict.
  - Gainesville lacks impetus behind why communities have implemented fare-free zones: lack of cheap parking and heavy traffic congestion.
  - Ridership based on 2013 Origin-Destination study that found 0.12% (1,555) of trips begin and end downtown.
    - RTS would expect between 326 and 3.1K new trips annually.



## Fare-free Zone (cont.)

- *Fixed Route Cost-Benefit Implications*
  - *Costs*
    - Existing Revenue Replacement = \$36K to \$81K (fares, employee passes, time period passes, and fare evasion)
    - Ridership Increase Costs = \$1.3K to \$16.8K (capital and operating)
      - Operating and capital costs were estimated in the same manner as they were for system-wide fare-free implementation.
      - Also, includes minimal cost for signage denoting fare-free bus stops.
    - Indirect Costs
      - Similar to a system-wide implementation but materialized at a smaller scale.



## Fare-free Zone (cont.)

- *Fixed Route Cost-Benefit Implications*
  - *Benefits*
    - Similar to a system-wide implementation but materialized at a smaller scale.



## Fare-free Zone (cont.)

- *Americans with Disabilities Act (ADA) Cost-Benefit Implications*
  - *Costs*
    - Existing Revenue Replacement = \$27
      - In FY2014, MV Transportation provided 9 trips entirely within the downtown boundary.
    - Ridership Increase Costs = \$1.5K to \$6.0KM
      - Operating and capital costs were estimated in the same manner as they were for system-wide fare-free implementation.
      - New paratransit trips was assumed to be proportional to the relative number of MV Transportation trips that occurred within the zone (0.017%)
    - Indirect Costs
      - Similar to a system-wide implementation but materialized at a smaller scale.



## Fare-free Zone (cont.)

- *Americans with Disabilities Act (ADA) Cost-Benefit Implications*
  - *Benefits*
    - Similar to a system-wide implementation but materialized at a smaller scale.





## Conclusions

- A number of communities have eliminated fares. Equally, a number of communities have attempted to eliminate fares only to reinstate them due to issues like budget shortfalls.
- Regardless of the merit of providing fare-free transit service, a dedicated funding source has to be identified to cover lost revenues and increased costs from new ridership.
- The majority of agencies operating fare-free have implemented a dedicated transit tax.



## Conclusions (cont.)

- Even when only considering the small fraction of riders that currently pay for service, system-wide implementation of fare-free service would cost millions of dollars.

	Fare-free System-wide		Fare-free Zone	
	Minimum	Maximum	Minimum	Maximum
	<b>Fixed Route Costs</b>			
Existing Revenue Replacement	\$1,056,622	\$1,056,622	\$35,644	\$80,624
New Operating Costs	\$138,989	\$5,294,834	\$170	\$6,486
New Capital Costs	\$341,737	\$13,018,566	\$1,296	\$16,826
<b>Sub-Total</b>	<b>\$1,537,349</b>	<b>\$19,370,022</b>	<b>\$37,111</b>	<b>\$103,936</b>
	<b>ADA Costs</b>			
Existing Revenue Replacement	\$154,527	\$154,527	\$27	\$27
New Operating Costs	\$4,640,749	\$18,562,997	\$810	\$3,240
New Capital Costs	\$4,042,646	\$16,170,585	\$706	\$2,822
<b>Sub-Total</b>	<b>\$8,837,922</b>	<b>\$34,888,109</b>	<b>\$1,543</b>	<b>\$6,090</b>
<b>Total</b>	<b>\$10,375,271</b>	<b>\$54,258,131</b>	<b>\$38,653</b>	<b>\$110,026</b>



## Conclusions (cont.)

- Implementing a fare-free service within a certain part of the community would cost less but the benefit is unclear.
- Under a fare-free system many efficiency metrics are no longer applicable. It then becomes challenging to determine the appropriateness of each service. This may be particularly problematic since transit will become viewed as “a right.”
- Case studies of other communities have shown that mode switch only occurs with service improvements that increase the parity between car and transit travel.



## Conclusions (cont.)

- Making transit service free does not in turn make it convenient. Many non-student areas have  $\geq 30$ -minute frequencies, short weekday spans, and even shorter or non-existent weekend spans.
- A peer comparison of 25 agencies found all primary RTS fare categories to be significantly cheaper with differences ranging from 10% to 82% depending on the fare.



## Questions/Comments