Establish EMBARK Fare Policy & Evaluate Fare Structure

Conceptual Options Workshops

April 24-25, 2017



Agenda

- □ Fare Study Goals & Objectives
- Workshop #1: Peer Fare Policies: Performance Metrics, Fare Products, Pricing, Fare Integration
- Workshop #2: Fare programs: Student, College, Low Income, and Employer Programs
- Workshop #3: Fare Collection Technology Alternatives, Trends, and Best Practices
- Workshop #4: Streetcar Fare Enforcement and Fare Collection Alternatives



Fare Study Goals & Objectives

Fare Study Goals & Objectives

Fare Study Goal

Develop fare principles for fare policies, and for setting and changing fares, and for fare payment and fare collection for all of the modes under the COTPA service umbrella, including fixed route bus, streetcar, paratransit, ferry, bike share, and parking.

Fare Study Objectives

- Develop a strategy for implementing the fare principles, including fare policies, guidance for setting fares and implementing fare changes. This strategy should provide rationale and justification for fare increases based on best practices.
- Consider opportunities to integrate different modes through a common fare system that provides seamless fare payment.
- Provide justification for regular adjustments to fares, based on criteria such as ridership, fare revenue, and farebox recovery targets.



Fare Policy Goals & Objectives

Fare Study Objectives Continued

- Consider opportunities to minimize on-board fare transactions that impact on-time performance.
- Result is a fare system that:
 - Provides choices for riders that are easy to understand and use,
 - Attracts new riders and additional trips from existing riders,
 - Assists operators in enforcing fares,
 - ☐ Is equitable,
 - ☐ Takes into consideration a rider's ability to pay,
 - Accommodates accounting and reporting needs, and
 - Incorporates transit industry best practices in fare technology.
- Develop a strategy for implementing fare payment and fare collection technologies that support the fare principles and recognize industry best practices and emerging trends/opportunities.



Workshop #1: Peer Fare Policies: Performance Metrics, Fare Products, Pricing, Fare Integration

Part I: Fixed Route

Workshop #1 Agenda

Part I: Fixed Route

- Peers
- Performance Metrics
- Fare Products
- Pricing
- Fare Integration
- Other Strategies



Peers

- ☐ Fares were reviewed for 11 peer transit agencies
 - Albuquerque
 - Colorado Springs
 - Des Moines
 - ☐ Fort Worth
 - □ Kansas City
 - ☐ Little Rock
 - Madison County
 - Nashville
 - Omaha
 - Tulsa
 - Wichita
- Additional peers included as applicable



Performance Metrics

- □ Performance indicators commonly used to evaluate the performance of transit agencies' fare policies include:
 - Cost per Boarding: operating cost/unlinked boardings
 - ☐ Farebox Recovery: fare revenue/operating cost
 - ☐ Subsidy per Boarding: (operating cost - fare revenue)/unlinked boardings
 - Average Fare per Boarding:
 - fare revenue/unlinked boardings
- □ Performance indicators were developed using FY2015 NTD data by mode:
 - Bus: motor bus/rapid bus/commuter bus
 - Streetcar
 - Paratransit: demand response/demand response taxi



Performance Metrics

- ☐ It is important to recognize that differences in operating, funding and regulatory environments, as well as agency goals and objectives, influence each agency's performance
- While it appears that EMBARK's bus fare policies have not performed as well as peers, it is difficult to draw conclusions from these indicators without more information about peer practices and conditions



Performance Metrics: Bus

City	Motor Bus	Cost per Boarding	Farebox Recovery	Subsidy per Boarding	Average Fare per Boarding
Oklahoma City	DO & PT	\$6.73	12.5%	\$5.89	\$0.84
Albuquerque	DO	\$3.29	9.3%	\$2.98	\$0.30
Colorado Spring	PT	\$3.82	23.4%	\$2.93	\$0.89
Des Moines	DO	\$4.65	21.5%	\$3.65	\$1.00
Fort Worth	DO & PT	\$4.82	12.7%	\$4.21	\$0.61
Kansas City	DO	\$5.00	13.5%	\$4.33	\$0.67
Little Rock	DO	\$5.44	13.6%	\$4.70	\$0.74
Madison County	PT	\$7.02	12.6%	\$6.14	\$0.89
Nashville	DO	\$4.75	23.9%	\$3.62	\$1.14
Omaha	DO	\$6.43	17.8%	\$5.29	\$1.14
Tulsa	DO & PT	\$4.68	19.8%	\$3.75	\$0.93
Wichita	DO	\$4.98	18.7%	\$4.05	\$0.93
Peer Avg		\$4.99	17.0%	\$4.15	\$0.84

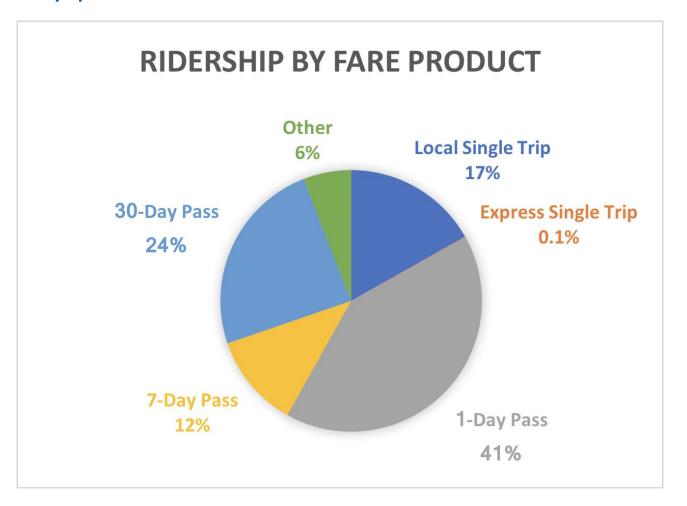
TECHNOLOGIES

Performance Metrics

- **Cost per Boarding**
 - Peer average (\$4.99) is lower than EMBARK's \$6.73
 - 10 peers report lower costs per boarding than EMBARK
- **Farebox Recovery**
 - EMBARK's 12.5% farebox recovery is lower than the peer average of 17.0%
 - Only Albuquerque's farebox recovery ratio is lower than EMBARK
 - 2 peers had farebox recovery ratios close to EMBARK's (Fort Worth at 12.7%; Madison County at 12.6%)
- **Subsidy per Boarding**
 - Peer average (\$4.15) is lower than EMBARK's \$5.89
- Average Fare per Boarding
- EMBARK's average fare matches the average fare for its peers at \$0.84

Fare Products

■ EMBARK offers single trip fares and 1-day, 7-day & 30-day passes





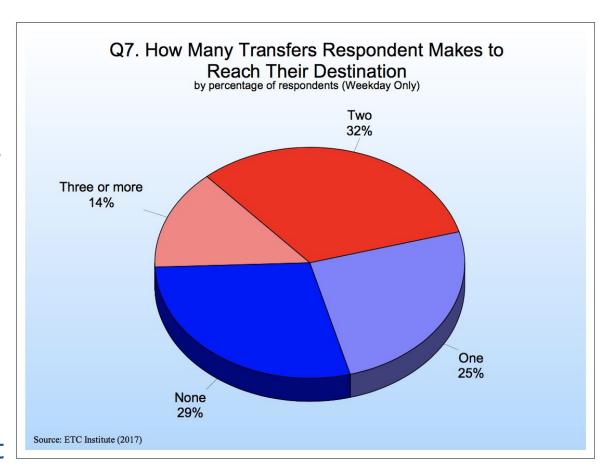
Fare Products

- Do current fare products meet rider needs?
- □ Are there other products and strategies that should be considered further?
- Common fare products for transit include:
 - ☐ Transfers: 5 peers offer
 - 2-hour passes: 1 peer offers
 - ☐ 1-day passes: 8 peers offer
 - □ 7-day passes: 6 peers offer
 - Monthly or Rolling Passes: all 11 peers offer
- Other products offered include:
 - Stored value & change cards: 4 peers



Fare Products - Transfers

- Peers evenly split
 between offering
 1-day pass or
 transfers (3 peers
 offer both)
- In 2010, EMBARK eliminated transfers and introduced 1-day pass
- 2/3 of riders must transfer to reach destination





Fare Products - Transfers

- ☐ Transfers support efficient service design, but require customers to transfer to complete their trip
- Not offering transfers can discourage ridership
- Day passes, especially if sold on-board and priced effectively, can provide an alternative to offering transfers
- Issuing transfers without an effective way to enforce transfers electronically can introduce the potential for fraud and customer/operator conflict
- Limiting transfers to electronic fare payment can have impacts on unbanked and underbanked riders without robust retail network



Recommendation: no change, consider in future as electronic fare payment matures

Fare Products - 7-Day Pass

- While all peers offer monthly passes, only 6 of 11 of peers offer a 7-day pass
- 7-day passes serve a rider need by increasing affordability of 30-day pass by reducing upfront payment
 - ☐ 7-day pass is currently priced at 3.5 x 1-day pass
 - 30-day pass is currently priced at 3.6 x 7-day pass
- Market segment using 7-day pass is small but seems to serve a rider need:
 - 12% of EMBARK boardings are paid with a 7-day pass
 - 2/3 of boarding paid with 1-day and 30-day passes (41% and 24% of ridership, respectively)



Fare Products - 7-Day Pass

- During interviews, the potential to no longer offer 7-day passes onboard was identified
 - While ~250k 1-day passes were sold onboard in FY16 accounting for ⅓ of 1-day passes purchased, only ~12k 7-day passes sold onboard in FY16
 - 7-day passes need to be purchased less frequently than1-day passes
 - □ 2/3 of riders must transfer to reach destination; service design requires most transfers to occur at transit center

Recommendation: consider no longer selling 7-day passes onboard; consider long-term potential to replace 7-day pass with fare capping (discussed on following slides)



Fare Products - Fare Capping

- Ability to pay towards the price of a 1-day, 7-day or monthly pass in single trip increments
- Fare capping implementations:
 - Day passes: Houston, SF Bay Area
 - Day & monthly passes: Portland (beta testing)
- ☐ For example, Houston METRO's single trip fare is \$1.25 and the Day Pass costs \$3:

1st boarding: \$1.25 charged

2nd boarding: \$1.25 charged

3rd boarding: \$0.50 charged

Total fare collected for day: \$3.00

Additional travel that day: free

Similar approach can be used to pay for a monthly pass,
 but over the course of a month



Fare Products - Fare Capping

Benefits

- Improved affordability of passes
- Equity by providing "best fare" to all riders
- Encourages riders to use transit more frequently

Challenges

- Requires electronic fare payment
- Riders must load stored value to smart card or mobile ticketing account
- Requires convenient access for riders to load stored value
- Complex business rules can increase implementation costs



Fare Products - Progressive Discount

- A variation of fare capping is offering progressive discounts
- Discount on fares increase as ride more frequently
- In addition to benefits of fare capping, provides discount to rider who does not ride frequently enough to achieve a monthly pass
- Progressive discount implementations:
 - GO Transit commuter rail in Toronto:

Rides 1-35: 11.15%

Rides 36-40: 87.75%

Rides 41+: 100%



Fare Products - Other Discount Strategies

- Other discount strategies:
 - Bonus trips: Houston METRO 5 FREE rides for every 50 paid rides
 - Load bonus: Minneapolis Metro Transit 10% load bonus (e.g., load \$20, get \$22 in fare value)

Recommendation: consider long-term strategy to provide discounts to frequent riders and encourage transit use



Pricing

- Pricing review focuses on fixed route bus and streetcar
- EMBARK also sets pricing for EMBARK Plus paratransit,
 Oklahoma River Cruises, Spokies Bike Share, and parking at 5 garages in downtown OKC



Pricing - Bus Single Ride

		Cash Fare	
City	Adult	Student	S/D/M
Oklahoma City	\$1.75	\$0.75	\$0.75
Albuquerque	\$1.00	\$0.35	\$0.35
Colorado Spring	\$1.75	\$0.85	\$0.85
Des Moines	\$1.75	\$0.75	\$0.75
Fort Worth	\$1.75	\$0.85	\$0.85
Kansas City	\$1.50	\$0.75	\$0.75
Little Rock	\$1.35	\$0.60	\$0.65
Madison County	\$1.50	\$0.75	\$0.75
Nashville	\$1.70	\$1.00	\$0.85
Omaha	\$1.25	\$1.00	\$0.60
Tulsa	\$1.50	\$1.00	\$0.75
Wichita	\$1.75	\$1.50	\$0.85

TECHNOLOGIES

Pricing - Bus Single Ride

- Basic stats for 11 peers
 - Average Adult Local Bus Fare = \$1.53
 - Average Youth Local Bus Fare = \$0.85
 - Average S/D/M Local Bus Fare = \$0.73
- Compared to its peers, Oklahoma City...
 - Charges the highest adult fare
 - 4 other peers also charge \$1.75
 - Charges a below average student fare
 - ☐ Charges the average S/D/M fare



Pricing - Bus Day Pass

	Day Pass Pricing		
City	Adult Fare	Adult Day Pass	Day Pass Multiple
Oklahoma City	\$1.75	\$4.00	2.3
Albuquerque	\$1.00	\$2.00	2.0
Colorado Spring	\$1.75	\$4.00	2.3
Fort Worth	\$1.75	\$3.50	2.0
Kansas City	\$1.50	\$3.00	2.0
Little Rock	\$1.35	\$3.75	2.8
Nashville	\$1.70	\$5.25	3.1
Tulsa	\$1.50	\$3.75	2.5
Wichita	\$1.75	\$5.00	2.9



Pricing - Bus Day Pass

- Compared to its peers, Oklahoma City...
 - \blacksquare Has a fare multiple = 2.3
 - Average fare multiple = 2.2
 - \square Range of rates = 2.0 to 3.1
- OKC charges a slightly above average multiple of its adult fare for a day pass



Pricing - Bus Monthly Pass

	Monthly Pass Pricing		
City	Adult	Monthly Pass	Multiple
Oklahoma City	\$1.75	\$50.00	28.6
Albuquerque	\$1.00	\$30.00	30.0
Colorado Spring	\$1.75	\$63.00	36.0
Des Moines	\$1.75	\$48.00	27.4
Fort Worth	\$1.75	\$60.00	34.3
Kansas City	\$1.50	\$50.00	33.3
Little Rock	\$1.35	\$36.00	26.7
Madison County	\$1.50	\$50.00	33.3
Nashville	\$1.70	\$84.00	49.4
Omaha	\$1.25	\$55.00	44.0
Tulsa	\$1.50	\$45.00	30.0
o u r ○ • • Wichita	\$1.75	\$55.00	31.4

TECHNOLOGIES

Pricing - Bus Monthly Pass

- Compared to its peers, Oklahoma City...
 - \Box Has a fare multiple = 28.6
 - Average fare multiple = 31.3
 - \square Range of rates = 26.7 to 49.4
- OKC charges a below average multiple of its adult fare for a monthly pass



Pricing - Streetcar

City	Local Bus Adult Fare	Streetcar Adult Fare
Kansas City	\$1.35	\$1.00
Little Rock	\$2.50	\$1.00
Atlanta	\$1.75	\$1.00
Cincinnati	\$2.50	Free
Dallas	\$1.75	\$1.00
Memphis	\$2.50	\$2.00
Portland	\$1.35	\$1.00
Salt Lake City	\$2.50	\$2.50
Seattle	\$2.50	\$2.25
Tacoma	\$2.75	Free until 2022
Tampa	\$2.00	\$2.50
Tucson	\$1.75	\$1.50
Washington D.C.	\$1.75	Free



Pricing - Streetcar

- Basic Stats for 13 Steetcar Peers
 - Average Local Bus Fare = \$2.08
 - Average Streetcar Fare = \$1.13
 - 3 peers have free streetcar service
- Local Bus compared to Streetcar
 - Local Bus Fare > Streetcar Fare: 11 peers
 - Local Bus Fare = Streetcar Fare: 1 peer
 - ☐ Local Bus Fare < Streetcar Fare: 1 peer
- □ Transfer Policies
 - Streetcar fare includes intermodal transfers: 2 peers
 - Intermodal passes include streetcar: 6 peers
 - □ Not applicable due to free streetcar: 3 peers

Pricing - Streetcar

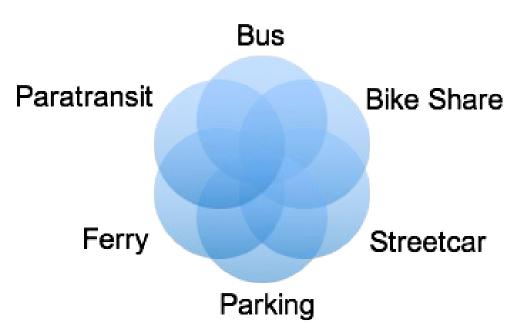
- Peers have found alternative strategies to fund streetcar beyond fares
 - □ Tacoma LINK streetcar is subsidized by the Downtown Business Improvement Area since 2014 when Sound Transit was considering a fare. The plan is to implement a fare with the opening of the 2022 extension
- Non-fare funding strategies for streetcar
 - General fund
 - Lodgers tax and/or hospitality fee
 - Convention center/arena fee
 - Parking fee to create a "park once"
 - Business improvement district



Recommendation: consider whether fare on streetcar is appropriate or alternative funding sources should be pursued

- Growing interest in cities nationwide in improving integration of multi-modal services
- Two strategies: universal payment option and/or integrated fare

Opportunities for fare integration





- Who are we trying to target with a new integrated fare product?
- What need are we trying to fill?
- What is the potential demand?
- Is integration feasible (short-term vs. long-term)?



Benefits

- Leverage multi-modal services under EMBARK service umbrella
- Serve last mile needs in downtown OKC
- Encourage desired behavior (e.g., park once)

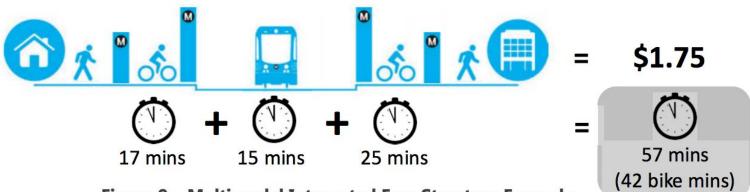


Figure 9 – Multimodal Integrated Fare Structure Example



Source: Regional Bike Share Implementation Plan for Los Angeles County, 2015

Challenges

- Market demand & viability
- Fare media and back-office integration
- Employer benefits for parking and transit (i.e., separation of funds into universal, parking & transit purses)
- Revenue allocation between modes and revenue requirements (i.e., bond requirements for parking garages)
- Bikeshare credit card requirement
- Funding limitations and resources to provide incentives and discounts

Reality...

Getting closer but not quite there yet



4 Types of Integration

- Common Payment Technology
- Linked or Integrated Mobile Apps
- Multi-Modal Incentives
- Common or Linked Payment Accounts

Mobility on Demand (MOD) Sandbox Program

- \$8 million in FY2016 in funding for Mobility on Demand public transportation projects
- Support transit agencies as they integrate new mobility tools like smart phone apps, bike- and car-sharing, and demand-responsive bus and van services



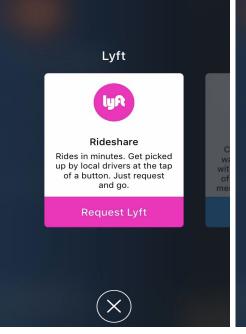
Common Payment Technology

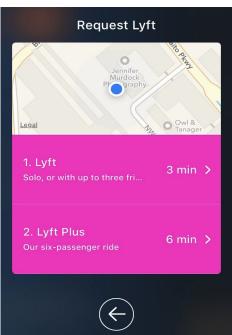
- LA Metro TAP card used as identifier to unlock bike share
 - Requires credit card for registration and to pay fees
 - Purchase Monthly and Flex passes online
 - Link TAP smart card with Metro Bike Share Pass
 - Use TAP card (or verify identity at the kiosk)
 - Long-term: include bike share in transfer policy?
- Minneapolis Metro Transit Go-To smart card can be used to unlock an HourCar shared car
- EZ Pass radio frequency identification tags used to pay highway tolls or transit smart cards can be used for parking at airports, garages, park-and-ride stations, etc.

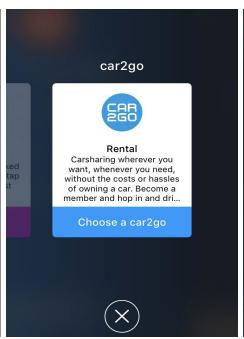


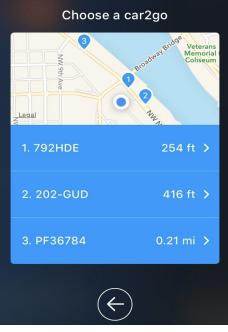
Linked or Integrated Mobile Apps

- Portland TriMet Tickets app integrated with other modes
 - RideTap software development kit links a trip planning app to the TriMet Tickets app and to the booking and payment apps for Lyft ride-sourcing, car2go and Zipcar car sharing, and BIKETOWN bike sharing









Linked or Integrated Mobile Apps & Common or Linked Payment Accounts

- Chicago integration of Divvy bike share with Ventra App
 - Integration will improve ability to locate Divvy bike share stations, view bike and dock availability, and seamlessly pay for Divvy bike rentals though the appusing Ventra transit value
- □ CTA pilot with I-Go: hybrid smart card (two chips and two antennae) for transit payment and car share access
 - RFID sticker affixed to Chicago Card (predecessor to Ventra) to communicate with the car-share readers



Common or Linked Payment Accountswith Fare Integration

- Verkehrsverbund Rhein-Ruhr (VRR) mobility pass pilot in Dusseldorf, Germany
 - For monthly flat rate, receive card that includes a monthly pass for local transit, 90 minutes of Car2Go usage, and 4 hours daily usage with nextbike
 - Users can purchase additional credit as needed



Multi-Modal Incentives

- LA Metro ExpressLanes Transit Rewards Program
 - Earn \$5 toll credit on the Metro ExpressLanes corridors by taking 16 one-way trips during peak periods
 - Link TAP smart card with FasTrak at special website
 - Metro ExpressLanes Rewards credits are non-transferable and expire after 90 days
 - Enroll by including TAP smart card number on account application
 - The toll credits must be used on Metro ExpressLanes and are not valid on other toll roads
- Partnerships between transit agencies and ride-hailingcompanies to provide discount on first/last-mile trips



Other Strategies

Regular Fare Increases to Improve Predictability

■ Fares often do not keep pace with increases in costs

Strengths

- Link fare increases to cost increases (e.g., CPI) and improve predictability of fare increases
- Regular fare increases enable agencies to increase fares in smaller increments

Challenge

- With fare increases in small increments (\$0.05-\$0.20), customers need to carry coins, increasing cost of fare collection and boarding times
- □ Fares not rounded to nearest \$0.25 can result in overpayment to avoid carrying coins and requires issuing a change card



Workshop #1: Peer Fare Policies: Performance Metrics, Fare Products, Pricing, Fare Integration

Part II: Paratransit

Workshop #1 Agenda

Part II: Paratransit

- Peer ADA paratransit performance indicators
- Peer ADA fares
- Peer fare and cost management strategies



Paratransit Peers

- □ Paratransit performance metrics and fares were reviewed for 11 peer transit agencies
 - Albuquerque
 - Colorado Springs
 - Des Moines
 - ☐ Fort Worth
 - Kansas City
 - ☐ Little Rock
 - Madison County (IL)
 - Nashville
 - Omaha
 - □ Tulsa
 - Wichita
 - Additional peers added as applicable



- The following tables compare fare-related performance metrics for ADA paratransit services operated by EMBARK and its peers
 - Cost per Boarding
 - □ Farebox Recovery Ratio
 - Subsidy per Boarding
 - Average Fare per Boarding
- Performance metrics are followed by information about peer paratransit fares and strategies for maximizing fares and managing costs



City	Mode / Delivery	Cost per Boarding	Farebox Recovery	Subsidy per Boarding	Average Fare per Boarding
Oklahoma City	DR / DO DT / PT	\$51.81	7.5%	\$47.91	\$3.90
Albuquerque	DR / DO	\$33.26	4.0%	\$31.93	\$1.33
Colorado Springs	DR / PT DT / PT	\$28.44	8.5%	\$26.03	\$2.42
Des Moines	DR / DO DT / PT	\$25.66	51.7%	\$12.39	\$13.28
Fort Worth	DR / DO & PT	\$36.58	8.2%	\$33.57	\$3.01
Kansas City	DR / DO & PT DT / PT	\$31.01	6.7%	\$28.93	\$2.09
Little Rock	DR / DO	\$24.99	10.7%	\$22.32	\$2.67



Mode: DR: Demand Response DT: Demand Response-Taxi Delivery: DO: Directly Operated PT: Purchased Transportation

City	DO / PT	Cost per Boarding	Farebox Recovery	Subsidy per Boarding	Average Fare per Boarding
Oklahoma City	DR / DO DT / PT	\$51.81	7.5%	\$47.91	\$3.90
Madison County	DR / PT	\$48.90	5.0%	\$46.48	\$2.42
Nashville	DR / DO DT / PT	\$48.70	7.9%	\$44.85	\$3.85
Omaha	DR / DO	\$25.23	9.7%	\$22.77	\$2.46
Tulsa	DR / PT	\$27.76	9.8%	\$25.03	\$2.73
Wichita	DR / DO & PT	\$15.04	20.1%	\$12.02	\$3.02

Mode: DR: Demand Response DT: Demand Response-Taxi Delivery: DO: Directly Operated PT: Purchased Transportation



- EMBARK Plus costs are higher than these peers, resulting in higher subsidies and a lower farebox recovery ratio
- □ Cost per Boarding (EMBARK: \$51.81)
 - Most expensive amongst peers; higher by \$3 to \$37/brdg
 - Peers range from \$15.04 to \$48.90
- □ Farebox Recovery Ratio (EMBARK: 7.5%)
 - ☐ Higher than 3 peers (Albuquerque, Kansas City, Madison Co.)
 - Peers range from 4.0% to 51.7%
- **□** Subsidy Per Boarding (EMBARK: \$56.48)
 - Highest among peers
 - Peers range from about \$12 to about \$46.50
- Avg Fare per Boarding (EMBARK: \$3.90; ADA fare \$3.50)
 - Above average compared to peers (peer avg fare per boarding \$3.57; peer average ADA fare \$3.05)



- ADA paratransit service is expensive to provide and transit agencies have taken steps to generate additional revenue, manage demand, and control costs
 - Revenue generation: higher fares for premium services, longer trips
 - Demand management: more effective eligibility processes, lower cost mobility options, fare structures that deter demand for longer trips
 - Cost management: reduce demand for longer trips, contract service delivery, supplemental taxi service, lower cost/more secure fare collection options
- The following slides discuss each of these strategies



- The following tables compare fares for ADA paratransit services operated by EMBARK and its peers
- ☐ Federal regulations limit ADA paratransit fares to 2x the fixed route bus cash fare within the required service area (¾ mile on either side of each fixed route)
- All 11 of EMBARK's peers offer ADA complementary paratransit services and comply with fare, service area, and service hour requirements
- Some peers also offer demand response services to meet other needs - and which may provide lower cost opportunities to serve ADA riders. These services are also included in the fare tables



City	Type of Service	Pickup	Service Area	Local Adult Fare	Paratransit Fare	Paratransit Fare Multiple
Oklahoma City	Standard	Door-to-Door	Zone 1 (ADA Mandated)	\$1.75	\$3.50	2.0
	Standard	Door-to-Door	Zone 2		\$7.00	4.0
Albuquerque	Standard	Door-to-Door & Curb-to-Curb	ADA Mandated	\$1.00	\$2.00	2.0
Colorado Springs	Standard	Door-to-Door & Curb-to-Curb	ADA Mandated	\$1.75	\$3.50	2.0
	Taxi Service	Door-to-Door & Curb-to-Curb	≤7 miles within ADA Mandated		\$3.50	2.0



City	Type of Service	Pickup	Service Area	Local Adult Fare	Paratransit Fare	Paratransit Fare Multiple
Oklahoma City	Standard	Door-to-Door	Zone 1 (ADA Mandated)	\$1.75	\$3.50	2.0
	Standard	Door-to-Door	Zone 2		\$7.00	4.0
Des Moines	Standard	Door-to-Door	ADA Mandated	\$1.75	\$3.50	2.0
	Standard	Curb-to-Curb	ADA Mandated + 3/4 mile		\$8.00	4.6
	Standard	Curb-to-Curb	ADA Mandated + 1 1/2 mile		\$10.00	5.7
	Standard	Curb-to-Curb	ADA Mandated + >1 1/2 mile		\$12.00	6.9
o u r	On-call Service	Door-to-Door	City of origin		\$3.50 (adult) \$0.75 (S/D/M)	2.0

City	Type of Service	Pickup	Service Area	Local Adult Fare	Paratransit Fare	Paratransit Fare Multiple
Oklahoma City	Standard	Door-to-Door	Zone 1 (ADA Mandated)	\$1.75	\$3.50	2.0
	Standard	Door-to-Door	Zone 2		\$7.00	4.0
Fort Worth	Standard	Door-to-Door	City Limits	\$1.75	\$3.25	1.9
Kansas City	Standard	Door-to-Door & Curb-to-Curb	ADA Mandated	\$1.50	\$3.00	2.0
o u r	Non-ADA (S/D) Demand Response	Door-to-Door & Curb-to-Curb	Kansas City (city limits)		0-3 miles: \$3 3-6 mi: \$5 6-9 mi: \$7 9-12 mi: \$9 12-15 mi: \$11 15+ mi: \$11 + \$2/mile	0-3 miles: 2.0 3-6 mi: 3.3 6-9 mi: 4.7 9-12 mi: 6.0 12-15 mi: 7.3 15+ mi: 7.3 + \$2/mile

TECHNOLOGIES

City	Type of Service	Pickup	Service Area	Local Adult Fare	Paratransit Fare	Paratransit Fare Multiple
Oklahoma City	Standard	Door-to-Door	Zone 1 (ADA Mandated)	\$1.75	\$3.50	2.0
	Standard	Door-to-Door	Zone 2		\$7.00	4.0
Little Rock	Standard	Door-to-Door	ADA Mandated	\$1.35	\$2.70	2.0
Madison County	Standard	Door-to-Door	ADA Mandated	\$1.50	Single service zones: \$3 Multiple zones: \$4 St. Clair County: \$6 St. Louis: \$6 Out of District Surcharge: \$5	2.0 2.7 4.0 4.0
f o u r	Non-ADA Mandated and 65+	Door-to-Door	Regional		Single service zones: \$6 Multiple zones: \$8 St. Clair County: \$10 St. Louis: \$10 Out of District Surcharge: \$5	4.0 5.3 6.7 6.7

City	Type of Service	Pickup	Service Area	Local Adult Fare	Paratransit Fare	Paratransit Fare Multiple
Oklahoma City	Standard	Door-to-Door	Zone 1 (ADA Mandated)	\$1.75	\$3.50	2.0
	Standard	Door-to-Door	Zone 2		\$7.00	4.0
Nashville	Standard	Door-to-Door	ADA Mandated	\$1.70	\$3.40	2.0
Omaha	Standard	Curb-to-Curb	ADA Mandated	\$1.25	\$2.50	2.0
Tulsa	Standard	Door-to-Door	ADA Mandated	\$1.75	\$3.50	2.0
	Short Ride (6 miles or less)	Door-to-Door	ADA Mandated		\$3.00	1.7
Wichita	Standard	Depends on pick-up location	City Limits	\$1.75	\$3.50	2.0

TECHNOLOGIES

- Like EMBARK Plus, Kansas City, Madison County, and Tulsa offer premium paratransit services that exceed ADA requirements and for which they may charge higher fares.
- □ FTA Circular 4710.1 identifies the following as examples of premium services for which higher fares may be charged:
 - Same-day trips
 - ☐ "Will-call" trips
 - ☐ Trips before/after established service hours
 - ☐ Trips beyond the defined service area
- Over time, ADA regulations have been tightened in response to some agency tactics (e.g., no longer able to charge higher fares for door-to-door service)



- Des Moines and Madison County assess higher fares on ADA paratransit services outside the mandated service area
- EMBARK Plus fare multiples are low compared to Des Moines' Plus Bus

Des Moines Plus Bus	Fare	FR Fare Multiple	ADA Fare Multiple
Fixed Route Fare	\$1.75	N/A	N/A
ADA Service Area	\$3.50	2.0	N/A
ADA + ¾ mile	\$8.00	4.6	2.3
ADA + 1½ miles	\$10.00	5.7	2.9
ADA + >1½ miles	\$12.00	6.9	3.4

EMBARK Plus	Fare	FR Fare Multiple	ADA Fare Multiple
Fixed Route Fare	\$1.75	N/A	N/A
Zone 1	\$3.50	2.0	N/A
Zone 2	\$7.00	4.0	2.0



■ Madison's County's fares are based on service zones, with higher fares for trips that begin/end outside the ADA service area

One Way Fares	ADA-Eligible*	Non-ADA Eligible**
Single service zones:	\$3.00	\$6.00
Multiple zones:	\$4.00	\$8.00
St. Clair County:	\$6.00	\$10.00
St. Louis:	\$6.00	\$10.00
Out of District Surcharge:	\$5.00	\$5.00

*ADA Eligible Trip:

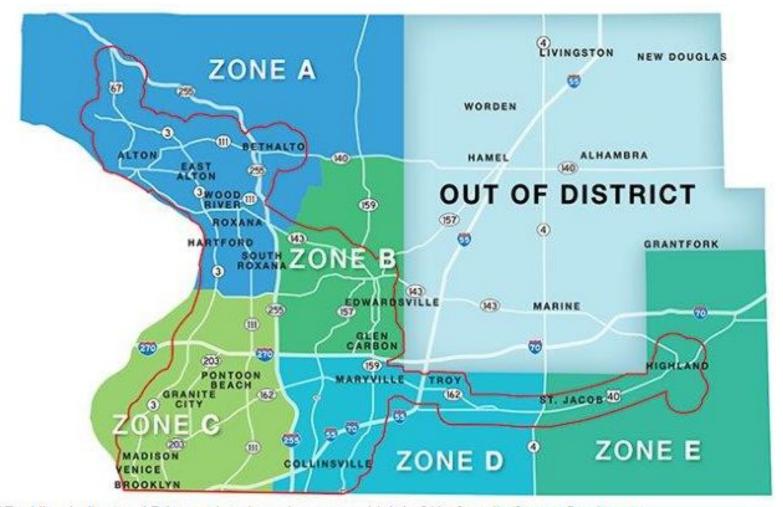
 A trip for an ADA Eligible individual that begins and ends within ¾ mile of a fixed route, on the days and hours that the fixed route operates.

**Non-ADA Eligible Trip:

- A trip made by a passenger who is qualified for service based only on age (65 years or older).
- A trip made by an ADA Eligible passenger that does not begin and end within ¾ mile of a fixed route, on the days and hours that the fixed route operates.



Madison County's service zones:





TECHNOLOGIES

^{*}Red line indicates ADA mandated service area, which is 3/4 of a mile from a fixed route.

- ☐ Riverside Transit Agency (Riverside, CA) offers three types of demand response services and distance-based fares:
 - ADA Priority Dial-a-Ride Service: ADA-compliant service throughout the RTA service area, with priority to ADA-certified riders
 - Senior/Disabled Dial-a-Ride Service: ADA-compliant service within a single city (zone), for seniors and persons with disabilities; requires proof of eligibility, but no application/certification
 - □ Dial-a-Ride Plus Lifeline Service: lifeline services (e.g., dialysis, doctor appointments, grocery stores, meal services) for seniors/persons with disabilities needing specialized transportation in an area 2¾ miles from fixed route services
 - Fares: Service area is divided into 6 zones. Minimum fare is \$3.00 per boarding; maximum fare is \$9.00 per one-way trip, based on the number of zones traveled. Transfer may be required, depending on origin/destination



- Peers also charge more for premium services such as same day reservations and phone ahead services
 - □ Tulsa's fees for premium services include \$7 for "Will Call" (same day service, regardless of trip length) and \$1 for "Phone Ahead" (notification that the ride is arriving)



ADA Paratransit Fares: Summary

- Mandated ADA services only: Albuquerque, Colorado Springs, Fort Worth, Kansas City, Little Rock, Nashville, Omaha, Wichita
- Differentiated fares for premium services
 - □ Trips beyond the defined service area: Oklahoma City, Des Moines, Madison County
 - Same day reservations: Tulsa
 - Call ahead service: Tulsa
- Distance-based fares
 - Zoned ADA service area: Riverside
 - Short Ride: Tulsa



- Demand management strategies reduce costs by reducing demand, such as lower cost mobility options, fare structures that deter demand for longer trips, and more effective eligibility processes
- Kansas City and Des Moines offer non-ADA mobility options that may also be attractive to ADA-eligible riders
 - Kansas City's non-ADA Service is available to persons with disabilities (age 16-65) and low income seniors, for all trip types from 6 AM to midnight, 7 days a week. Fares are distance-based:

Des Moines Paratransit is a free service for low income disabled riders age 18+ who are unable to use the bus for medical appointments, grocery trips, and a monthly miscellaneous trip. Funded by social service agencies (e.g., Polk County Adult Services)



- In Orange County, CA, OCTA has implemented mobility programs that serve specific populations, but also provide lower cost alternatives for ADA-eligible riders who are able to use them, reducing the demand for ADA paratransit trips
- The Senior Mobility Program is designed to fill the gap between local fixed route buses and ADA paratransit by providing local transportation services to senior in participating cities. In exchange, participating cities are eligible to receive funds and vehicles from OCTA to help design and operate the program



- □ Free or reduced fixed route fares are another strategy for managing demand for ADA paratransit services
- □ Fixed route services can be more attractive for riders than ADA paratransit services, which require reservations, and have higher fares and less flexible schedules
- □ For ADA riders who are able to use fixed route services for some of their trips, free or reduced fixed route fares provide an extra incentive to induce the switch to those services from ADA paratransit
 - Madison County offers free fares on fixed route buses, which are lift-equipped and wheelchair accessible. Seniors and persons with disabilities are eligible for a Free Ride ID under the State of Illinois' Benefits Access Program
 - Other agencies charge reduced fixed route fares for ADA-eligible riders and their PCAs (e.g., OCTA charges \$0.25).



- Other demand management programs include making and enforcing conditional eligibility assessments
 - ☐ Conditional eligibility may reduce trip eligibility, but require resources to conduct path of travel analyses and travel training
 - ☐ Free/reduced fixed route fares may incentivize riders to undergo travel training and then opt to use fixed route service



- Cost management strategies include contracting for service delivery, use of supplemental taxi service, and lower cost/more secure fare payment options
- □ Among EMBARK's 11 peers, 5 contract some or all of their ADA services:
 - 6 operate ADA paratransit services directly
 - 3 operate some services directly and contract for some
 - 2 contract their ADA paratransit services
- Five peers also contract demand response taxi services



Peer service delivery choices:

	Demand Response	Taxi
Oklahoma City	DO	PT
Albuquerque	DO	
Colorado Springs	PT	PT
Des Moines	DO	PT
Fort Worth	DO, PT	
Kansas City	DO, PT	PT
Little Rock	DO	
Madison Co	DO	PT
Nashville	DO	PT
Omaha	DO	
Tulsa	PT	
Wichita	DO, PT	



- Contracted demand response taxi services are often used to supplement ADA paratransit capacity during peak periods or on weekends while providing lower cost mobility options.
- ☐ Five of EMBARK's peers use demand response taxi services to augment standard ADA van services: Colorado Springs, Des Moines, Kansas City, Madison County, and Nashville
- OCTA's Same-Day Taxi Program is not an ADA service but is available to ADA riders, thereby providing a cost-effective way to relieve demand for the standard van ADA paratransit program. It is also attractive to customers because for short trips it is not necessary to reserve a second trip (as it would be with ADA paratransit



- □ Fare payment options that minimize on-board transactions are desirable in the ADA paratransit environment
- Advantages of electronic prepaid fare collection include facilitating payment by individuals or organizations, improved data and boarding speeds, increased float on prepaid fares, and reduced fraud/abuse
- In Colorado Springs, ADA paratransit fares can be paid by establishing a prepaid electronic account. Prepaid electronic accounts can be set up in three ways:
 - Online using a credit card at https://secure.coloradosprings.gov/adamobility-tickets
 - With the Metro Mobility Customer Advocate at 392-2396, Option 3, using cash, check, or money order
 - With your Metro Mobility driver, using cash, check or money order



Workshop #2: Fare programs: Student, College, Low Income, and Employer Programs

Workshop #2 Agenda

- □ Pass Program Structures
- Program Costs
- □ K-12 Student Programs
- College Programs
- Low Income Program
- Employer Programs



Pass Program Structures

Pricing

- ☐ Insurance pay for everyone, pre bill (typically) or post bill
- Per boarding pay for what you use, post bill
- Commuter check provide set amount of value, pre bill
- Capping pay for what you use but not exceed amount for contract or per person, post bill

Payment

- Individual
- Indirect: employer benefit, school dues, etc.
- Partnership: school district, government agency



Program Costs

- Lost fare revenue from subsidizing or offering free fares
- Additional operational costs to accommodate additional ridership during peak service
- Increase in demand for additional service if location not well served by transit
- Program administration and fare media/identification cards



- EMBARK and its peers offer discounted passes for K-12 students
- Common program goals
 - Improve participation in after-school activities and jobs
 - Reduce financial burden on families to provide transit pass for each member of household
 - Improve social equity
 - Improve school attendance and graduation rates
 - Improve academic performance
 - Reduce emissions and traffic congestion
- four
 onines
- Educate students about climate change

- EMBARK currently offers two student Haul Pass programs
 - \$10 30-day pass for current students
 - □ Pilot: Free program for junior & senior high school students
- Peers have taken similar approaches to student programs
- Many peers offer discounted student passes to schools through bulk sales programs that schools distribute to students at cost or for free



- □ TriMet's Portland Public Schools Transit Pass Program
 - Instead of yellow bus service, PPS high schoolers able to ride TriMet for free throughout the school year by showing student ID
 - PPS, City of Portland and TriMet each subsidize 1/3 of the cost
- ☐ SFMTA's Free Muni for Youth Program in San Francisco
 - □ Free access to Muni services for registered low and moderate income San Francisco youth ages 5 to 18 when using a Clipper card
 - No dedicated funding source



Recommendation:

- Define eligibility parameters and determine whether to continue and expand pilot Haul Pass to include additional school districts and grades
- Determine whether restrictions should be implemented (e.g., time of day, day of week, or route)
- Identify funding source and develop partnerships with schools, funding agencies, city, and other stakeholders to fund long-term
- Establish performance measures and use benchmarking to define program success



College Programs

- College pass models
 - Discounted monthly or semester pass sold by transit agency directly to students
 - Discounted monthly or semester passes administered by university to determine eligibility
 - Pricing based on headcount (insurance model)
 - Pricing based on per ride
- ☐ Fees often paid through student activity fees, dedicated student transit fees, or transportation department budget
- As programs have evolved, many peers administered as part of employer program sometimes with differentiated lower pricing than for employers



Two types of programs:

- Low income bulk ticket sales programs
 - Meet <u>immediate</u> needs for individuals who struggle to afford the price of a fare
 - Enable organizations to purchase transit fare media in bulk at a discount
 - Costs shared by transit agency, purchasing organizations, and possibly recipients
- Non-bulk sale low income fare programs
 - Meet <u>on-going</u> needs of low income riders
 - Often rely on outside organizations that assess income eligibility



- Discounted passes
 - □ 25-80% discount
 - Dallas, Des Moines, Los Angeles, Madison, Salt Lake
 City, San Francisco, Santa Clara
- Discounted single fares & passes
 - 40-70% discount
 - Seattle, Tucson, Minneapolis/St. Paul
- Targeted free fares
 - Chicago, San Francisco, Santa Clara



- Measures used to determine eligibility:
 - ☐ Federal Poverty Level (FPL) most common
 - □ 125-230% of FPL
 - □ Area Median Income (AMI)
 - □ 50-100% of AMI
 - Lower Living Standard Income Level (LLSIL)
 - □ 100% of LLSIL



Seattle ORCA LIFT

- Description: discounted fares and monthly passes paid using stored value on smart card
- **□ Fare Discount:** 33%-50%
- Program size: between March 2015 and August 2016 35,000 registered; estimated 45-100,000 at completion
- **Source of program funding:** participating operators cover fare revenue loss & administrative costs from operating budget
- ☐ Eligibility: at/below 200% Federal Poverty Level
- Means Testing: community partners
- Lessons learned:
 - Leverage community partners to reach low income populations and manage program costs
 - ☐ Implement on regular Adult smart card to enforce fares electronically and minimize stigma of being low income
 - ☐ Low income program can mitigate impact of fare increases



Tucson Economy Fares

- Description: extends senior/disabled discounted fares and monthly passes to low income youth and adults with photo smart card/ID; stored value not required for fare payment
- ☐ Fare Discount: 67%
- □ Program size: 16,000 registered; ~50% of riders pay Economy Fare
- Source of program funding: City's General Fund
- Eligibility: Lower Living Standard Income Level
- Means Testing: SunTran
- Lessons learned: in order to minimize operational impacts, implement on smart card



Salt Lake City Horizon Pass

- Description: riders who receive welfare benefits from the state may use funds in their EBT accounts to purchase monthly passes
- ☐ Fare Discount: 25%
- □ Program size: N/A
- **Source of program funding:** riders' EBT benefits
- Eligibility: welfare recipient with funds on EBT card
- Means Testing: retail location
- Lessons learned:
 - Enabling direct use of welfare benefits has eliminated need for means testing
 - Program only offers discounted monthly passes and does not address needs of less frequent riders
 - Using funds in EBT account requires use of money that could have been used to meet other needs
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Santa Clara County UPLIFT

- Description: free quarterly transit passes to case-managed, homeless individuals and those in danger of becoming homeless; stickers valid for three months are affixed to County-issued photo identification cards
- ☐ Fare Discount: 100%
- Program size: 9,600 quarterly passes per year
- **Source of program funding:** City of San Jose & County of Santa Clara offset 6.5% of face value of passes, remainder from VTA's operating budget
- □ **Eligibility:** individuals receiving case management services
- Means Testing: County Social Services
- Lessons learned: leveraging an existing service network and eligibility management system that is coordinated by the County minimizes VTA's costs and provides a means for clearly defining and bounding the target population

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San Francisco Free Muni

- **Description:** free Muni for low income and moderate income youth and seniors & persons with disabilities with use of smart card
- ☐ Fare Discount: 100%
- **Program size:**
 - 32,000 participants in initial Free Muni for Youth pilot
 - In month prior to launch of Free Muni for Seniors & Persons with Disabilities, 38,000 participants
- **Source of program funding:** funds from MPO and Google, remainder absorbed as lost fare revenue
- Eligibility: 100% Area Median Income
- **Means Testing:** self-certified application sent to SFMTA
- **Lessons learned:** absence of income verification has led to fraud, fare inspectors have confiscated passes being used by adults



Employer Programs (for employees who park downtown and use streetcar)

- Seattle
- Denver
- Albuquerque
- ☐ Fort Worth
- Kansas City

- Central Arkansas
- Omaha
- Tulsa
- Phoenix
- Northern California



- Employer programs can be managed in a variety of ways
- Prices can be split between a combination of: transit agency, employers, employees
- Some agencies require annual contracts, some allow revolving contracts, and others don't require a contract
- Different tax benefits are associated with different program structures
 - Employers claiming fare subsidies as a tax credit
 - Employees using pre-tax dollars to pay for transit fare
- ☐ All-in versus opt-in
- Varying pricing strategies
 - Same rate for all businesses
 - Varying rate based on business location and/or size and/or transit service levels
 - Dynamic pricing based on employees' pass usage



King County Metro <u>Business Passport</u> & Business Choice [Seattle]

- □ All-in annual pass
- Access to Puget Sound area transit agencies accepting ORCA
- Minimum: 20 employees (5 employees for locations in downtown Seattle and Bellevue)
- Annual contract, prepaid
- Online account management
- Employer subsidizes 50%-100% of cost of each pass
- □ Annual bulk pricing based on company location (zone) and fare levels on services serving the zone
- Pricing adjusted twice a year to account for usage updates by zone and fare changes
- f o u r o o o n i n e s

Custom Passport: contract terms and price negotiated with 500+ employee firms

King County Metro Business Passport & Business Choice [Seattle]

- Annual pass / opt-in
- Agreement, but no contract
- No minimum
- Online account management
- 0% discount on sales
- No employer subsidy requirements



RTD's EcoPass & FlexPass [Denver]

- Overview
 - EcoPass & FlexPass provide access to all services and all four service zones
 - Prices adjusted consistent with general fare increases
 - 900 businesses currently participating in the program
 - EcoPass & FlexPass program migrated to RTD's smart card media to improve the availability of EcoPass ridership data needed to assess EcoPass usage and make decisions about how to price the program



RTD's <u>EcoPass</u> & FlexPass [Denver]

- EcoPass
 - Annual pass unlimited bus, rail, and airport services
 - All-in program; contract required
 - No minimum participation
 - □ 76%-97% discount from ValuPass (varies by location, employer size)
- Employee Benefits
 - Allows use of pre-tax dollars
 - Automatic enrollment in Guaranteed Ride Home
- Employer Benefits
 - Tax deductible
 - Reduces payroll taxes via a pre-tax benefit
 - ☐ Can distribute all costs to employer or employee, or share cost between the two



RTD's EcoPass & <u>FlexPass</u> [Denver]

- FlexPass
 - Annual pass
 - Opt-in program; employer signs revolving contract
 - RTD works with employer to select and price plan
 - ☐ Flexible customize service level, vary passes from month-to-month, enter or leave program at any time
- FlexPass available discounts for monthly pass price:
 - Matching: 10%
 - □ Pre-tax discount: 5%
 - ☐ Quantity (200+ passes/month): 5%



ABQ RIDE's Smart Business Partnership [Albuquerque]

- Promotes use of alternative transportation to improve air quality and decrease traffic congestion
- **■** Employer Benefits
 - Public recognition of support in community
 - Environmental PR
 - □ Free to participate
- Employee Benefits
 - Discounted bus passes
 - Reduced stress
 - Reduced risk of automobile accidents
 - ☐ Help conserve environment
- Led by marketing department



The T's EasyRide Commuter Program [Fort Worth]

- Overview
 - No minimum number of participating employees even though contract says there is
 - ☐ 25% discount on passes
 - Separate website with discounted passes that employees need company code to access
 - Employers or employees can pay for passes
- Employer Benefits
 - Federal tax deduction for transit expenses
- Employee Benefits
 - Receive pre-tax transit spending account
 - Company pays part or all of the cost of a pass



Ride KC's Transit Riders Incentive Plan (TRIP) [Kansas City]

- Overview
 - Employers pay at least \$4 toward 31-Day Pass and KCATA matches \$4 for at least \$8 employee discount
- Employer Benefits
 - Save up to \$100 per employee per year in payroll taxes
- Employee Benefits
 - Discounted 31-day pass price
 - □ Pass payment through payroll reduction means amount is exempt from payroll taxes (max \$230 per month)
- ☐ Includes Guaranteed Ride Home program
 - Provision for daytime emergencies



Ride KC & Johnson County's Passport

[Kansas City & Johnson County]

- Overview
 - □ 31-day pass for Johnson County Suburban Express and RideKC local buses
 - ☐ Save 28% off Johnson County Suburban Express fare
 - Only available for purchase by businesses
 - Minimum purchase of five passes per month required
- Also eligible for Guaranteed Ride Home Program



Rock Region Metro's Corporate Pass Program [Little Rock]

- Overview
 - Employers sell 31-day passes on location for \$30 compared to normal \$36
 - METRO delivers and picks up passes monthly
 - Sold on consignment basis
 - Employer returns unsold passes and only pays for purchased ones
 - Requires one to two employee hours per month from org implementing program
- Employer Benefits
 - Possibility to for tax benefits if further subsidize cost
- Employee Benefits
 - □ At least \$6 discount per month
 - Easy pick-up of pass at workplace



Metro's Commuter Pass Program [Omaha]

- Overview
 - 30-day transit pass for express and local bus
 - Receive discounted rates when purchasing commuter passes for at least 10 employees
 - ☐ 3 discount levels according to number of participants

Discount Level	Participant Number	Discount Percentage	Price per Pass (\$55.00 Value) ¹	Bus Advertising Discount ²
А	150+	25%	\$41.25	25%
В	50-149	15%	\$46.75	15%
С	10-49	10%	\$49.50	10%



Metro's Commuter Pass Program [Omaha] (continued)

- Three pass payment options
 - 1. Organizer-paid
 - Partnering business or organization provides pass to interested participants for free
 - Purchasers fully tax deductible
 - 2. Employee pre-tax
 - → Employees use pre-tax income to purchase individual passes
 - Reduced taxable income and payroll taxes
 - 3. Cost-sharing
 - Split costs between provider and participant
 - Combines tax advantages of two above



Tulsa Transit's Employer Bonus Bucks [Tulsa]

- Overview
 - Employer pays half or all cost of monthly bus fares
 - Employer offers vouchers to employees
 - □ Participating employees send vouchers to Tulsa Transit with their share of the fare, if applicable
 - Monthly passes sent to employees
 - Invoice sent to employer for vouchers redeemed
- Optional partnership with WageWorks for small fee per employee to automate program administration and payment
- Employer Benefit
 - □ Tax deductible
- Employee Benefit
 - Reduced fare



Phoenix Valley Metro's Platinum Pass [Phoenix]

- Overview
 - □ 250 employers + 120,000 cardholders
 - Annual pass / opt-in
 - □ 3-year agreement, post-payment
- Employers billed per boarding by employee, by service type, at the cash fare rate, capped at the monthly pass price (32x cash fare)
- Minimum: 5 active cards each month



Metropolitan Transportation Commission's Clipper Direct
[San Francisco Bay Area]

- Clipper Direct makes it possible for employees to use pre-tax dollars and for employers to provide monthly transit benefits directly to a Clipper card
- Employees can use the funds to add any combination of monthly passes, tickets, and stored value to a Clipper card and for use on any of the increasing number of Bay Area transit agencies that accept Clipper



Workshop #3: Fare Collection Technology Alternatives, Trends, and Best Practices

Workshop #3 Agenda

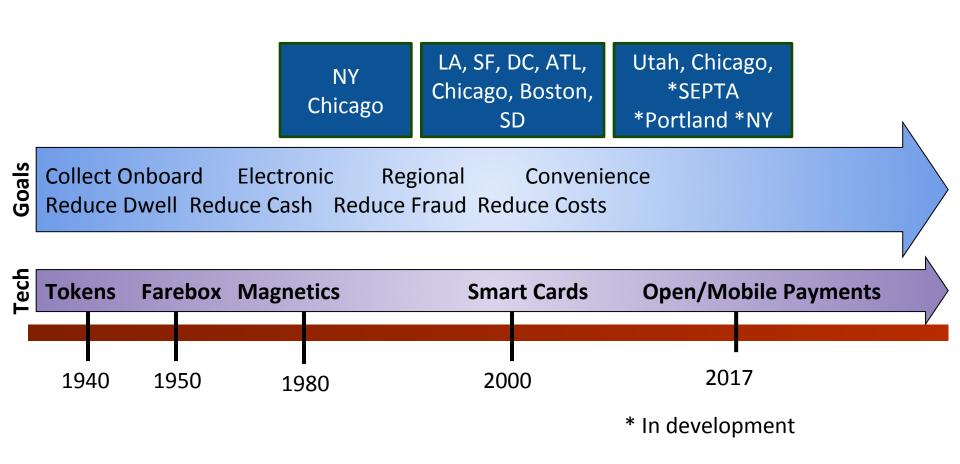
- Current EMBARK Fare Collection
- ☐ Fare Collection History
- Fare Collection Technology
- Fare Distribution
- Opportunities for Integration



Current EMBARK Fare Collection

Mode	Fare Payment Options	Fare Collection Equipment
Fixed Route BusParatransit	Single ride, value/change cardsFixed-route only: 1-day, 7-day, 30-day passes	 2006 GFI Odyssey fareboxes Stand alone credit card machine, online sales
· Ferry: Oklahoma River Cruises	· Single ride, daily maximum, charter	Cash or online credit card payments (Square)
· Spokies Bike Share	· 30-minutes, 2-day, monthly, and annual passes	B-Cycle kiosk with credit card, key fob reader on dock, or mobile app
 Downtown Parking Garages 	· Hourly, daily, monthly, event	· SKIDADA kiosks and gates
· Streetcar 2018	· TBD	Parkeon Strada ticket vending machines

Fare Collection History



Fare Collection Technology

Leverage technology to integrate different modes through a common payment system and enable seamless fare payment

	Mag Stripe	Visual	Bar Code	Contactless
Mag Stripe	✓	✓		
Thermal		~	V	
Mobile		~	V	v
Smart Card				~

- Identify opportunities to implement integrated fare policies, such as inter-modal passes that allow customers to park and ride transit, use ferries and bike share, etc.
- Maintain cash payment option and identify ways to enablecash customers to use the new fare payment system

Magnetic Stripe

- Currently installed on buses
- Compatibility with Streetcars is problematic
 - Readers at all doors
 - Inspectors?
- TRIM units are expensive to maintain
- No compatibility with bike share or parking



Thermal Printers

- Currently planned for Streetcar
- Can be Visual or Bar Code
- With Visual, no way to Validate or Initialize
- Compatibility with buses varies
 - Visual inspection at no additional cost
 - Bar codes requires readers and comms
- No compatibility with bike share or parking



Mobile Ticketing

- Ability to use app on smartphone or tablet to pay for transit
- Activate ticket on smartphone or tablet and show to bus operator when boarding
- Eliminates need to carry cash or pre-purchase a pass
- Requires riders to load stored value to mobile ticketing account with credit or debit card
- Development option to integrate fare payment and trip planning

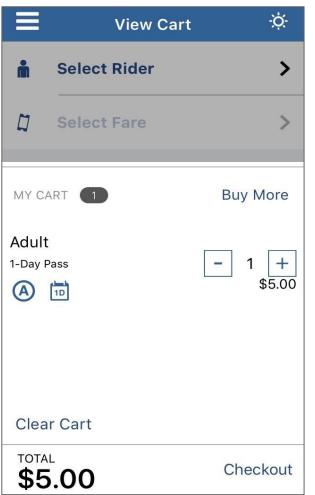


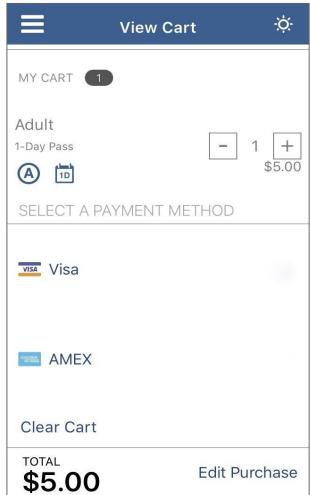
Mobile Ticketing

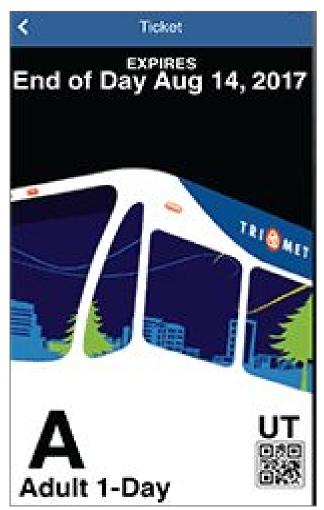
- Many implementations across the US
- ☐ Financial models vary, including no upfront cost options
- Visual
 - Inexpensive, quick to implement
 - □ Data better than thermal but not as good as electronic
- Bar Code
 - Requires equipment on all modes
 - Very good data
- □ NFC
 - Cutting edge, but moving fast
 - Cheaper than smart card or bar code
 - Very good data
 - Can follow visual
 - Good retail/low income options are available



Mobile Ticketing







Source: TriMet.org



Emerging Mobile Technologies

- Near Field Communications (NFC)
 - ☐ Technology behind Smart Cards and open payments (Apple Pay, Google Wallet)
 - Mobile device can be the hub and the communications
 - NFC passive beacon on vehicle can log boardings and be very inexpensive
 - Not yet fully implemented on phones
- Bluetooth Low Energy (BLE)
 - Similar to NFC beacon but doesn't require handset maker's cooperation
- Either one can be laid on top of visual



Other Mobile Considerations

- ☐ Title VI
- Prepaid cell phones & prepaid debit cards
 - Reno Mobile: 2/3 prepaid cells, 56% debit cards, 31% prepaid debit, 13% credit cards
- Data
 - Worst Keypad on farebox
 - Middle Phone initialization
 - Best Electronic Validation
 - Scanners are expensive and require comms
 - Beacons are cheap, no comms required
 - Delivery models vary



Trip Planners

- Purpose Built Trip Planner
 - Example: Cap Metro, Austin
 - Pros: One stop shop
 - Cons: Expensive, no choice, lower quality
- Deep Links
 - Examples: OCTA, SFMTA, NICE
 - Pros: Least Expensive, expected experience, OSes are improving linking
 - Cons: Download two or more apps
- No Links
 - Most common, Ex: DART, TriMet



Smart Cards in Transit

- Reuseable card that stores passes and stored value for use on transit
- ☐ Similar card already used by monthly parking garage users in COTPA garages



- Instead of dipping/swiping bus pass, tap card on a card reader
- Requires rider to pre-purchase passes or load stored value off-board the bus online, at a customer service center, or at a retail outlet

Source: Clippercard.com

Smart Cards in Transit

- ☐ First Generation Smart Card Systems: Card-Based, based on proprietary formats and protocols; Single System Integrator Very Expensive, plans are under way to retire most systems
- Next Generation Systems, Account-Based, Open Architecture, enhanced interoperability, much less expensive. Small and midsize systems are implementing them
- Still much more expensive and complex than mobile ticketing



Fare Collection Technology Options

What key things do you want to do (data, intermodal, and etc.)? How do you options rank against those goals?

Fare System		entation exity/Cost	Operational Cost	Enforce	ment	Intermodal	Data
Mag Stripe	Bus	sc		Bus	SC		
Thermal - Visual							
Thermal - Bar Code	Bus	SC					
Mobile - Visual							
Mobile - Bar Code	Bus	SC					
Mobile - NFC							
Smart Card							



Fare Distribution

- Current Network:
 - Onboard bus single ride, change card, and 1-day and7-day rolling passes
 - Retail Downtown Transit Center, Buy for Less, and Homeland: 1-day, 7-day, 30-day rolling passes and \$21 stored value cards
- How does technology play into retail network?
- How handle cash customers to load value? How handle customers with prepaid debit cards?
- Should the fare collection vendor develop retail network?
 - ☐ If no physical media, just need way to accept cash system, like PayNearMe or other competitors
 - ☐ If physical media, want more control over contract

PayNearMe

- Business Model
 - Electronic cash payment system that enables agencies to accept cash payments remotely
 - Nationwide network of retail partners customers use store check-out lines to pay bills or load money into accounts, in this case to load money for fare payment
 - □ PayNearMe set % of transaction & splits with retailer
 - Cash-only network debit, credit, checks, money orders, and gift cards not accepted
 - Works well with smartphones and/or reloadable fare cards for transit agencies
 - ☐ Then enables transit agency to collect ridership data on anonymous accounts to learn about ridership trends and usage
 - Can enable fare capping policies as well



PayNearMe

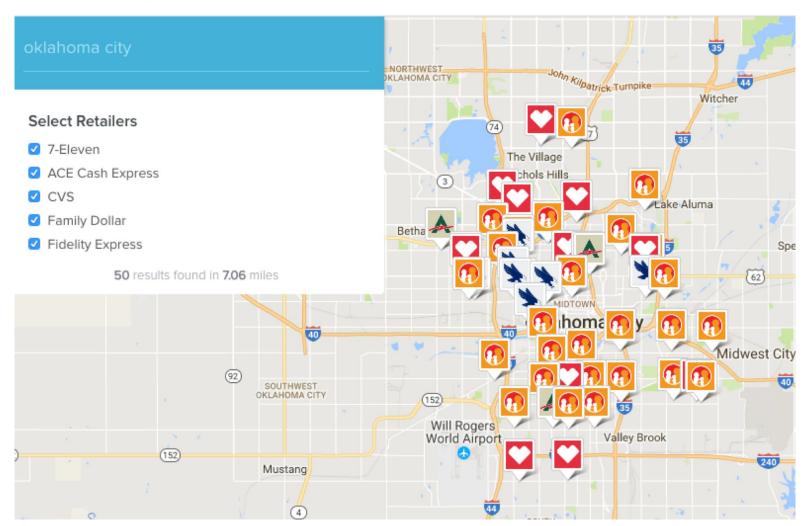
- How it Works
 - Customer selects "Pay with Cash" option on website
 - Customer enters at least last name and phone number or email address, though EMBARK could require additional information if desired
 - □ PayNearMe payment code sent via text or email, which they can also print
 - Customer hands the payment code and cash payment to the cashier at a participating retail store and receives a receipt
 - EMBARK is notified of transaction, and funds are transferred to EMBARK's account within 5 days



Depending on acceptable risk for agency, funds can be immediately available via transit account

PayNearMe

PayNearMe



Workshop #4: Streetcar Fare Enforcement and Fare Collection Alternatives

Workshop #4 Agenda

- ☐ Target Market
- □ Fare Collection Equipment Plans
- Intermodal Validation Challenges
- □ Fare Enforcement
- □ Fare Evasion
- Streetcar Fare Collection Option Evaluation



Target Market

- Existing Discovery Shuttle users
- Workers downtown
- Downtown residents
- Special events in downtown OKC
- Visitors from outside of OKC
- Others?



Fare Collection Equipment

- Parkeon Strada ticket vending machines at 22 stations
 - Coin, bill, and credit/debit card acceptance
 - Fare media issued: printed ticket, barcode, magnetic stripe???
 - Number of TVMs: 22
 - □ Fare enforcement validation: hand-held validators, visual inspection???



Intermodal Transfer Challenges

- Strong interest from public to integrate bus and streetcar and include streetcar in fixed route bus passes
- Interoperability challenges
 - Magnetic stripe tickets issued from Parkeon TVM unlikely to be read by GFI Odyssey fareboxes
 - Magnetic stripe tickets for GFI Odyssey fareboxes
- Optical barcode reader on bus may provide viable solution but additional infrastructure cost
- Other integrations necessary depending on policy decisions



Fare Enforcement

- POP Fare Enforcement requires on board inspections:
 - New or existing EMBARK employees
 - Private security
- Citations/Fines/Fares
 - Instant Fare collection
 - Citations/Fines might require legislation
- Handheld devices can be off the shelf
 - ☐ With printer and scanner, \$1500-\$2000 per device
 - □ App \$100,000+



Fare Evasion

Streetcar Fare Evasion Case Studies

- Toronto
 - 2.7% fare evasion rate
 - □ \$3.25 streetcar fare
- Atlanta
 - □ 47% fare evasion rate
 - \$1.00 streetcar fare
- San Francisco
 - □ 7.9% fare evasion rate (includes all Muni services)
 - □ \$2.50 streetcar fare



NOTE: all PoP-enforced

Streetcar Fare Collection Options

	Free Fare	Enforced POP	Unenforced POP
Intermodal Transfers			
Fare Collection Equipment			
Fare Enforcement Costs			
Fare Revenue			
Fare Evasion			
Simplicity, Ease of Understanding			
Perception of Safety			
Others?			

