

Pass Program Study

Evaluating the Options

November 14, 2017



TECHNOLOGIES

Agenda

- Modeling Challenges
- Options B, C & E General Results
- Comparison of the Options by Component
- Discussion

Modeling Challenges

- When we dig into the data and wrestle with the assumptions – it raises questions and challenges our thinking in ways that have significant implications for the options and the modeling
- Significant questions that we are continuing to work through – inside our team and in conversations with RTD staff:
 - The projected ridership & revenue in the 2019 baseline model
 - The gap between current pricing and the actual value of the trips made and the implications of right pricing on organizations decision to continue to participate in the program
 - SLA boundaries that haven't been redefined for changes in service levels since 2013 when the W line opened
 - Underpricing of programs due to missing tap data due to riders not tapping prior to boarding rail
 - The feasibility and implications of changing the prices all at once

Option B, C & E General Results

- The options with the 2019 base fare will not reach the SBP revenue targets in the 2019 baseline as the discounts offered increase and/or ridership losses expected due to right pricing of the programs that are currently underpriced
- Ridership generated by discounts offered do not offset the revenue losses resulting from offering a discount
- Cross subsidization that is occurring within programs is creating unfairness as not everyone is paying their fair share
- Right pricing fares and reducing discounts does pose a risk to ridership and revenue as riders and programs that experience an increase may choose to leave

Option B

General public

- 10% load bonus: converted to stored value discount & discount on day pass
- 3-hour pass on MyRide and mobile ticketing
- Day pass priced at 2x the fare
- 50% discount for low income at 138% FPL, senior/disabled & youth

Pass programs

- Business - stored value
- College - no program
- Neighborhood - no program
- Youth - no pass program

Option B

Components	Pros	Cons	Ridership	Revenue
General Public				
Adult	Greater discount on Regional & Airport fares paid electronically	No monthly or annual passes available, minimizing convenience for frequent riders	TBD	TBD
S/D/M				
Youth				
Low Income	Increased affordability of fares for registered low income riders	Revenue loss from 50% discount not offset by increase in ridership	↑	↓
Colleges	Cost savings from no longer needing to administer the program	Significant losses in ridership and revenue expected as students forgo trips	↓	↓
Neighborhoods	Cost savings from no longer needing to administer the program	Losses in ridership and revenue expected	↓	↓
Businesses	Pay only for what is used	Losses in ridership and revenue expected	↓	↓

Option C

General public

- Stored value discount: \$0.25 full fare; \$0.15 discount fare
- 2-hour pass
- Day pass priced at 2x the fare
- Monthly pass priced at 32x the fare and 38x the fare
- 50% discount for low income at 138% FPL, senior/disabled & youth

Pass programs - stored value discount

- Business - utilization pricing by institution (no SLAs)
- College - utilization pricing by institution
- Neighborhood - no program
- Youth - no pass program

Option C

Components	Pros	Cons	Ridership	Revenue
General Public				
Adult	Minimized revenue leakage by reducing fraud by limiting fares to 2-hour pass	Revenue loss from increasing discount of monthly pass by reducing the multiple from 38 to 32	TBD	TBD
S/D/M				
Youth				
Low Income	Increased ridership due to improved affordability of fares for registered low income riders	Revenue loss from 50% discount not offset by increase in ridership	↑	↓
Colleges	Maintain ridership & revenue from pass program		-	-
Neighborhoods	Cost savings from no longer needing to administer the program	Losses in ridership and revenue expected	↓	↓
Businesses	Pay only for what is used	Losses in ridership and revenue expected	↓	↓

Option E










General public

- Stored value discount: \$0.25 full fare; \$0.15 discount fare
- 3-hour pass
- Day pass priced at 2x the fare
- Monthly pass priced at 38x the fare
- Annual pass priced at 11x the monthly pass; youth annual pass priced at 12x
- 50% discount for low income at 138% FPL and senior/disabled
- Youth 12 and under free
- 70% discount for youth day, monthly, and annual pass with 50% discount on 3-hour passes

Pass programs - 10%, 20% & 40% discount

- Business - utilization pricing by SLAs; + \$5 fee
- College - utilization pricing by institution
- Neighborhood - utilization pricing by neighborhood
- Youth - youth regional pass

Option E

Components	Pros	Cons	Ridership	Revenue
General Public				
Adult	No change from 2019 baseline		-	-
S/D/M				
Youth	Increased ridership	Revenue loss from discount		
Low Income	Increased ridership due to improved affordability of fares for registered riders	Revenue loss from 50% discount not offset by increase in ridership		
Colleges	Maintain ridership from pass program	Greater the discount, greater the revenue loss	-	- (10% discount)  (20% & 40% discount)
Neighborhoods	Neighborhoods/employers currently overpriced or right priced remain in the program	Neighborhoods/employers with high transit use experiencing cost increases drop out of the program		- (10% & 20% discount)  (40% discount)
Businesses	Employer SLAs minimize the cost increases for employers with high transit use	Greater the discount, greater the revenue loss and lower the ridership loss	 (10% & 20% discount) - (40% discount)	

Option Components

- Low Income Program
- Regional Youth Pass Program
- College Program
- Business Program
- Neighborhood Program

Discussion

- How do we repackage the options to make more successful?
- Can we eliminate anything now?

Low Income Program

High-Level Modeling Results:

- Increase in ridership amongst registered low income riders
- Revenue loss since increase in trips does not offset the 50% discount

Winners:

- Registered low income riders

Losers:

- Non-registered low income riders
- Non-low income riders

Challenges:

- How do you make it easy for participants to register and reload value to their card?
- How do you minimize impact on riders who do not qualify or low income riders who do not register?
- How do you offset the revenue loss by increasing revenue from other programs?

Low Income Program Challenges

- Several income thresholds for a low income program have been suggested
- As the income threshold goes up the percentage of riders who would be eligible for a discount fare increases

Federal Poverty Level Threshold	2017 Survey Income Threshold	% of Survey Respondents		
		Qualify for Adult Low Income Fare	Qualify for S/D/M or Youth Fare	Total Qualify for Discount Fare
138% FPL	< \$35,000	16%	16%	32%
150% FPL	< \$35,000	16%	16%	32%
185% FPL	< \$45,000	25%	16%	41%
200% FPL	< \$50,000	~29%*	16%	~45%*

* For 200% FPL, the % of survey respondents who would qualify is an approximation and is subject to further clarification.

- As more riders receive a discount, more fare revenue or other long-term dedicated revenue sources must be identified:
 - Other regions do not offer a 50% a discount
 - Other regions have increased other fares and/or eliminated discounts to help offset the fare revenue loss
 - Other regions have obtained legislative funding or corporate sponsorship

Regional Youth Pass Program

High-Level Modeling Results:

- Increase in ridership due to increase in discount from 50% to 70% on passes for youth 12+ and free fares for youth 12 & under
- Revenue loss since increase in trips does not offset the additional discount

Winners:

- All youth riders

Losers:

- Non-youth riders

Challenges:

- How do you offset the revenue loss by increasing revenue from other programs?
- How do you implement program on smart card to track ridership and usage?

College Program

High-Level Modeling Results:

- Significant ridership & revenue loss expected with discontinuing program in Option B
- No impact on ridership expected in Options C & E
- Minimal impact on revenue in repricing programs in Option C and in Option E with 10% discount
- Revenue loss in Option E with 20% & 40% since no increase in trips

Winners:

- Students who use transit and attend participating institutions

Losers:

- Students who do not use transit and attend participating institutions

Challenges:

- In Option B, how do you minimize ridership losses from eliminating the program?
- How do you offset the revenue loss in Option E with a 20% & 40% by increasing revenue from other programs?
- How do you implement significant increases in cost?
- In right pricing of the programs, how do you account for students not tapping?¹⁶

College Program Challenges

- Student fees commonly used to cover cost of the program
- Based on 2016 face value of trips taken, 4 institutions would experience rate increases in addition to 2019 fare increase
- For some, while the percentage increase would be greater than 20%, the total increase in the contract value would be less than \$20,000
- For institutions on rail lines, decrease in pricing in part due to missing taps

	2016 Contract Rate/Student	2016 Face Value of Trips/Student	% Change to Price Appropriately
1	\$18.65	\$93.26	400%
2	\$35.54	\$48.05	35%
3	\$40.20	\$20.86	-48%
4	\$41.00	\$68.62	67%
5	\$46.80	\$22.45	-52%
6	\$47.87	\$13.37	-72%
7	\$51.08	\$77.05	51%
8	\$70.50	\$28.36	-60%
9	\$173.83	\$171.73	-1%

Business Program

High-Level Modeling Results:

- “Right pricing” has a significant impact on contract prices and impact on whether employers opt out
 - Employers who opt out are currently underpriced and would see the largest increase in cost. These employers are more likely to have higher transit use and more costly trips
 - Employers who remain are currently overpriced and would experience a decrease in contract price
- Sign-up rates result in attraction of employers with lower transit use
- There is currently a cross subsidization between employees, employers, SLAs, and employer sizes
- Growth in ridership from increased participation of new employers at higher discount rates does not offset the loss in revenue from the discount

	Option B	Option C32	Option C38	Option E10	Option E20	Option E40
Linked Trips	↓	↓	↓	↓	↓	-
Fare Revenue	↓↓	↓↓	↓↓	↓	↓↓	↓↓↓

Business Program

Winners:

- Employers who are currently overpriced

Losers:

- Employers who are currently underpriced
- Depending on discount, non-EcoPass riders who are not affiliated with an employer to get the discount

Challenges:

- How do you retain larger employers with higher transit use without increasing the revenue loss by offering a greater discount?
- How do you update SLAs & employer buckets to be more reflective of transit ridership?
- How do you minimize employer with high transit usage skewing SLA pricing?
- If discount available to EcoPass is greater than what is available to the general public, how do you address equity concerns, especially as participants using EcoPass are higher income and less likely to be minority than the general population?

Business Program Challenges

- There is a cross-subsidization between SLA/employer buckets
- If SLAs and employer sizes had been priced correctly based on the 2016 fares and ridership in 2016, the cost per employee would have increased for 25% of the eligible employees
- SLA D significant increases in pricing in part due to opening of A line

2016 Pricing (per employee, per year)					
	1-24 emp	25-249 emp	250-999 emp	1000-1999 emp	2000+ emp
A Outer Suburban	\$98	\$85	\$75	\$64	\$60
B Major Transit Center	\$209	\$189	\$173	\$160	\$151
C Downtown Denver CBD	\$532	\$493	\$470	\$459	\$434
D Airport & Home Business	\$544	\$522	\$483	\$470	\$445
2016 Pricing, if SLA approach "Right Priced" to match Face Value of Trips					
	1-24 emp	25-249 emp	250-999 emp	1000-1999 emp	2000+ emp
A Outer Suburban	\$171	\$104	\$54	\$54	\$109
B Major Transit Center	\$201	\$149	\$63	\$82	\$144
C Downtown Denver CBD	\$443	\$388	\$371	\$455	\$213
D Airport & Home Business	\$958	\$1,188	\$1,128	n/a	n/a

Business Program Challenges

- Employers in Zone A with 2,000+ employees would be impacted the most. These employers account for 14% of the eligible employees
- Rates would increase by 80% before accounting for the proposed 2019 fare increase and projected systemwide increase in transit ridership
- There is significant variability in usage rates per employee, highlighting the cross-subsidization between employers
- These employers have employees in multiple SLAs

	2016 SLA Price	2016 Usage Rate/Employee	2016 Face Value of Trips/Employee	New SLA Rate at 2016 Face Value
1	\$60	215 trips/year	\$757	\$109
2		79 trips/year	\$278	
3		40 trips/year	\$121	
4		32 trips/year	\$99	
5		17 trips/year	\$62	
6		11 trips/year	\$32	
7		7 trips/year	\$27	
Avg			32 trips/year	

Business Program Challenges

- Some Master EcoPass programs are significantly underpriced today
- Given restrictions on Master EcoPass contracts, such as the cost of the program cannot be passed through to employers or employees, can make it challenging to secure funding
- It is unclear how Master EcoPass contract holders will respond to significant price increases

Neighborhood Program

High-Level Modeling Results:

- Ridership & revenue loss expected with discontinuing program and loss in third party subsidies from developers and City of Boulder in Options B & C
- Increase in contribution from residents towards transit in Options B & C
- Minimal impact on revenue in repricing programs in Option C and in Option E with 10% discount
- Revenue loss in Option E with 20% & 40% since no increase in trips

Winners:

- NECO residents who use transit

Losers:

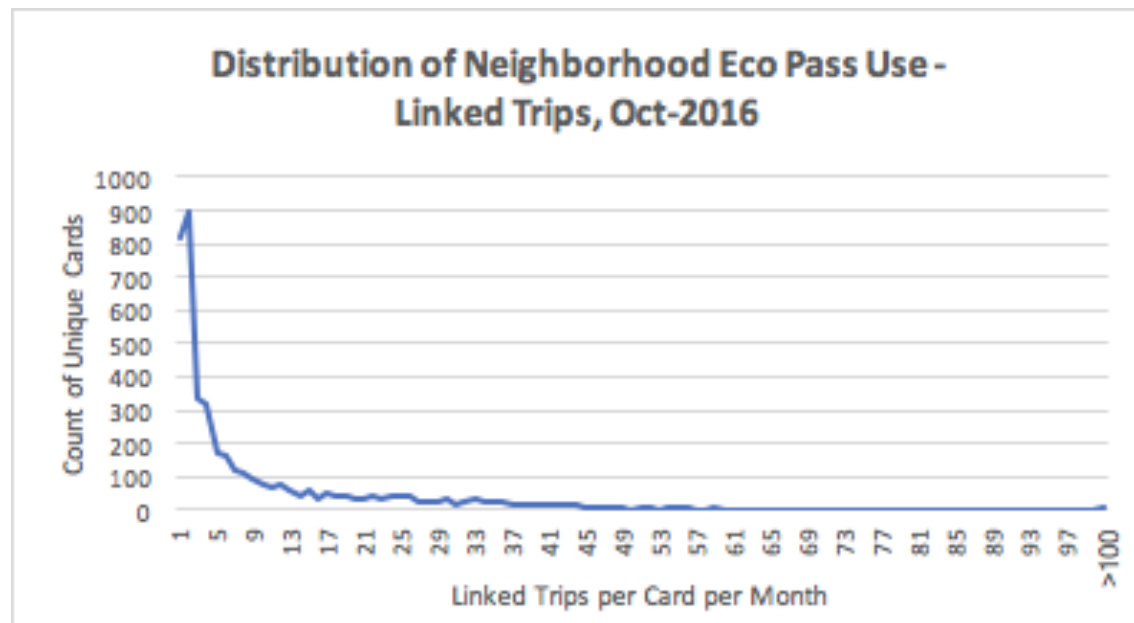
- NECO residents who do not use transit

Challenges:

- In Option B & C, how do you minimize ridership losses from eliminating the program?
- How do you offset the revenue loss in Option E with a 20% & 40% by increasing revenue from other programs?
- How do you implement significant increases in cost?
- How do you address concerns about regional equity?
- Does the cost of administration warrant retaining ~0.5% of RTD ridership?

Neighborhood Program Challenges

- Neighborhood EcoPass (NECO) accounts for ~0.5% of RTD ridership
- Ridership from the program only makes up a small proportion of RTD ridership due to limited participation across the region and low transit use by residents
- The number of households in a neighborhood is 195 households with average size of ~260 residents
- Two-thirds of eligible residents do not use their NECO Pass
- For the residents who use their NECO Pass:
 - Avg # of trips: 10 trips/month
 - Median # of trips: 5 trips/month



Neighborhood Program Challenges

- Option E proposed using SLA maps to help in pricing new neighborhoods for the first year
- Based on review of the average cost per household, there is too much variability to price neighborhoods based on SLAs
 - In City of Boulder, neighborhoods were assigned SLA based on the employer SLA map
 - 37 neighborhoods in City of Boulder were completely in SLA A

City of Boulder SLA Zone A

	2016 Contract per Household	2016 Face Value per Household
Max	\$218.01	\$302.22
Min	\$96.00	\$64.24
Avg	\$120.19	\$144.34
Median	\$128.00	\$121.82