



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

INNOVATION TEAM
WHITE PAPER

REWARDS PROGRAM OPPORTUNITIES FOR TOLL AGENCIES

August 2020

AUTHORS

- Dan Cryan, PE,
K Friese + Associates
- Caroline LaFollette, PE,
K Friese + Associates



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

**INNOVATION TEAM
WHITE PAPER**

ACKNOWLEDGEMENTS

Mary Thomasmeyer,
Commuter.org

Stephan Andriuk, Miami-Dade
Expressway

Natalie Bettger & Sonya
Landrum, North Central Texas
Council of Governments

Randy Evans & Sarah
McDaniel, North Texas
Tollway Authority

Jamie Fischer, Kim Kemp &
Sanjay Senthilkumar, State
Road and Tollway Authority

Richard T. Baker, WSP

Srikanth Koneru. WSP

JEFF DAILEY

Deputy Executive Director
jdailey@ctrma.org

MIA ZMUD

Mobility Innovation Manager
mzmud@ctrma.org

STEVE PUSTELNYK

Director of Community Relations
spustelnyk@ctrma.org

3300 N IH-35, Suite 300
Austin, TX 78705
MobilityAuthority.com

Table of Contents

ACKNOWLEDGEMENTS1

EXECUTIVE SUMMARY2

PURPOSE & BACKGROUND3

INDUSTRY SCAN4

 Literature Review.....4

 Peer Agency Review.....7

 Case Studies.....8

 Case Study Findings.....13

RECOMMENDATIONS & CONCLUSION14

 Recommendations14

 Conclusion17

APPENDICES18

 APPENDIX 1: Case Study | Commuter.org Carpool 2.0 Rewards Program.....18

 APPENDIX 2: Case Study | MDX Frequent Driver Rewards Program.....21

 APPENDIX 3: Case Study | NCTCOG HOV Discount Program23

 APPENDIX 4: Case Study | NCTCOG Tollmate Mobile App and TollPerks Rewards Program.....25

 APPENDIX 5: Case Study | SRTA Commuter Credits Rewards Program.....28

SOURCES32

The Mobility Authority established the Innovation Team in Fall 2018 to stay informed on emerging mobility and transportation technology and introduce opportunities for these emergent technologies and ideas through projects, programs, partnerships and policies. The purpose of these white papers is to provide a high-level of examination into emerging technologies and their case studies to support decision-making for solutions to the problems we face today and tomorrow.

As part of its Innovation and Technology Roadmap, the Central Texas Regional Mobility Authority (Mobility Authority) is investigating how rewards and incentives programs can be leveraged to achieve agency goals. Examples of toll agency goals that could be supported by rewards programs include increasing toll revenue by establishing a frequent driver rewards program, increasing person throughput of express lanes by encouraging people to carpool or use transit, or flattening the demand curve and reducing congestion by offering incentives for off-peak travel on toll facilities.

Prior to embarking on the development of any incentive-based program and to inform planning, the Mobility Authority decided to conduct an industry scan to identify industry applications of rewards program development, implementation, and operation. It also set out to identify best practices and lessons learned.

The industry scan was performed by the K Friese + Associates (KFA) research team in close collaboration with the Mobility Authorities innovation team. The scan approach encompassed a literature review, peer agency research, and case study interviews.

In the course of the study, several broad themes emerged regarding the design and implementation of successful rewards programs:

- They can influence desired behaviors particularly when incentives are meaningful and offered at strategic times, and when travel choices are clearly communicated.
- They require established goals, realistic expectations of outcomes, and commitment of resources for the full program lifecycle including marketing, development, and management (e.g., providing customer support and resolving backend technological issues).
- They must be user-friendly with straightforward eligibility requirements and simple registration and rewards distribution processes. It is also important to have effective marketing and engagement strategy to get the word out to customers and, once enlisted, keep them active in the program.

In light of these themes, this whitepaper provides the following recommendations for the Mobility Authority to consider when deciding whether and how to implement rewards programs in Central Texas:

- Program Planning
 - Set clear goals
 - Perform behavioral economics and market research to refine goals and set objectives
 - Establish performance measures to evaluate program effectiveness
- Program Design & Structure
 - Consider a limited- or short-term rewards program
 - Seek TxDOT support for a regional program
- Operations
 - Streamline customer support
 - Simplify rewards distribution
- Marketing
 - Partner with local employers
 - Develop a cost-effective marketing and engagement strategy

According to McKinsey and Company, customer reward programs in key business sectors (e.g., retail, airlines, hotels, car rental organizations, and restaurants) are growing at a rate of about 9 percent each year, and the number of customers who participate in them hovers at around 50 percent.¹ Within the transportation industry there is a similar trend towards the use of incentives and rewards programs, often in the context of behavioral economics – understanding the role of behavior in transportation choices and uncovering those mechanisms that “nudge” drivers to make changes in the way they travel. An FHWA Exploratory Advanced Research scan titled *Behavioral Economics and Transportation*² shows the emerging interest of behavioral economics and transportation in published literature on the topic as early as 2012 and 2013.

These behavioral economics and “nudge” theories are now being increasingly applied across transportation industry programs – including “pay-as-you-go” insurance, congestion management and congestion pricing, transportation demand management, and shared mobility – with clear connections to customer service and strategic business goals. These programs are often referred to as incentive or rewards programs. Within the tolling industry, they are typically used to attract or gain new customers, create brand loyalty or awareness and increase customer satisfaction (e.g., increase electronic tag ownership and recognize frequency of use), or influence travel decisions and behaviors (e.g., shift travel times out of rush hour, carpool, or ride transit).

The objective of this whitepaper is to explore the use of these types of incentive and reward programs within the tolling and transportation industry. The report begins with results of a literature review of published research on this topic to inform best practices. It then identifies peer tolling agencies that have implemented rewards programs and hones in on several of them as case studies that represent a range of programs of interest to the Mobility Authority. It concludes with a Recommendations & Conclusions section of best practices to help the Mobility Authority decide whether to implement future incentive-based programs, and if so, how to structure them to maximize effectiveness.

The research team conducted an industry scan to gain an understanding of existing rewards programs and current best practices. These activities are summarized in the following four subsections:

- **Literature Review:** The literature review includes summaries of pertinent research and how each source relates to this scan.
- **Peer Agency Review:** The peer agency review contains a high-level overview of rewards programs implemented by toll agencies across the country.
- **Case Studies:** Five of the peer agencies were selected for case study interviews. The case studies provide a closer look at their rewards programs, including their development, challenges encountered, and lessons learned.
- **Case Study Findings:** This section summarizes the findings of the case studies and compares the programs side-by-side in a table.

Literature Review

The following literature review provides insight into the theory and logic behind effective rewards programs that have the propensity to change behavior and mitigate congestion. These resources were selected to help inform this study and its recommendations.

[Using Focused Incentives to Change Commuter Behavior \(Presentation at CommuteCon 2020\)](#)³

Summary: Doug Palmer with Ideas42 gave a presentation at CommuteCon 2020 called “Incentivizing Commuter Behavior.” His presentation describes using incentives to maximize transit capacity, but many of the principles are more broadly applicable to rewards programs in general that might be used by tolling agencies.

Palmer argues that much of the commuter behavior that leads to peak hour congestion is based on commuters operating on “autopilot” rather than making conscious choices. Furthermore, incentives that may be available to commuters are far from their minds at the time that they are making decisions about when to leave home or work to make their commutes.

Palmer’s team conducted an experiment to “interrupt commuting habits” by offering incentives to Chicago Transit Authority riders by text message. Incentives were geared towards flattening the demand curve on the Chicago Red Line on Cubs game days. Incentives were offered to Game attendees who modified their behavior by traveling downtown before 5 pm or after 6 pm were eligible to receive a \$2.25 fare rebate. The rebates resulted in a 17.5% decrease in Red Line rush-hour ridership and a 9.2% increase in overall Red Line ridership.

Applicability to this Study: This experiment showed the effectiveness of strategic marketing that is geared towards “interrupting” commuters’ thoughts as they plan their trips on a daily or weekly basis. It emphasizes the importance of communicating incentives purposefully and directly to users in real-time as they are making transportation decisions amid the cacophony of competing demands in their daily schedules. Text messages, for example, are an effective tool for reaching users at key decision moments when they are unlikely to look up online research about incentive programs.

[Shifting Behavior and Increasing Vehicle Occupancy through Mobile Apps and Incentives \(Session at Association for Commuter Transportation Emerging Mobility Summit, 2020\)](#)⁴

Summary: At the Association for Commuter Transportation (ACT) Emerging Mobility Summit in 2020, Allen Greenberg with the Federal Highway Administration (FHWA), Scott Middleton with EBP, and Vassilis Papayannoulis with Metropia shared results of a study about factors that influence whether people travel using shared trips or ride alone. The study analyzed two different types of shared or single trips: (1) trips made by Transportation Network Companies (TNCs) such as Uber and Lyft, and (2) trips made by private vehicles.

Higher rates of sharing were found among riders who were younger, lower income, or male, and for social trips and weekend trips (compared to trips to work or to the airport, where timing was more critical).

They also created a scenario modeling tool, which illustrated how a city's overall Vehicle Miles Traveled (VMT) metric might be affected by shifts toward these two different types of shared trips. The modeling tool predicted that offering a \$1 reward per trip for shared *private vehicle* trips would reduce VMT in San Francisco approximately three times more than offering the same incentive (\$1/trip) for *TNC* shared trips, since TNCs made up such a small percentage of overall trips to begin with.³

Applicability to this Study: This study illustrated that the same type of reward (\$1 per trip) could have drastically different end results based on who the reward was offered to, and therefore what sort of mode shift it predicated. This point underscores the importance of beginning any rewards program development with a clear understanding of the goal at hand so it can properly inform the structure of the program and the necessary set of stakeholders.

[Expanding Traveler Choices through the Use of Incentives \(Publication, FHWA\)⁵](#)

Summary: In recent years, the use of incentives has been applied to how transportation agencies and other mobility services can address recurring and non-recurring congestion through "nudges" that incorporate behavioral economic concepts and encourage travelers to shift their mode, time of travel, or route. In 2019, FHWA published a report, *Expanding Traveler Choices through the Use of Incentives: A Compendium of Examples*, which offers case studies of programs that provide such incentives designed to encourage individuals to consider these types of shifts in their traveling behaviors.

Conclusions drawn in this report include:

- A review of previous studies on the use of positive incentive schemes to shift travelers to other modes, times, or residential locations found that the effects of the incentives were mixed. Studies that provided free transportation cards (transit passes, etc.) were more effective in changing behavior. The effectiveness of the incentive appeared to depend on the match between the intervention and the target group.
- Gifts, rewards, points, and discounts can have a strong but short-term effect on travel behavior, but often people tend to return to their old travel habits when the programs are discontinued.
- For travel behavior change programs with rewards, points, or discounts, the report recommends:
 - Providing a reward each time the desired behavior occurs when the individual is learning the behavior and only part of the time for those who are regularly performing the behavior.
 - Offering a "chain of rewards" such that there are immediate rewards as well as delayed ones.
 - Trying different reward schedules to find out what works best for the target groups.

Applicability to this Study: The behavioral research found here explores human psychology and what types of incentives are typically most influential. This report provides a helpful array of the types of rewards that the Mobility Authority could offer, and factors to consider so that the rewards would be more likely to effect change among commuters and other travelers.

[Mapping Incentives to Change: How Commutifi's Commuter Score Can Influence Sustainable Commuting \(Paper, Rocky Mountain Institute\)⁶](#)

Summary: This paper discusses the use of behavioral economics for providing a deeper understanding of how people make transportation-related decisions. By applying the concepts of behavioral economics through the use of reference points—frames of comparison that affect our perceptions and decisions, e.g., \$4 peanuts are expensive in a supermarket but cheap in a stadium—into incentive programs to encourage a positive commuting change. According to FHWA's summary of this paper in the previously mentioned publication *Expanding Traveler Choices through the Use of Incentives: A Compendium of Examples*:

"The report [*Mapping Incentives to Change*] identified five best practices for using behavioral economics to encourage change:

- **Choice Architecture:** Use the way in which options are presented to influence choice. Set reference points that serve as goals that participants can use to compare their performance against and work toward. Incentivize both small and large shifts in behavior using a tiered structure of rewards.
- **Round Number Clustering:** In general, individuals are inclined toward round numbers (e.g., 0s, 5s, 10s, etc.), especially in terms of performance scores or accomplishments. The Rocky Mountain Institute recommends increasing rewards or payouts every 5 or 10 points.
- **Time (Temporal) Discounting:** One established behavioral theory is that rewards that are given in the future are perceived as being less valuable than those that are received now. To promote participation in the program, give out rewards earlier in the program.
- **Social Norms:** Peer influence and what is considered appropriate behavior can persuade individuals to make changes or stay in a program. Use this concept to encourage participants to make a public commitment to change and make it possible for them to see how others are doing in comparison to their own performance.
- **Status Quo Bias:** People generally show a preference towards how things are. They resist changing habits and overvalue what they currently have.”⁵

To overcome the status quo bias, the paper argues, behavioral change programs must demonstrate that the alternatives offer substantial benefits as compared to their current travel choices. An alternative that is only perceived as 1.2 times as beneficial to the user, for example, is unlikely to persuade the user to change their habits. To truly effect behavioral change, the alternative behavior should be closer to three times times the value. For example, a program that encourages commuters to walk or bike to work instead of driving alone should also offer a way to mitigate the inconvenience of bad weather, like subsidizing an Uber or Lyft ride.

Applicability to this study: This paper provides significant value in understanding the basic tenets of BE and how to apply them in designing and planning an incentive based, behavioral change oriented program. It demonstrates that the traditional transportation-planning approaches of simply providing more options that offer the time and cost of those alternative options are not enough to create change. A takeaway from this study in planning an incentive program, the Mobility Authority must invest in research to fully understand how people make decisions (related to the program goal), what shapes their current preferences, and what keeps them from trying a potentially better alternative. Without extensive knowledge of the needs and behaviors of commuters and proper understanding about how people make decisions, programs that seek to encourage large-scale change by individuals often fail.

Peer Agency Review

The research team also conducted a review of toll rewards programs across the country to learn about the nature and extent of existing programs. A summary of these programs is provided in Table 1.

Table 1: Industry Scan of Toll Rewards Programs

Agency	Program	Type	Incentive	Link
Colorado DOT	<ul style="list-style-type: none"> ExpressToll Rewards 	<ul style="list-style-type: none"> Prepaid account incentive program 	<ul style="list-style-type: none"> Toll discounts Local deals 	<ul style="list-style-type: none"> https://www.expresstoll.com/HowDoesItWork/HowDoesItWork
Commute.org*	<ul style="list-style-type: none"> Carpool 2.0 Rewards Program 	<ul style="list-style-type: none"> Carpool incentive program 	<ul style="list-style-type: none"> E-gift cards 	<ul style="list-style-type: none"> https://commute.org/get-rewarded/apply-for-carpool-incentives
FasTrak	<ul style="list-style-type: none"> FasTrak Flex 	<ul style="list-style-type: none"> Carpool, motorcycle, or Clean Air Vehicle (CAV) incentive program 	<ul style="list-style-type: none"> Toll-free travel 	<ul style="list-style-type: none"> https://www.bayareafastrak.org/en/guide/doINeedFlex.shtml
Metro ExpressLanes (Metro & FasTrak)	<ul style="list-style-type: none"> Carpool Loyalty Program 	<ul style="list-style-type: none"> Carpool incentive program 	<ul style="list-style-type: none"> Drawing to win toll credits 	<ul style="list-style-type: none"> https://www.metroexpresslanes.net/offers-discounts/carpool-loyalty/
	<ul style="list-style-type: none"> Transit Rewards Program 	<ul style="list-style-type: none"> Peak hour transit ridership incentive program 	<ul style="list-style-type: none"> Toll credit 	<ul style="list-style-type: none"> https://www.metroexpresslanes.net/offers-discounts/transit-rewards/
Miami-Dade Expressway (MDX)*	<ul style="list-style-type: none"> Frequent Driver Rewards Program 	<ul style="list-style-type: none"> Loyalty incentive program 	<ul style="list-style-type: none"> Cash rewards 	<ul style="list-style-type: none"> https://www.mdxway.com/frequent-driver/landing
North Central Texas Council of Governments (NCTCOG)*	<ul style="list-style-type: none"> HOV Discount Program 	<ul style="list-style-type: none"> Carpool incentive program 	<ul style="list-style-type: none"> Toll discount 	<ul style="list-style-type: none"> https://www.nctcog.org/trans/manage/tdm/gocarma
North Texas Tollway Authority (NTTA)*	<ul style="list-style-type: none"> TollPerks Rewards Program 	<ul style="list-style-type: none"> Loyalty incentive program 	<ul style="list-style-type: none"> Gift cards Local deals 	<ul style="list-style-type: none"> https://tollperks.com/
State Road and Tollway Authority (SRTA)*	<ul style="list-style-type: none"> Commuter Credits 	<ul style="list-style-type: none"> Off-peak commute or transit incentive program 	<ul style="list-style-type: none"> Toll credits 	<ul style="list-style-type: none"> https://www.peachpass.com/shiftcommute/
The Toll Roads of Orange County	<ul style="list-style-type: none"> Frequent Driver Discount 	<ul style="list-style-type: none"> Loyalty incentive program for prepaid accounts 	<ul style="list-style-type: none"> Toll discount during subsequent statement period 	<ul style="list-style-type: none"> https://thetollroads.com/help/faq/1520
Virginia DOT	<ul style="list-style-type: none"> Chesapeake Expressway Discount Program 	<ul style="list-style-type: none"> Loyalty incentive program 	<ul style="list-style-type: none"> Reduced toll rate for members (requires membership fee) 	<ul style="list-style-type: none"> http://www.chesapeakeexpressway.com/E-ZPass/discount.htm
	<ul style="list-style-type: none"> Dulles Greenway VIP Miles Frequent Rider Program 	<ul style="list-style-type: none"> Loyalty incentive program 	<ul style="list-style-type: none"> Cash rewards 	<ul style="list-style-type: none"> https://www.dullesgreenway.com/vip-program/
Washington State DOT	<ul style="list-style-type: none"> Good to Go! 	<ul style="list-style-type: none"> Early adopter incentive program (prior to SR 99 tunnel tolling) 	<ul style="list-style-type: none"> Toll discounts Eliminates transponder cost 	<ul style="list-style-type: none"> https://www.wsdot.wa.gov/news/2019/05/01/introducing-sr-99-tunnel-toll-incentive-program

*Denotes agency whose rewards program was selected for a case study interview.

As is evident from Table 1, the program types and incentives offered vary considerably across agencies. The most common behaviors incentivized by these programs were carpooling (which increases person throughput and helps to maintain speed performance) and loyalty, or frequent usage of toll facilities. While the Chesapeake Expressway Discount Program required a membership fee, this appears to be the exception. Most programs allowed free enrollment and offered rewards in the form of discounted toll rates, toll credits, or cash rewards to incentivize the desired behavior.

Case Studies

During the course of this industry scan, the research team selected five toll rewards programs for further investigation. These programs (marked with an asterisk in the table in Figure 1) were selected for a deeper dive based on the following factors:

- They have been implemented in urban contexts similar to Austin.
- They have objectives that are consistent with the Mobility Authority’s strategic plan, such as customer loyalty and capacity optimization.
- They form a representative cross-section of incentivized user behavior, program structure, and (in some cases) use of a tool such as a mobile app to help customers conveniently access the rewards program.

The research team conducted informational interviews with these five agencies to learn more about the challenges they have encountered and the successes they have achieved. The resulting lessons learned are documented in this section. The full case studies can be found in the Appendix.

[Commute.org Carpool 2.0 Rewards Program](#)⁷

Commute.org is a public agency that promotes Transportation Demand Management (TDM) in San Mateo County, CA, south of San Francisco. Local agencies approached Commute.org for help with promoting carpooling in the region in preparation for the [Highway 101 Express Lanes](#). As a result, Commute.org implemented the Carpool 2.0 Rewards Program (which is now on its second iteration, Carpool 2020).

Carpool 2.0 distributes digital e-gift cards to commuters who carpool to or from work (eligible trips must begin or end in San Mateo County). Carpool trips are tracked through the [RideAmigos](#) platform, which links directly to users’ Scoop and Waze accounts. The program includes a marketing approach focused on direct outreach to employers to get the word out about the rewards program. Commute.org has taken several measures to streamline customer communications, including creating a one-minute “how-to” video for account setup.

Commute.org has used the following metrics to measure program performance, which has exceeded expectations:

- **Number of Participants:** Commute.org’s original carpool reward program had just under 200 participants in the year leading up to the Carpool 2.0 launch. Carpool 2.0 has had dramatically higher participation; as of December 2019, 1,961 participants had received rewards (others registered but never completed carpool trips, or completed trips that did not qualify for rewards).
- **RideAmigos Data:** Commute.org tracked carpool activity (number of users who logged at least one carpool trip, number of carpool miles, and number of carpool trips) on the RideAmigos platform. From 2017 through 2019, over 1,950 carpoolers tracked over 200,000 one-way carpool trips, totaling 4.7 million carpool miles. Cost savings of Carpool 2.0 participants totaled \$1,325,000, with CO₂ savings topping 950 tons.
- **Participant Surveys:** Commute.org has used quarterly surveys to gather feedback on the program from participants. 87% of survey respondents said they were either satisfied or very satisfied with the reward amount, and 84% rated the process of earning the reward as easy or very easy. 40% reported that they drove alone before participating in the program.

In future iterations of the program, Commute.org aims to find new ways to promote three-person carpools, attract more carpool drivers, and provide a referral reward program. They also plan to migrate their other programs to the Ride Amigos platform.

Figure 1:
Commuter.org
Carpool Rewards
Program Banner



MDX Frequent Driver Rewards Program⁸

The Miami-Dade Expressway Authority (MDX) operates 35 miles of toll facilities in Miami-Dade County, Florida. In 2016 MDX launched the Frequent Driver Rewards Program, through which customers can register to qualify for cash rewards at the end of the fiscal year if they spend at least \$150 in MDX tolls and maintain an active SunPass[®] transponder account. Cash rewards are based on funds available to MDX at the end of the year and are commensurate with the amount each customer spent in tolls. By providing toll rebates to customers, the program aims to increase transponder penetration, reduce the number of pay-by-plate accounts, and increase customer satisfaction.

One challenge that MDX has encountered is how to give customers who switch transponders mid-year a way to link transactions from both transponders to earn rewards for the total amount. To resolve this issue, MDX amended its Terms and Conditions to define a clear administrative process for these customers. As processes like this become more streamlined and automated, less staff time is required for customer support and as a result, more funds are anticipated to become available for rewards at the end of the year.

It is difficult for MDX to determine whether the program has successfully increased transponder penetration because Florida's Turnpike Enterprise has offered concurrent incentives with the same goal. One benefit of the program has been learning that most MDX customers who enrolled in the program actually spend less than \$150 annually in tolls (since only about one third of customers who enrolled ended up being eligible for rewards).

Figure 2: MDX
Frequent Driver
Rewards Program
Website Header



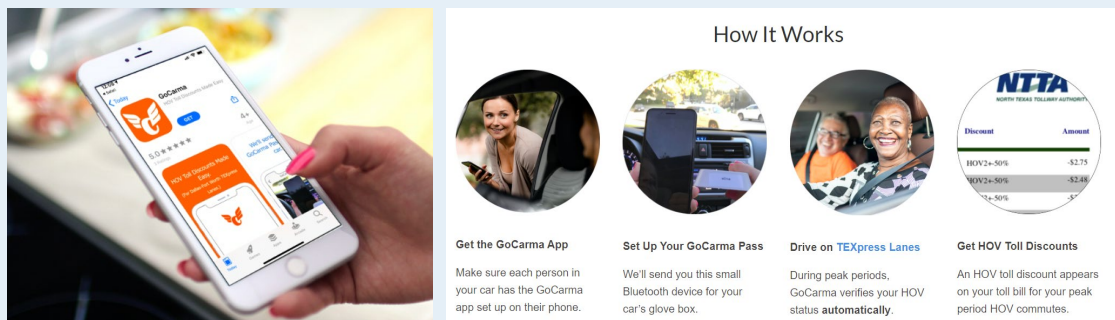
NCTCOG HOV Discount Program⁹

The North Central Texas Council of Governments (NCTCOG) created the High Occupancy Vehicle (HOV) Discount Program to manage congestion, increase person throughput, and maintain the 50-mph guaranteed speeds for Express toll lanes in the Dallas-Fort Worth metroplex. NCTCOG also sought a new High Occupancy Vehicle (HOV) enforcement method, since the former process of self-declaration and roadside police enforcement disrupted traffic flow and increased safety risks for highway patrol officers.

NCTCOG decided to implement the HOV Discount Program with a 50% discount to HOVs in the Express toll lane. The program uses a mobile app called [GoCarma](#), which verifies HOV status by detecting other smartphones (or occupant passes) in the vehicle using Bluetooth technology. While this system required significant backend integration, NCTCOG reports that it has generated positive user feedback and is simple for customers to use – as long as Bluetooth is enabled on the smartphone with the GoCarma app, no action is required on a day-to-day basis to track trips and earn the discount.

NCTCOG reported that it is challenging to determine whether the program has increased the carpool rate, since with the previous system some users gamed the system by self-reporting as HOV when in fact they were traveling alone. This issue created a faulty baseline for carpooling rates prior to the HOV Discount Program. NCTCOG also reported that it is difficult to measure the program’s effectiveness in terms of protecting the 50-mph guaranteed speed in the Express toll lanes because volumes in the toll lanes are also impacted by other factors, including dynamic pricing.

Figure 3: NCTCOG HOV Discount Program with GoCarma Mobile App



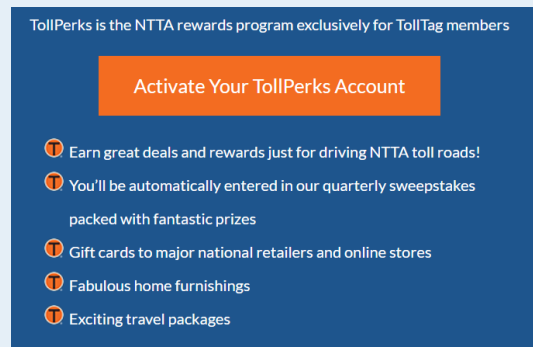
NTTA TollPerks Rewards Program¹⁰

The North Texas Tollway Authority (NTTA) established the TollPerks rewards program for customers using NTTA toll facilities. For every dollar spent on NTTA tolls, customers accrue 100 TollPerks points. A third-party vendor, Online Rewards, uses backend data from the TollTag transponders to calculate and distribute the rewards earned by each TollPerks participant. Points can be exchanged for prizes such as travel packages, major retailer gift cards, and discounted event admission.

NTTA’s Tollmate mobile app uses push notifications to promote TollPerks rewards and encourage enrollment into the program. As of early 2020, TollPerks had approximately 430,000 members. Due to privacy concerns expressed by customers, the app does not track users’ personal locations to promote location-specific rewards (e.g., a gift card to a nearby Starbucks).

NTTA reports that general user feedback on TollPerks has been positive, based on focus groups they conducted annually and extensive surveys they distribute every two years. One challenge NTTA encountered with the program was receiving numerous emails asking if it was a scam, because people did not expect a toll agency to distribute prizes.

Figure 4: NTTA TollPerks Program Logo and Description



SRTA Commuter Credits Rewards Program¹¹

The State Road and Tollway Authority (SRTA) in Atlanta manages toll collection on Georgia's Express Lanes System. In efforts to better manage traffic flow in its Express Lanes, SRTA implemented a Commuter Credits program. Phase 1 of the program offered incentives to commuters for changing their travel behavior from driving alone during the peak hour to any of the following options:

- Shifting commutes to off-peak times
- Using public transit
- Carpooling

The SRTA had minimal success with their carpool incentive program and it was ended after Phase 1 of the Commuter Credits program was completed. However, the "Shift Commute" and "Ride Transit" elements of the program generated enough participation to justify their continuation into Phase 2 of the Commuter Credits program.

As with Phase 1, Phase 2 is based on establishing a baseline of individual commuter behavior, then incentivizing changes in behavior. If commuters shifted their commutes outside of the peak hour or rode transit instead of driving, they were eligible to receive toll credits through their PeachPass accounts.

Conducting the program in phases with set start and end dates for each phase (as opposed to a permanent year-round program) has allowed SRTA to make incremental modifications with each phase. SRTA is currently working to consolidate the data environment and standardize tools and processes to increase program efficiency for future phases.

SRTA has not yet defined performance metrics for the program. In the future, SRTA aims to evaluate effectiveness in terms of whether new travel behaviors are sustained after the incentives end. They are also currently developing a target speed for measuring speed performance, which was the original impetus for the program. Other metrics they have considered include:

- Number of participants
- Total number of peak period SOV trips diverted during program
- Number of toll trips per participant per month (for Ride Transit, this would be compared with the number of transit trips per participant)
- Number of toll trips per participant per month in peak hour (the goal is to reduce this number)

Figure 5: SRTA Shift Commute Graphic

Shift Commute is one part of the Commuter Credits Program.

Shift Commute – Earn Toll Credits



Welcome to **Shift Commute**, part of the Commuter Credits Program. As a Personal Toll Peach Pass account holder and frequent user of the I-85 Express Lanes, congratulations on taking the first step in earning up to \$120 in toll credits over three months by shifting the time of your morning and evening commutes!

Earn credits for shifting as little as one trip!

Case Study Findings

While motivations and mechanisms for these programs vary, they generally seek to incentivize changes in a specific behavior (such as carpooling, taking transit, or using transponders) to maximize toll lane capacity, improve speed performance, retain customers, and streamline agency operations.

The rewards that the programs offer as incentives take a variety of forms, including:

- Toll discounts
- E-gift cards
- Credits to users' toll accounts
- Cash rewards

These agencies have encountered the following challenges while implementing these programs:

- Finding solutions to technical issues with data integration or mobile app connectivity
- Simplifying the customer experience
- Maintaining social equity
- Finding effective, affordable methods for program marketing and rewards distribution
- Measuring program performance
- Providing customer support with limited agency resources

A summary of the findings from the case studies (including lessons learned by agency) is provided in Table 2.

Table 2: Summary of Case Study Findings

	Commute.org Carpool 2.0	MDX Frequent Driver Rewards Program	NCTCOG HOV Discount Program	NTTA TollPerks	SRTA Commuter Credits
Location	• San Mateo County, CA	• Miami-Dade County, FL	• Dallas-Forth Worth Region	• Dallas-Fort Worth Region	• Atlanta Region
Objective	• Increase carpool rate to prepare for Express Lanes	• Provide frequent user discount • Increase transponder penetration rate	• Improve speed performance on facilities	• Provide frequent user discount • Increase transponder penetration rate	• Improve speed performance on facilities
Strategy	• Offer e-gift card rewards to commuters for carpool trips	• Offer cash back rewards to SunPass customers who spend at least \$150/year in tolls	• Offer HOV toll discount during peak periods with GoCarma app	• Offer points-based rewards for using NTTA toll facilities	• Offer toll credits to customers who increase their transit usage or off-peak commuting
Cost (approx.)	• \$200,000 for marketing and rewards, annually	• \$6 million for rewards and \$300,000 for operations, annually	• \$2 million, annually	• Unknown	• Unknown
Participation (approx.)	• 2,000	• 260,000	• 15,000	• 430,000	• 500
Lessons Learned	<ul style="list-style-type: none"> • Distribute rewards through Tango Card. • Streamline customer service communications. • Expect app connection issues. • Work with employers to get the word out. • Consider referral program. • Leverage private apps to advertise program. • Use a common platform for multiple programs. 	<ul style="list-style-type: none"> • Have FAQs and Terms and Conditions reviewed by legal team. • Make operations electronic to minimize operational costs. 	<ul style="list-style-type: none"> • Set realistic expectations for backend integration timelines. • Make day-to-day operations simple and automatic for the user. • Provide a way for non-smart phone users to access the program for social equity. 	<ul style="list-style-type: none"> • Use push notifications to promote rewards using mobile apps. • Privacy concerns may prohibit location-specific rewards (e.g., a gift card to a nearby Starbucks). • Use branding and communications to reassure customers that the program is not a scam. 	<ul style="list-style-type: none"> • Establish a seasonal program to incentivize commuter behavior changes and make incremental modifications to program. • Use email blasts for cost-effective marketing. • Make registration simple for users. • Use data integration and visualization tools.

Recommendations & Conclusion

When evaluating the rewards program concepts from this industry scan, the unique context, challenges, and opportunities of the Mobility Authority must be taken into account.

For instance, most of the case studies dealt with agencies with access to their own transponder data. Since the Mobility Authority relies on TxTag backend operations, some of the data integration capabilities of these programs would be difficult if not impossible. However, many elements of the case studies could be implemented by the Mobility Authority independent of TxTag, by having customers register for the program independent of their tag provider or using third party platforms such as Scoop, Waze or Online Rewards.

Recommendations

Based on the industry scan described in this whitepaper, the following recommendations are best practices for the Mobility Authority to consider if they choose to develop a rewards program. They are organized into the following categories: Program Direction, Program Structure, Operations, and Marketing.

Program Planning and Direction

Set Clear Goals

The programs from the case studies varied significantly in terms of goals and objectives. Some hoped to increase electronic tag ownership or encourage increased use of the toll facilities, while others hoped to cause a shift in commute mode from driving alone to carpooling or using transit. Regardless, program goals targeted a very specific and measurable outcome (operational improvement or increase in customer loyalty) or a clear desired behavior change. Program objectives define the key program elements to achieve the goal outcomes.

Previously conducted research on Mobility Authority customers and internal data sources should inform the goal setting process. In crafting the goal, review the following questions:

1. Does the goal address an operational or customer loyalty issue or problem which would benefit from a specific, shift in current behavior(s)?
2. Is the goal realistic and achievable?

There may be opportunities to integrate or couple this effort with other initiatives, such as sharing data with other regional agencies, refining performance metrics, or leveraging mobile apps. But it is recommended that the focus of the program remain on the primary goal(s)—without getting sidetracked.

The Mobility Authority is currently partnering with the University of Texas Center for Transportation Research (UT-CTR) to explore how agencies in the region can work together to set and achieve mobility goals. The findings of this study will help inform this goal setting process that should precede development of a rewards program.

Perform Behavioral Economics and Market Research to Refine Program Goals and Set Objectives

The sources in the Literature Review in this report make it clear that effecting change in behavior is not as simple as it looks. Incentive-based programs have been shown to have mixed results, based on factors such as what incentives are offered, how they are communicated to customers, how they are earned, when they are distributed, and how valuable they seem to the target market. Another factor to consider is behavior shift that is required for program participants to qualify for the incentive. Success lies in setting realistic and achievable behavior targets and matching the reward to the required level of effort.

As a first step in planning a rewards program, and with a specific goal in mind for the program, it is recommended that the Mobility Authority conduct behavioral economics and/or market research with the target audience to test the concept of the program, refine the program goals, and develop actionable objectives. Involving a team member with a behavioral economics background would

help gauge the the target audience’s receptivity level as well as insights on their current behaviors and how they make decisions (related to the program goal), what shapes their current behavior and decision preferences, and what keeps them from trying a potentially better alternative. The outcome of this research informs the next step, which is refining the goal and setting objectives for the program, before planning the program structure.

Establish Performance Measures to Evaluate Program Effectiveness

It is important to establish performance measures so that program effectiveness can be evaluated regularly and changes can be made to the program if necessary. These performance measures will tie back to the goals and objectives set for the rewards program, which will be informed by the behavioral economics research. Examples of performance measures used (or considered for future use) by the agencies interviewed for this scan include:

- Number of program participants
- Number of SOV trips diverted during peak period (diverted to carpools, transit, or off-peak travel, depending on the nature of the program)
- Increased transponder penetration
- User feedback based on surveys and focus groups
- Improved speed performance in managed lanes

To understand the impact of the rewards program, it is critical to track performance measures that consider the outcomes of the program (such as increased transponder penetration or improved speed), along with the outputs (such as number of program participants). Performance measures should be determined at the beginning of the program so that data can be collected to make the specific metric easy to track. For example, the Mobility Authority may decide to determine a pre-program baseline of peak period conditions in managed lanes to assess the impacts of a rewards program. Or it may be useful to ask customers when they set up their TxTag accounts whether the rewards program influenced their decision to use a transponder.

Program Design & Structure

Consider a Limited- or Short-Term Rewards Program

While any rewards program should first be piloted for a short-term to allow for trouble-shooting and incorporating initial feedback, SRTA took this principle a step further. They rolled out their program using an iterative process. After conducting a limited term pilot of their program, they evaluated results and analyzed feedback from program participants, and applied those insights to refine the program. To date the program has been carried out in two discrete phases rather than year-round.

A short-term rewards program could be a beneficial option for the Mobility Authority also. SRTA found that conducting short-term rewards programs had multiple benefits, including:

- Allowing the agency to make incremental modifications to programs, technically or administratively
- Establishing customer baselines for travel behavior from which to incentivize change
- Generating interest in program participation by offering new rewards for a limited time
- Limiting or minimizing financial obligations and risk

Seek TxDOT Support for a Regional Program

Another key partner to consider is TxDOT, another operator of toll roads in Central Texas. For NCTCOG’s HOV Discount Program, TxDOT absorbs the cost of the discount on TxDOT facilities. It is possible that the Mobility Authority could initiate a similar carpool incentive program with a wider geographic reach than just Mobility Authority facilities, by coordinating with TxDOT to reach a similar arrangement. TxDOT’s participation would increase the value of the program by expanding the number of qualifying roads, potentially increasing overall participation. This could in turn lead to the benefit of greater adoption of TxTag transponders which would be required for participation in the HOV reward program. This sort of regional collaboration would amplify the operational benefits

of a rewards program in the Austin area by reducing the number of single occupancy vehicles (SOVs).

Operations

Streamline Customer Support

Steps can be taken during the design phase of a rewards program to reduce the operational burden associated with managing and fulfilling incentives associated with the program. One way to do this is to streamline customer support by clearly conveying essential information about the program through marketing and communication channels. Related to this, measures to reduce the operational burden of operating a rewards program from a customer service perspective include:

- Create strong marketing messages that convey the program focus and reward (i.e., “Carpooling = \$100,” as shown in Figure 2)
- Produce how-to/marketing video that describes the program, how to sign up, how to participate and earn rewards, the schedule reward payouts, and other information.
- Anticipate questions and publish FAQs on the program’s webpage; add to the FAQs over time.
- Develop template responses to questions received via email
- Thoroughly vet Terms and Conditions prior to program launch, to minimize legal risk and customer support needs

Simplify Rewards Distribution

In the original version of their Carpool Rewards Program, Commute.org mailed gift cards to customers who earned rewards. Administrative difficulties (such as apartment numbers not being included in addresses on file) made this process cumbersome and costly. They have since switched to using Tango Card to distribute digital e-gift cards via email. While much more efficient, this process still has the potential for snags, like corporate email servers blocking the emails that contain the rewards.

The lesson to be learned here is that whatever the reward – whether toll credits, e-gift cards, or cash back – care should be taken to create a distribution method that is digital and as automated as possible. This will improve customer satisfaction and decrease staff time needed to oversee rewards distribution.

Marketing and Engagement

Partner with Local Employers

Commuter.org also shared that partnership with employers was key to getting the word out to commuters about the incentive program.

As the Transportation Management Association of Central Texas, Movability has established strong relationships with local employers to promote mobility and commuting best practices. Movability helps employers learn about options, connect with service providers and other employers, and develop and implement policies.¹²

Therefore, one recommendation from this study is that the Mobility Authority partner with Movability to raise awareness of any new incentive programs among the business community. Other regional partners could include Commute Solutions and the region’s Chambers of Commerce.

Commuter.org noted in their case study interview that October was an advantageous time of year to launch a TDM program involving employer outreach, since it coincides with many employers’ benefit fairs. If the Mobility Authority decided to make employer outreach a significant part of its marketing strategy, October would be a good launch timeframe to consider.

Develop a Cost-Effective Marketing and Engagement Strategy

In addition to working with employers, this industry scan highlighted other marketing and program engagement techniques that agencies found to be effective, including text messages and email blasts.

As Doug Palmer shared in his presentation “Incentivizing Commuter Behavior,” it is pivotal to lay transportation options (including any incentives) before commuters at the times when they are making decisions about how to travel, such as sending text messages about rewards for off-peak travel on the day of a major sports event.

On a similar note, SRTA mentioned that email blasts were the marketing methods that they found to be most cost-effective for the Commuter Credits program. Together, these findings indicate that obtaining customer contact information (especially email addresses and cell phone numbers) would be extremely helpful to enable marketing that is timely, specific, and low-cost.

Commute.org staff noted their future goal to develop a referral program, since they have found word-of-mouth marketing to be effective among the employers and program participants they work with.

Conclusion

The findings of this whitepaper are intended to help inform the Mobility Authority’s choices about whether to offer a rewards program, and, if so, how to structure it and what incentives to offer. The research, case studies, and lessons learned will serve as a helpful resource for the Mobility Authority’s next steps towards enhancing the customer experience.

APPENDIX 1: Case Study | Commute.org Carpool 2.0 Rewards Program

Prepared by Dan Cryan, P.E. and Caroline LaFollette, P.E. (K Friese + Associates) based on a call held on April 13, 2020 with Mary Thomasmeyer (Commute.org) and members of the CTRMA Innovation Team.

Overview

Commute.org

Commute.org is a public agency with a 20-year history of Transportation Demand Management (TDM) work in San Mateo County, which includes the major commuter corridor between San Francisco and Silicon Valley.

Representing an alliance of 17 cities and San Mateo County, Commute.org receives funding from the City/County Association of Governments of San Mateo County (C/CAG), the San Mateo County Transportation Authority (TA), the Bay Area Air Quality Management District (BAAQMD), and the Metropolitan Transportation Commission (MTC).

The agency's primary mission is to reduce the number of drive-alone vehicles traveling to, from, and within San Mateo County. To this end, it provides first- and last-mile shuttle services to and from major public transportation stations, as well as working directly with employers and employees to provide TDM programs and services.

Carpool Rewards Program Origin

A few years ago, Commute.org was approached by local agencies for help with a carpool incentive program to prepare commuters for the Highway 101 Express Lanes that are scheduled to open in 2022, by increasing the carpool rate prior to the Express Lanes opening to traffic. High Occupancy Vehicles (HOVs) (with at least 3 occupants) and buses will ride the new Express Lanes for free, while Single Occupancy Vehicles (SOVs) will be required to pay a toll to use the lane.

The original Carpool Rewards Program had a simple structure. Participants submitted the names and email addresses of their carpool participants and supervisor, then received a \$50 gas gift card in the mail. No trip information was provided, and carpooling was honor system-based, not verified.

Program Structure

Carpool 2.0 is the second iteration of the Carpool Rewards Program. Major updates to the program include:

- Hosting the program on the RideAmigos platform, which integrates with Scoop and Waze accounts for carpool trip tracking;
- Issuing rewards based on number of carpool days (any day that you carpool to work counts as a carpool day, even if you only carpool in one direction, to or from work; Commute.org reached out to participants who logged weekend trips to verify that they were work trips);
- Distributing digital e-gift cards as rewards (eliminating the expensive and cumbersome mailing process); and
- Expanding rewards options to include a wide variety of gift card options (Amazon, REI, Airbnb, etc. or even donating reward money to nonprofits), not only gas gift cards.

Partnerships with RideAmigos, Scoop, and Waze have been extremely helpful, both for trip reporting and program promotion. Once users link their Scoop and Waze accounts to RideAmigos, the RideAmigos platform automatically tracks carpool trips made using Scoop or Waze, making the process very easy for the commuter.

Program Participation

The first iteration of the rewards program had just under 200 participants in the year leading up to the Carpool 2.0 launch. Carpool 2.0 has had dramatically higher participation, with 1,961 participants having received rewards as of December 2019, and an even higher number registered but never completed the carpool trips, or their trips did not qualify.

Marketing

The outreach strategy was focused on direct connections with employees at their workplaces. The timing of the program launch in October 2018 was fortunate because October is a popular time of year for employers to hold benefit fairs. Direct outreach at benefit fairs and other events has been an effective way to get the word out.

During the program launch, Commute.org also used digital billboards, social media, and direct mail to residents. Employers also pushed out the program through their own communication channels, and Waze pushed it out on their app. Some people who were already using the RideAmigos platform saw Carpool 2.0 there and decided to join. There were no radio or television ads, apart from a local news station doing a segment on an initial press release.

Since the rewards program is limited to carpool trips to, from, or within San Mateo County, Commute.org does not promote it through public transportation agencies or other regional organizations with jurisdictional coverage outside of San Mateo County.

Rewards

Carpool 2.0 participants receive rewards as a \$25 e-gift card (which they select from approximately 85 options) for every 10 days of carpooling. Funding for the rewards primarily comes from the City/County Association of Governments of San Mateo County (C/CAG), and there is a limit of four rewards per person (for an individual total of \$100). Rewards are distributed via email by Tango Card, who offers their services for free (Commute.org only pays for the value of the rewards themselves).

The only challenge with Tango Card has been that when participants register with their work email addresses, high security email servers sometimes reject the email containing the rewards links. To remedy the situation, Commute.org staff reach out monthly to participants with unredeemed rewards to offer to send their rewards to a personal email address.

Program Costs

From the program launch in October 2018 through December 2019, Commute.org budgeted a total of \$400,000 for the program, which included \$40,000 set aside for marketing. The funds remaining at the end of 2019 (approximately \$200,000) were rolled over to fund 2020 carpool rewards. Major cost drivers are marketing, rewards, and staff time to review tracked trips.

Staff Requirements

It takes about four hours per week to review all the claims on the platform to make sure that trips qualify for rewards by starting or ending in San Mateo County (pass-through trips do not qualify).

Commute.org has assigned three staff members to monitor the general customer support email inbox due to the large volume of emails that come in on a regular basis.

To streamline customer support efforts, Commute.org has:

- Drafted standard responses to the most common questions, which are easily copied and pasted into emails to customers.
- Posted FAQs to the program website.
- Created a one-minute “how to” video that answers many questions about account setup. It is easier to provide this link in an email response than to type out multiple paragraphs describing the process. It is rare to get follow-up questions after sending the video link, whereas each email response used to lead to 1-2 follow-up questions, consuming more staff time.

Feedback from Participants

The main feedback from participants is a desire for increased rewards. Another thing people want is a referral program, which Commute.org is looking into implementing.

Account setup has multiple steps: make account on RideAmigos platform, link that account to Scoop or Waze accounts, then start carpooling. For first-time users, this process can be confusing. The “how to” video has been a helpful too. Additionally, new participants often do not understand the relationship between

Commute.org, RideAmigos, Scoop, and Waze. Despite efforts to make communications simple and clear, this system can cause confusion.

Scoop and Waze do not share the number of people in a carpool, but participant surveys have shown that 75% of carpools have only two people. Since the express lanes will require three people per HOV, Commute.org would like to find a way to incentivize three-person carpools soon.

Technical Challenges

Sometimes the API connecting the RideAmigos platform to Scoop and Waze apps disconnects so that Scoop and Waze trips are not counted on the Ride Amigos platform. This is the result of one of the apps updating and causing an issue with the connection. This problem interferes with participants receiving their rewards, and also with Commute.org receiving accurate program data.

When this happens, Commute.org generally encourages participants to just keep carpooling to earn rewards after reconnecting their accounts, and that there are plenty of funds available for rewards. In one case, Commute.org was able to use screenshots as a workaround to verify trips and distribute a reward. Feedback on Commute.org's customer service when these issues occur has been very positive.

Upcoming Initiatives

Commute.org plans to find new ways to promote 3-person carpools, attract more carpool drivers, and provide a referral reward program because word of mouth encouragement can be quite effective. They also plan to migrate their other programs to the Ride Amigos platform.

Lessons Learned

Commute.org offers the following summary of lessons learned from the Carpool 2.0 Program:

- E-gift card distribution through Tango Card made it easy to administer rewards at the scale that was needed.
- A high-touch customer service experience was required.
- Connected apps (Scoop and Waze) are great for validated data, but be prepared for technical issues.
- Employers promoting the program to their employees is critical for getting people to participate.
- 2.0 brought a lot of new users to the STAR (Ride Amigos) platform, which increased participation in other Commute.org programs.

APPENDIX 2: Case Study | MDX Frequent Driver Rewards Program

Prepared by Dan Cryan, P.E. and Caroline LaFollette, P.E. (K Friese + Associates) based on a call held on April 8, 2020 with Stephan Andriuk (MDX) and members of the CTRMA Innovation Team.

Overview

MDX Facilities

The Miami-Dade Expressway (MDX) is a user-funded agency founded in 1994 to improve mobility and transportation in Miami-Dade County. MDX operates five express toll facilities in the County (35 total centerline miles), as shown in Figure 6.

MDX averages about 1.5 million transactions per day, collected by transponder and toll-by-plate payment options. Approximately 70% of users pay by transponder (available as a box or sticker), while the remaining 30% pay online via toll-by-plate. Toll-by-plate rates are twice that of the electronic transponder rate. MDX toll rates are static and not dynamic for congestion pricing.

Program Origin

In 2010 MDX converted the expressway system from a closed toll collection system (cash-based) to open road tolling (by electronic tag or license plate). At the same time, MDX adjusted rates and added more toll gantries so that tolls correspond more directly to the distances traveled by customers (i.e., customers who only traveled a short distance are now only charged a fraction of the price to travel the full facility).

Due in part to responses to changes in the rate structure and some rate increases, MDX launched the Frequent Driver Rewards Program in 2016 to provide discounts to frequent users. The program also aims to increase transponder penetration and reduce the number of pay-by-plate accounts. MDX consolidated “back office” operations with Florida’s Turnpike and the Tampa Expressway Authority for electronic tag account management (SunPass©) and toll-by-plate billings in June 2018. The program also provides MDX with useful contact information for customers who enroll in the program. (SunPass© customers must enroll separately in the program; they are not automatically enrolled - though re-enrollment is automatic.)

Program Structure

To be eligible to receive a cash reward through the Frequent Driver Rewards Program, MDX customers must:

- Register during the annual open enrollment period (typically January through March),
- Maintain an active SunPass© transponder account in good standing,
- Spend at least \$150 in MDX tolls over the course of the fiscal year, and
- Drive a 2-axle vehicle (MDX has a separate discount for multi-axle vehicles – whereby the rates for multi-axle vehicles is capped at the 3-axle rate for SunPass© transactions).

Rewards

The amount of the reward depends on the business dividends available to MDX at the end of the year, and is distributed proportionately to qualified program members based on the amount each member paid in tolls that year. Most recently, for the 2019 Fiscal Year, MDX provided a 30% dividend reimbursement to enrolled customers who met the minimum threshold of tolls paid during the programed year on MDX’s expressways. Each year, the MDX Board sets the minimum qualifying toll expenditure threshold for the program, based on program participation and qualification rates. The Board has the option at the end of the fiscal year to lower the threshold, making more participants eligible for a cash reward. Now in its fourth year of operation, the MDX Board has lowered the threshold for program eligibility once—from \$250/year to \$150/year.



Figure 6. MDX Expressway Map

<https://www.mdxway.com/about/expressway-map>

Program Costs

MDX budgets the following approximate amounts for the Frequent Driver Rewards Program:

- \$300,000 per year for program operations, which includes personnel and the administrative costs to distribute the cash rewards (i.e., printing, folding, and mailing checks)
- \$6 million per year in toll revenue returned to qualifying customers as rebates

Staff Requirements

MDX has two employees (consultants) who manage the Frequent Driver Rewards Program full-time. Each day they receive a couple hundred emails and about 80 calls from customers, and are responsible for managing the open enrollment period and rewards payout each year.

Program Participation

The Frequent Driver Rewards Program enrolls approximately 260,000 participants annually (this amounts to about one-third of their total customer base). Of these, last year only 22% ultimately qualified for the cash reward. (When the threshold was originally set to \$250 per year, only 14% of participants qualified.) There are several reasons for failing to qualify, including a participant's total annual toll expenditure falling below the minimum requirement or the participant's account not being maintained. MDX has had to clarify to some users that the tolls they pay on Florida Turnpike Enterprise facilities do not qualify for this MDX rewards program.

Marketing

MDX advertises the program with every opportunity they get: on their website, through social media, and with mailers to areas with a large customer base. They also promoted the program through radio and television paid advertising, spending about \$100k-200k on radio ads at the outset of the program. Now that the program is well known in the region, they receive and can count on earned-media exposure, which has helped to keep marketing costs low.

Initially members of the press seemed to expect political controversy about the high cost of tolls; however, since data from the Frequent Driver Rewards Program shows that overall toll costs to users generally fall beneath \$150 per year, now the media coverage tends to focus on the positive stories of reward checks distributed to individual program participants.

Businesses with large fleets or contractors that regularly drive on toll roads for their day-to-day obligations have benefitted from the program. In 2017 MDX hosted a group of business customers to record a promotional video, including a landscaping business with multiple vehicles in its fleet that received \$9,000 in rewards through the program.

Expected Updates

No additional program updates are planned at this time. An extra active-duty military discount was implemented previously, but interest was very low, due in part to a low concentration of active-duty military personnel in Miami-Dade County. The program does not have plans to incorporate a mobile app into its operations.

Lessons Learned

MDX offers the following lessons learned from developing and operating the Frequent Driver Rewards Program:

- **Carefully review your Frequently Asked Questions and Terms and Conditions.** Make sure they have also been reviewed by the legal team. One modification that MDX had to make to the program's Terms and Conditions was defining a clear process for customers who switch to a new transponder mid-year (because of a broken windshield, for example), because the rewards program is transponder-based, not account-based. Now there is language directing these customers to send an email to MDX when they change transponders, so that the two transponders can be linked and the tolls added up so tolls from both transponders contribute to the customer's annual total for program eligibility.
- **Do as much as you can electronically to minimize operational costs.** MDX makes an effort to communicate to the customers that the more support they require over phone or email, the lower the available funds will be at the end of the year for distribution to rewards program participants.

APPENDIX 3: Case Study | NCTCOG HOV Discount Program

Prepared by Dan Cryan, P.E. and Caroline LaFollette, P.E. (K Friese + Associates) based on a call held on January 27, 2020 with Natalie Bettger and Sonya Landrum (NCTCOG) and members of the CTRMA Innovation Team.

Overview

HOV Discount Program

The NCTCOG HOV Discount Program is focused on managed lanes only and does not apply to traditional toll facilities. The program provides a toll discount to vehicles with two or more passengers in the managed lane during the peak period. The program recently converted from using an app involving self-declaration of HOV status to a new app that automatically detects, verifies, and reports HOV status in the vehicle. The new app is from a third-party vendor, Carma, and went live on January 24, 2020. The system is integrated into all managed lanes throughout the North Central Texas region, those operated both by TxDOT and by the private sector. (NCTCOG does not operate any managed lanes directly.) There is a large network of agency partners, including TxDOT, TransCore, and Cintra.

The managed lanes offer a guaranteed speed of 50 mph, so as demand increased, NCTCOG was tasked with finding ways to deal with the congestion and maintain speed requirements. One way to reduce the demand within the managed lanes is to increase toll prices. Another way is to encourage carpooling to get more people through the lane without adding vehicles.

The old process of self-declaration required manual enforcement – meaning, an enforcement officer visually monitored the managed lane for HOV compliances and actively pursued violators. The activity associated with pulling HOV violators over presented two problems. First, it posed a safety risk to the enforcement officers and HOV violators. Second, it hindered free flow of traffic (causing slowing down of other drivers), contrary to the goal of maintaining 50 mph speeds.

The challenge for NCTCOG, then, was to find a way to automatically verify the number of people in the car and eliminate the need for manual enforcement. (NCTCOG's goal is just to apply the correct toll price to the vehicle, not to be in the business of enforcement; furthermore, manual enforcement is a costly expense). After a competitive procurement, they contracted with Carma and conducted a pilot to test the new app and backend system.

Structure

The Carma system provides a 50% toll discount during the peak periods to HOV vehicles (vehicles with two or more passengers). The savings from the discount can be substantial, because managed lane toll rates can exceed \$5 per trip during peak periods, depending on travel conditions. (The NCTCOG peak periods are defined as 6:00-9:00 AM and 3:30-6:30 PM.)

At least one person in vehicle has to have the Carma app on their phone. When the person gets in their vehicle, the phone with the app automatically detects the number of other phones in the vehicle to report the correct HOV status to the system to earn the discount. **One major benefit of the program is that as long as the user who has the app keeps Bluetooth enabled, he/she never has to open the app or interact with it again after setup; detection and rewards occur automatically through the Carma app.** If a passenger does not have a smartphone (for instance, a child), they can request an occupant pass that can also be detected by the phone with the app via Bluetooth.

In addition to the HOV incentive offered through the Carma App, NCTCOG also promotes alternatives to driving alone or in carools, by providing transit and vanpool incentives. Transit vehicles travel in the managed lanes for free, and vanpools can get a 50% discount for their HOV status, and NCTCOG reimburses the remaining 50%, so that they travel for free on managed lanes during the peak period.

Predicted travel times and roadway conditions are not currently provided to users through the app.

Marketing

The previous self-declaration app was active for four years until January 24, 2020, when Carma's new app was launched. With this initial Carma roll-out, the focus has been on migrating existing users of the previous app to Carma. NCTCOG sent email messages to these users to notify them of the change, and the previous app also sent notifications to users that they needed to change to the new system. NCTCOG also posted messages on

dynamic message signs to this effect and did a small press release, but there were not any heavy marketing efforts.

There were 90,000 registered users with the previous app, with about 15,000 unique active users on a monthly basis. Approximately all 15,000 unique active users have transitioned to the new system. NCTCOG plans to make a push for new users in the April 2020 timeframe using methods in the Communications Plan provided, such as social media, digital billboards, search engine optimization, and community publications.

Metrics

It is difficult to tell if the carpool rate has changed with the new system, since some users with the previous system self-declared that they were HOV when they were traveling alone and gamed the system. This new system should provide a more accurate understanding of HOV rates for the region.

There have only been a few occurrences of impacts to the 50 mph guaranteed speed for the managed lanes, because operators increase toll rate based on volumes to try to manage volumes in the lanes. One challenge is that when the toll rate goes up, people are often more apt to get into it because they assume congestion is worse in the general purpose lanes.

System Costs

Carma is charging about \$1 million per year. Other costs include paying TransCore and Cintra to maintain their connections with Carma system. The projected cost for the overall system over ten years is \$20 million.

The Regional Transportation Council set aside \$17 million to pay for the 50% HOV discount over multiple years. They are continually monitoring the balance of this fund and have only used about \$4 million so far (over approximately 4 years). The Policy Board may decide at some point to change the HOV discount requirement from 2 or more passengers to 3 or more passengers to continue funding the program at a sustainable rate. TxDOT absorbs the cost of the discount on their facilities.

Lessons Learned

The primary lesson learned has been that it takes a long time to integrate backend systems. Timelines should be conservative to manage expectations. It is also important to ensure that all users have access to the benefits of the program, including non-smart phone users.

User Feedback

Public feedback regarding the program has been very positive overall. There have been a few concerns with requirement for someone in the car to have a smartphone in order to earn the discounts.

People are excited about the different rewards that are available, and about the fact that with this new vendor, rewards are redeemed immediately rather than once a week. They have received requests for more Starbucks rewards; there is one Starbucks reward through a grant reward partner but none through the app itself.

Try Parking It Program

Try Parking It is a commuter tracking and ride matching website and app provided by Agile Mile (previously WeRide) and managed by the Travel Demand Management arm of NCTCOG. The program helps to manage congestion and improve air quality. It has been expanded over time to add carpool and vanpool ride matching. The program was recently relaunched with new vendor from a competitive solicitation in August 2019. The app is free to users.

Rewards are integrated into the program for every alternative (non-SOV) trip a user takes. There are over 4,000 rewards available, through two different avenues: the Entertainment rewards program through Agile Mile, and G.R.E.E.N. (Give, Receive, Expand, Effect, North Texas) rewards donated from businesses within the region (such as tickets to a Mavericks or Rangers game). The businesses receive recognition on the Try Parking It website. These rewards are made available to users immediately following their alternative trip.

APPENDIX 4: Case Study | NTTA Tollmate Mobile App and TollPerks Rewards Program

Prepared by Dan Cryan, P.E. and Caroline LaFollette, P.E. (K Friese + Associates) based on call held on February 5, 2020 with Randy Evans and Sarah McDaniel (NTTA) and members of the CTRMA Innovation Team.

OVERVIEW

Tollmate Mobile App

The North Texas Tollway Authority (NTTA) operates over 980 toll miles in North Texas. The NTTA system covers four counties, with a higher concentration of lanes in Dallas and Collin Counties than in Denton and Tarrant Counties. TollTag is NTTA's transponder system that bills customers automatically instead of sending a monthly bill at the pay-by-mail rate. Eighty-two percent (82%) of all systemwide transactions occur through TollTag rather than pay-by-mail. ZipCash is the pay-by-mail option for NTTA customers. Most NTTA toll lane rates are adjusted every two years but are otherwise static. The only congestion-based pricing in the region is on TEXpress lanes.

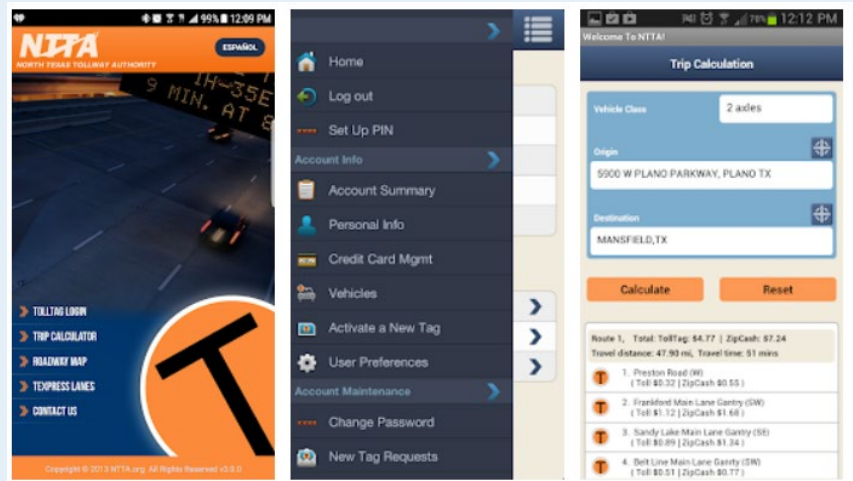
The Tollmate mobile app allows TollTag customers to:

- View their account balance and make payments
- Edit their account information
- Add vehicles to their account
- Calculate the cost of tolls for trips, and view locations and rates of individual toll gantries
- Call for free roadside assistance on all NTTA toll roads
- Contact TollTag Customer Service

The Tollmate app has been a successful tool for transitioning ZipCash customers to the TollTag. ZipCash customers can generally be categorized into two types: infrequent customers, and frequent users who consistently use the toll roads but have various reasons for not owning a TollTag. Some frequent users, who previously avoided using a TollTag because of the automatic re-bill feature (the lowest increment for automatic re-bill is \$20, which can be a burden to some TollTag users), have migrated to using TollTags due to the ease of managing their TollTag accounts through the Tollmate app. Tollmate app users can easily use their smartphones to check their TollTag balance and calculate the cost of their trip as they walk to their cars, leading to a lower risk of an unexpected automatic re-bill that might overdraw their account. Users are also able to add smaller increments to their TollTag balance with Tollmate than with automatic re-bill.

Because the Tollmate app is available to TollTag and ZipCash customers, a few Tollmate links are located on the app home screen outside of the login page. The app is also available in Spanish.

Figure 7: NTTA Tollmate App Screenshots – Set 1



The Tollmate app does not provide travel times, but it does contain a link to Waze, with which a user can leave the Tollmate app and use Waze for route and travel time information. NTTA did pursue integration with Waze at one point, but Waze was in the middle of a merger at the time that precluded full integration. Dynamic message signs along the roadway provide travel time estimates, which are calculated from real-time transponder data.

Background

Development of the Tollmate mobile app originated with a focus group study conducted by the NTTA. Through the study, NTTA staff became aware of a need for easier account maintenance for customers who wanted a TollTag but were hesitant due to the automatic re-bill feature. The existing NTTA TollTag website is not mobile-friendly, and these customers were looking for an easier way to monitor and manage their TollTag accounts.

Prior to development of the Tollmate app, a privately developed mobile app existed that calculated tolls for trips around the region. This app had limitations because it was not integrated with the system or endorsed by NTTA, but did replicate NTTA branding. To prevent confusion and other issues, NTTA’s legal team asked the app developers to discontinue the app. Later on, NTTA hired these same developers through a competitive procurement to develop the Tollmate mobile app.

Expected Updates

Tollmate is currently managed by a third-party vendor, but after NTTA rolls out its new back office system in June or July 2020, it will be managed in-house. The IT staff person who is currently the point of contact for the app will manage ongoing maintenance, which will likely only involve 2-3 projects per year. NTTA does not anticipate needing additional staff to maintain the app in the near future.

NTTA has not pursued interoperability for Tollmate with other transponders besides TollTag, like TxTag or EZTag. This would require data sharing between agencies, and furthermore may not align with the general understanding between toll agencies in different parts of the state not to interfere with one another’s operations.

App Usage

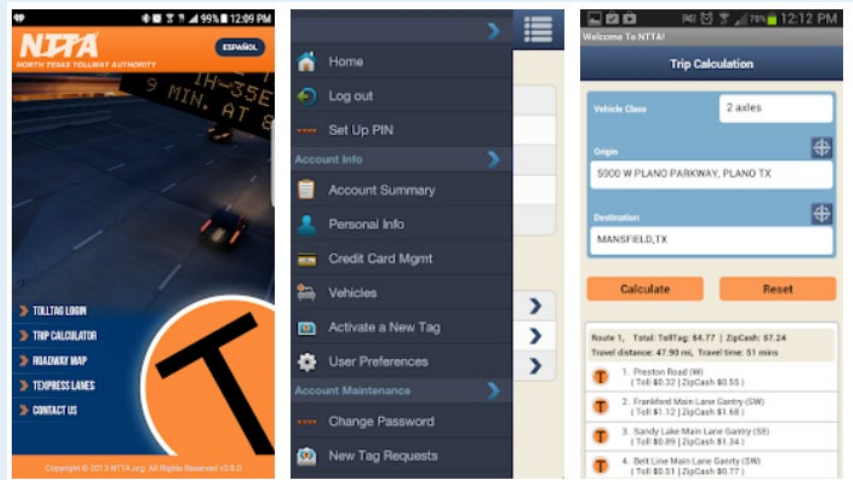
NTTA tracks downloads per month for Android and iPhone. In 2018 there were approximately 14,000 downloads per month, and in 2019 this number increased to 18,000 downloads per month. There have been 1.1 million total downloads. NTTA staff can monitor usage with a dashboard showing customer information, the most popular pages, the number of logins, etc.

Marketing

NTTA has a sophisticated marketing strategy that is in effect year-round. NTTA uses the following methods to promote the TollTag and the Tollmate app:

- Promotions on NTTA’s website
- Google search ads
- Billboards
- Radio
- Gas toppers in select neighborhoods
- Streaming ads
- Promotions through the TollPerks rewards program

Figure 8: NTTA Tollmate App Screenshots – Set 2



While it's difficult to quantify the effectiveness of these different strategies, NTTA would guess that the Google ads or other digital methods are most successful for promotion of the Tollmate app specifically. NTTA considers the income level of different geographic areas to determine the best messaging for billboards or for geotargeted digital ads. People in lower income areas are generally more concerned with account management and see more ads for Tollmate emphasizing ease of adding funds to account, while people in more affluent areas may see higher auto re-bill options recommended and typically already use the toll lanes.

Lessons Learned

From the competitive procurement process, NTTA learned that it is valuable to figure out the vision for app capabilities at launch, as well as for years 2, 3, and 4. Outlining these expectations helps developers to provide more accurate proposals, and it also benefits the internal agency team to be on the same page about priorities from the outset rather than disagreeing about them later on.

For successful integration with back office operations, NTTA recommends consulting the back office provider prior to scope development to get feedback about the expected level of effort to integrate the app. This way, it is clear to the developer that wins the bid what it will cost on their side. Otherwise, the proposal is based on assumptions about integration efforts. It is also good to keep in mind that the integration effort for app upgrades can be significant.

TollPerks Rewards Program

TollPerks is NTTA's rewards program in which customers earn rewards for using the toll facilities. For every dollar spent on NTTA tolls, customers accrue 100 TollPerks points. A third-party vendor, Online Rewards, uses backend data from the TollTag transponders to calculate and distribute the rewards earned by each TollPerks participant.

Due to privacy concerns expressed by customers, the app does not track users' personal locations to promote location-specific rewards (e.g., a gift card to a nearby Starbucks). NTTA does not share or sell data externally, nor is the data ever stored long-term. The Tollmate app uses push notifications to promote TollPerks rewards and encourage enrollment into the program.

Program Costs

Funding for the TollPerks program comes from the budget for public affairs and marketing. Funding for the Tollmate app comes from the IT budget.

Customer Feedback

To solicit customer feedback, NTTA conducts focus groups at least once per year, and distributes an extensive survey every two years. Feedback from new users is a priority for these outreach efforts, since the toll system is always expanding into new areas.

General user feedback on Tollmate and TollPerks has been positive. The TollPerks rewards program has about 430,000 members. There has been a desire for more rewards to be offered in Tarrant and Denton Counties. NTTA also received numerous emails asking if the rewards program was a scam, because people did not expect a toll agency to distribute prizes.

Findings from the surveys and focus groups include:

- Customers notice and appreciate the link to call roadside assistance. Many do not notice the #999 number advertised on the back of their TollTag, and clicking the link on their app is quicker than dialing the number anyway.
- Outreach has also revealed that more ZipCash customers use the app than expected. The customers tend to be more frugal, so before they get on the road they look at the app and use the trip calculator to figure out where they should exit the tolled lanes and ride the service roads to minimize the cost of their trip.
- NTTA used the survey to test customer receptivity to push notifications from the Tollmate app. Customers were open to receiving these, so NTTA rolled them out.

APPENDIX 5: Case Study | SRTA Commuter Credits Rewards Program

Prepared by Dan Cryan, P.E. and Caroline LaFollette, P.E. (K Friese + Associates) based on a call held on January 7, 2020 with Jamie Fischer, Kim Kemp, and Sanjay Senthilkumar (SRTA) and members of the CTRMA Innovation Team.

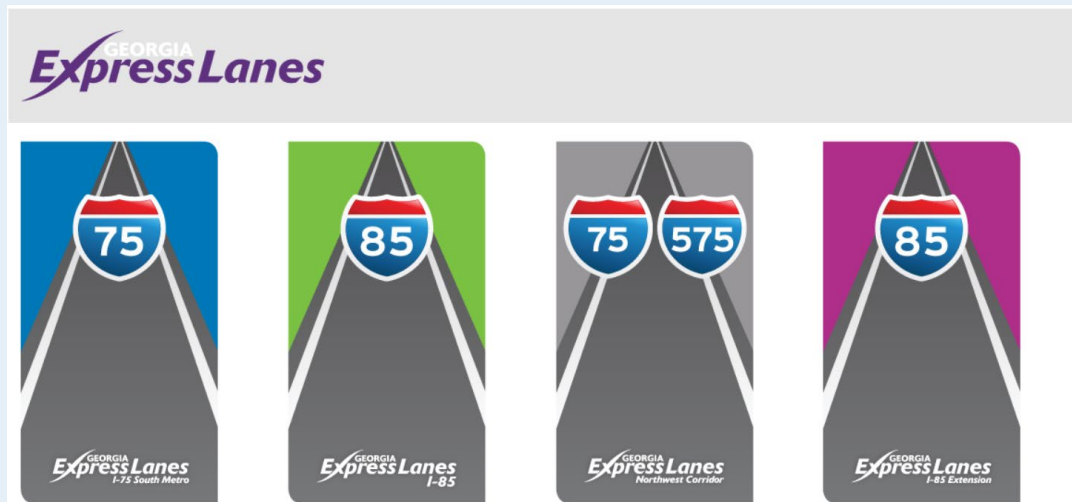
Background Information

Agency Overview

According to the agency's website, "The State Road and Tollway Authority (SRTA) is a state-level, independent Authority created by the Georgia General Assembly to operate tolled transportation facilities within Georgia and act as the transportation financing arm for the State. SRTA manages the collection of tolls on Georgia's Express Lanes System through the use of Peach Pass, the state's all-electronic tolling technology."

Figure 9: Summary Graphic of SRTA Express Lane Toll Facilities

(<https://www.srta.ga.gov/georgia-express-lanes/>)



Program Context & Motivation

With an interest in establishing a customer rewards program, SRTA conducted a Commuter Credits pilot program over two phases. Phase I was implemented in 2015 and the program had three subcomponents with distinct purposes: (1) Shift Commute (purpose: incentivize customers to shift their commute times outside of peak hours), (2) Carpooling, and (3) Ride Transit. Based on the outcomes of the Phase I, the carpooling subcomponent was discontinued and a few modifications were made to the remaining two (Shift commute and Ride Transit).

At the time of the Phase 1 pilot programs, SRTA only operated one HOT lane on I-85. Now SRTA operates toll lanes on four different facilities, with dynamic pricing on all facilities. While I-85 HOT lanes consist of only one lane in each direction, other facilities have 1-2 reversible lanes.

SRTA facilities are interoperable with other East Coast toll tags, but only PeachPass users were eligible for these rewards programs. Only personal PeachPass accounts are eligible, not corporate ones. PeachPass users can use a mobile app to access their account and move funds, but not in lieu of a transponder. SRTA lanes require transponder use. Using the lanes without a transponder results in a fine in addition to the toll amount. There is a pay-as-you-go preloaded card option, but not a pay-by-mail option.

The original motivation for the Rewards Program was to improve speed performance on SRTA roadways with a focus on person throughput and travel time reliability. The goal was to reduce the number of single occupancy vehicle (SOV) travelers in the HOT lanes during the peak hour to increase people throughput and improve peak hour speed performance in the lane.

Program Structure

For both phases of the program, rewards were paid out to users monthly for each of the rewards program.

Program Partners

SRTA came up with the model for the program independently but did collaborate with Georgia Commute Options, a regional rewards program that incentivizes any alternative commutes that aren't SOV.

Phase 1 Pilot Program Components

Shift Commute

MESSAGE	Get out of your car during the peak hour
LOCATION	I-85 HOT lanes
DURATION	3 months
PARTICIPATION	120+ participants
USER GROUP	They experimented with different thresholds to cast a wider net for eligibility to increase participation. They ultimately decided to invite people who used the toll lanes (at any time during the AM and PM peak periods, not just the AM peak hour) more than 20 times per month. This time participation tripled, with over 120 participants in Phase 2.
METRICS	Increased participation from Phase 1
INCENTIVES	To increase participation, SRTA wanted to make the incentives more attractive. For each fewer trip compared to usual monthly average (a 3-month baseline) users could earn a \$4 credit per trip. For example, if their baseline was 22 toll trips per month and they reduced usage to 18 times per month, they would earn \$16 dollars for that month.

Carpooling

MESSAGE	Instead of paying the toll, pay transit fare
LOCATION	The program was expanded from just I-85 to all SRTA express lanes across the region.
USER GROUP	As with Phase 1, the Phase 2 Ride Transit program was publicly available to anyone who wanted to register. Anyone could register, and then they had to go through a SRTA eligibility screening that
INCENTIVES	The Phase 2 program tracked both toll ID and transit card. Users could earn credit if they used transit on a given day <i>and</i> did not use a toll lane that day. SRTA increased the incentive from \$2 per transit trip to \$5 per day during peak period as long as not seen in express lanes during the same period. Reward was per day rather than per trip to prevent double counting the rewards.

Ride Transit

MESSAGE	Instead of paying the toll, pay transit fare
LOCATION	I-85 HOT lanes (8 transit routes) There were 8 original transit routes that could be used to earn credit for the Phase 1 pilot program. Now there are 20 transit routes that can be used.
DURATION	6 months
PARTICIPATION	261 signed up and 210 earned credits
USER GROUP	RideTransit was publicly available to anyone who wanted to register. Anyone could register, and then they had to go through a SRTA eligibility screening.
METRICS	The primary goal was to increase transit usage by participants.
DESCRIPTION	The program looked at how often people were using their transponders and transit as a baseline, then compared that what they did during the program. Participants only got credits for changing behavior. Credits were earned when they took transit during the peak period more than they did before.

Phase 2 Pilot Program Components

Shift Commute

MESSAGE	Get out of your car during the peak hour
LOCATION	I-85 HOT lanes
DURATION	3 months
PARTICIPATION	120+ participants
USER GROUP	They experimented with different thresholds to cast a wider net for eligibility to increase participation. They ultimately decided to invite people who used the toll lanes (at any time during the AM and PM peak periods, not just the AM peak hour) more than 20 times per month. This time participation tripled, with over 120 participants in Phase 2.
METRICS	Increased participation from Phase 1
INCENTIVES	To increase participation, SRTA wanted to make the incentives more attractive. For each fewer trip compared to usual monthly average (a 3-month baseline) users could earn a \$4 credit per trip. For example, if their baseline was 22 toll trips per month and they reduced usage to 18 times per month, they would earn \$16 dollars for that month.

Carpooling

The carpooling program was discontinued in Phase 2 due to low participation in Phase 1.

Ride Transit

MESSAGE	Instead of paying the toll, pay transit fare
LOCATION	The program was expanded from just I-85 to all SRTA express lanes across the region.
USER GROUP	As with Phase 1, the Phase 2 Ride Transit program was publicly available to anyone who wanted to register. Anyone could register, and then they had to go through a SRTA eligibility screening that
INCENTIVES	The Phase 2 program tracked both toll ID and transit card. Users could earn credit if they used transit on a given day <i>and</i> did not use a toll lane that day. SRTA increased the incentive from \$2 per transit trip to \$5 per day during peak period as long as not seen in express lanes during the same period. Reward was per day rather than per trip to prevent double counting the rewards.

Lessons Learned

Marketing

- SRTA's marketing efforts for the first pilot included email blasts to PeachPass users, a program web page, digital outdoor media and online radio ads. They will seek to tailor this in the future to focus on measures that appeared to be the most cost effective. Email blasts to PeachPass users were the most cost effective.
- SRTA used MailChimp for email blasts. It seemed to help to have matching branding on the website and in email blasts for the program, so that people didn't think the email was a scam.
- The marketing team helped support both the initial outreach and answering clarification questions from users. There was some interest from the press, and a few questions from the public came in after some news coverage, but not as much as hoped.
- SRTA does not have any demographic data about program participants but may ask about program usage in a future PeachPass user survey. It would be helpful to have more user data to target marketing towards users who are most susceptible to change based on research (e.g., people who work from home).

User Interface

- A goal for next year is to make the registration web portal simpler and easier to use (especially for Ride Transit), with enough information to get people interested without being too complicated with barriers to signing up. For example, sometimes SRTA had to reach back out to encourage people to finish registration because they needed to provide PeachPass ID and regional transit smart card information to register.

Data Integration

- SRTA is assessing how to evaluate train usage to incorporate into Ride Transit tracking. There are data hurdles because they don't own all regional transit data.
- In general SRTA is working as an agency to consolidate their data environment and standardize tools and processes. They would ultimately like to automate more of the calculations that feed the rewards program analysis processes.
- The rewards programs have generally required new processes more than new tools or technologies, but Alterix and SQL have been useful tools for blending transit and toll data. Tableau is helpful for data visualization.

Temporal Program

- The benefits of a temporal program offered at set times instead of a year-round program are that it gives SRTA the chance to evaluate the program and make incremental improvements, and marketing can focus on annual promotion efforts. Since the program is structured around incentivizing changes in travel behavior, it has to be temporal to give SRTA the opportunity to set a new baseline for users who continue to enroll in the program.

Program Evaluation

- SRTA would like to evaluate the effectiveness of the program in terms of whether travel behaviors are sustained after the incentives end.

Program Expenses

- The credits have cost SRTA less than \$10k so far. This is the primary cost driver. SRTA is hoping to increase the amount of credits they give in the future.
- Back office support from the toll system integrator has also cost less than \$10k.
- The most expensive component was the marketing contract.

Metrics

- Other metrics SRTA has considered include:
 - Number of program participants
 - Number of trips diverted during peak period during program
 - Number of toll trips per participant per month (for Ride Transit, this would be compared with the number of transit trips)
 - Number of toll trips per participant per month in peak hour (want to reduce)
- SRTA is starting to come up with what a target might be for speed performance impacts (the original motivator for the program).

SOURCES

¹ *Why Customer Experience Is Key for Loyalty Programs*, McKinsey (<https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/why-customer-experience-is-key-for-loyalty-programs>)

² *Behavioral Economics and Transportation: Exploratory Advanced Research*, FHWA (<https://www.fhwa.dot.gov/publications/research/ear/15035/15035.pdf>)

³ *Using Focused Incentives to Change Commuter Behavior*, CommuteCon 2020 (<https://commutecon.com/commutecon-2020/doug-palmer>)

⁴ *Federal Research: Shifting Behavior and Increasing Vehicle Occupancy through Mobile Apps and Incentives* (<https://www.actweb.org/i4a/pages/index.cfm?pageid=3500>)

⁵ *Expanding Traveler Choices through the Use of Incentives: A Compendium of Examples*, FHWA (<https://ops.fhwa.dot.gov/publications/fhwahop18071/index.htm#toc>)

⁶ *Mapping Incentives to Change*, Rocky Mountain Institute (<https://rmi.org/insight/mapping-incentives-to-change/>)

⁷ Commute.org Carpool Rewards Program webpage (<https://commute.org/get-rewarded/apply-for-carpool-incentives>)

⁸ MDX Frequent Driver Rewards Program webpage (<https://www.mdxway.com/frequentdriver/landing>)

⁹ NCTCOG GoCarma webpage (<https://www.nctcog.org/trans/manage/tdm/gocarma#:~:text=The%20Regional%20Transportation%20Council%20established,US%2075%20until%20construction%20begins.>)

¹⁰ NTTA TollPerks webpage (<https://tollperks.com/>)

¹¹ PeachPass Shift Commute webpage (<https://www.peachpass.com/shiftcommute/>)

¹² Movability webpage (<https://movabilitytx.org/>)