



WMATA

Research Study: Evaluating WMATA's payment system

Prepared by: Sean Cassidy
Kent UXD - 8/10/19

Table of Contents

Table of Contents	1
Executive summary	2
Main takeaways	2
Top recommendations	3
Background	3
Problem statement	4
Research Overview	4
Research question	4
Research Methods	4
User interviews	5
Competitive analysis	5
Recruitment	5
How we screened users	6
About the users	6
Data Analysis	6
User interviews: Data collection	6
User interviews: Data analysis	6
Competitive analysis: Data collection	7
Competitive analysis: Data analysis	8
Findings: Positives	8
Findings: Areas of improvement	9
How other transit systems compare	10
How users describe the ideal payment method	13
Recommendations	13
Near term	13
Long term	13
Additional research studies	14
References	15
Appendix	16
Recruitment screener	16
Interview Guide	17
Competitive analysis comparison chart	19

Executive summary

WMATA, the transit agency that manages and operates metro rail and bus service in the Washington, DC metro area, **can greatly increase its user experience of its payment system by improving the technology and flexibility of its service.**

Through our user research study, we learned that WMATA's users were often very satisfied with the metro system overall. However, they felt there are several areas of improvement. Users want more flexible payment options; the ability to pay with your phone, manage your account more easily, have the ability to use one SmarTrip card for more than one person, and want clearer instructions for tourists and new residents. There are also a few things that even life-long riders of metro did not understand -- what the different beeps mean when boarding a bus, or that you can reload your SmarTrip card at retail stores across the D.C. area.

While the D.C. metro was one of the first systems to offer a card to pay for service, other transit systems have caught up and surpassed D.C.'s technology and offerings. Chicago's transit agency offers a more flexible payment system. It allows riders to pay with credit card directly at faregates, Apple or Google Pay, as well as paper tickets and cards like the D.C.'s metro. WMATA has the potential to create a more seamless and efficient user experience across its payment service.

This report outlines the findings and recommendations from our central question: **What improvements should WMATA adopt for its customer payment system?**

Our research was guided by our three main goals:

- Identify customer behaviors and usage patterns in relation to the SmarTrip payment system
- Evaluate how well the current payment system is matching user needs and goals
- Discover new ideas and customer insights that will help WMATA improve the user experience of the payment system as a whole

Our main research methods were:

- Conducting three user interviews with WMATA users
- Performing a competitive analysis of Boston, Chicago, and San Francisco' transit agencies payment systems

Main takeaways

- Overall, **users mentioned how pleased and satisfied they were** with the metro and bus system, as well as the SmarTrip card to pay for service.
 - *"It's been positive -- it's useful, the card has never broken and I've never had a card that didn't work" - participant 2*
- There a number of common things **users are often confused** about with the payment features and functionality
 - Users don't understand the bus payment beeps when boarding, were unaware of the option to reload SmarTrip cards at retail stores and on most buses

- The time it takes for value to be **active on a card after it's added online frustrates users**, they don't understand why it's different than adding value at stations.
- Chicago, Boston, and San Francisco's transit systems are **generally more flexible**, giving users more options to pay for fares as well as mobile apps to help manage user accounts.

Top recommendations

- Seek out technology upgrades that emphasize improved user experiences. Investigate mobile app payment, mobile apps in general, as well as improving the experience going in or out of the faregates.
- Improve information and instructions at metro stations to help orient users to the SmarTrip payment program
- Investigate feasibility to allow multiple riders per card which would help tourists reduce the upstart cost to ride the system
- Consider running advertising campaigns focused on common misunderstandings; what the beeps mean when boarding a bus, the option to add value on a bus, as well as the option to add value to SmarTrip cards at retail stores across the D.C. area
- Evaluate station kiosks by conducting usability sessions or direct field observations
- Discover how well the online account system works for users by conducting usability testing

Background

The Washington Area Metropolitan Transit Authority (WMATA) is the transit agency that manages and operates metro rail and bus service in the Washington, D.C. metro area. The agency collectively moves nearly 1 million people a day throughout the District of Columbia, Maryland, and Virginia. Since 1999, the transit agency has offered a contactless, stored-value SmarTrip card for bus and metro payment, similar to the size of a credit card.

SmarTrip cards are reloadable and manageable through an online account portal. The technology and adoption of the payment system has expanded, but nothing much has changed in terms of refinements to the program or increased flexibility since its inception. WMATA does not currently offer a mobile app or mobile payment. The technology running the SmarTrip cards is becoming increasingly outdated, and WMATA has announced that the whole technology will need to be upgraded at a future time.



The D.C. metro system has offered a contactless card, similar to a credit card, to pay for service since 1999.

Problem statement

WMATA wants a payment system that is intuitive, effortless, flexible and one that works for both recurring riders as well as new ones.

The issue today is that not much has been upgraded or improved over the last decade. The technology, while new at the time, is slowly becoming outdated and the payment system and related processes could fall behind other transportation agencies. With poor user experience, WMATA risks losing users to other more effortless and seamless modes of transportation, like Uber, Lyft, Bikeshare, and others.

WMATA's vision is to design a future payment system that meets customers' needs and goals. In addition to understanding what tenets to adopt into an upgraded payment system, WMATA is interested in understanding what can it do in the short term to help users more quickly, and improve the user experience of the existing system. Research will help to understand and gain insights into these two areas.

Research Overview

Research question

For the purposes of this study, our major research question was: **what improvements should WMATA adopt for its customer payment system?**

Our specific research questions:

- What are customers' experiences with the SmartTrip payment system overall?
- How do customers currently manage their SmartTrip accounts?
- What specific features or functions work well? Why?
- What specific features or functions don't work well? Why?
- What other transportation payment services have customers used before and what have been their experiences with them?
- What do customers value in regards to a future payment system?

Our research goals:

- Identify customer behaviors and usage patterns in relation to the SmartTrip payment system
- Evaluate how well the current payment system is matching user needs and goals
- Discover new ideas and customer insights that will help WMATA improve the user experience of the payment system as a whole

Research Methods

For this study, we conducted user interviews with target users as well as performed a competitive analysis of three major transportation agencies payment processes.

User interviews

User interviews help to learn about user attitudes, behaviors, and usage patterns relating to a website, product, or service. Individual interviews probe users' experiences to get a deeper understanding of how they use a particular service (Usability.gov, 2013). For this study, user interviews helped to uncover general experiences with the WMATA payment system.

- UX interviews were held with three participants
- Sessions lasted between 30 minutes to 1 hour and conducted in person.
- Interviews were guided by a semi-structured interview guide (*see Appendix*)

Competitive analysis

A competitive analysis is a detailed and systematic review of existing products or services provided by another company or organization. For this study, a competitive analysis helped us understand other transportation systems' payment services and products. A competitive analysis gives you a competitive edge by identifying opportunities, gaps in other services, and potential design patterns to adopt or avoid (18F, 2019).

- We analyzed Boston, Chicago and San Francisco's transportation systems
- We intentionally focused on transit systems of similar size, as this is a good indicator of similar governing structures, staff, budget, and overall system reach.
- Using a data collection spreadsheet, we identified particular aspects of their payment systems (*see Appendix*)

Recruitment

User interviews included recruiting both regular and infrequent metro riders. The purpose of two audience profiles was to get more broad feedback from users, as the system needs to be usable and accessible for both types. For this study, due to the limited timeframe, we were only about to conduct three interviews -- two with regular metro riders and one with an infrequent rider.

User Type 1: Regular metro rider

- Age: 18+
- Gender: Male, Female
- Lives in the Washington, D.C. area

Behaviors

- Commutes on metrorail (subway) or bus service regularly (at least a few times a week)
- Uses SmartTrip benefits or auto-reload
- Has used a metro station kiosk to add value to a SmartTrip card

User Type 2: Infrequent rider

- Age: 18+
- Gender: Male, Female
- May live in the Washington, D.C. area

Behaviors

- Has ridden metro (subway) or bus at least once before
- Has used a SmartTrip card to purchase metro/bus fare
- May use online account to manage SmartTrip card

How we screened users

We created a 12-question screener to run potential participants through to determine eligibility for the study. The screener helped give contextual background information about users. (See *Appendix for screener*)

About the users

- Two users rode metro daily; the third user rides bus occasionally to work and metro on the weekends
- One user actively uses the online account to manage their card; the other two have automatic value added to their cards each month as part of a work subsidy program
- All users:
 - Live and work in the Washington, D.C. area
 - Have a SmarTrip card and use it to pay for metro/bus service
 - Have used the station kiosks to add value to a SmarTrip card

Data Analysis

We were most interested in gathering qualitative data in this study. Our two research methods were chosen because they helped guide this exploratory research and gave the most insights in the shortest time frame. We followed a systematic approach to our data analysis which lead to valuable insights and findings.

User interviews: Data collection

During interviews, information collected focused on gathering qualitative data among these four broad categories.

- Customer experiences with the SmartTrip payment system overall
 - *These are behavioral descriptions of how a user interacts and uses the payment system as well as their opinions about the system.*
- Methods customers use to currently manage their SmartTrip accounts
 - *On a more specific note, we are looking to collect data on how many users use the web-based account, and what their overall experiences have been with it. What works well, what doesn't?*
- Customer experiences with other city transportation systems
 - *Have users traveled elsewhere where they've used a transit system? What was their experiences using other systems?*
- Customer opinions for a future payment system
 - *What's important to customers? What things should WMATA consider when upgrading technology?*

User interviews: Data analysis

Each interview was summarized with key points and quotes. This helped consolidate all the

information together, based on questions from the interview guide. Part of this work included listening back to interviews to make sure quotes were represented accurately and nothing was missed while taking notes.

Using post-it notes, wrote out nearly 50 insights down with the intention of coding the data. To do this, I conducted an affinity diagramming activity, using a large wall as a canvas to code the data.

From there, I started to identify the larger categories the data fit into and what patterns existed within the categories. I then developed statements from patterns I observed in the data, identified supporting quotes and refined language of each finding and description.



Affinity mapping and coding insights from user interviews.

Competitive analysis: Data collection

Data collected from the competitive analysis focused on aspects of other transit system's payment processes and overall features, functionality, and aesthetics.

- Overall summary of payment service
 - *How does their payment system work? A detailed summary of process (cards, kiosks, online accounts, tokens, etc.)*

- Pricing model for subway/bus service
 - Part of improving the payment system may involve looking at pricing models
- Customer service
 - How do the three organizations deal with customer service? A large portion of customer experience can involve how customers' inquiries are dealt with.
- Design
 - Overall aesthetic and branding, website, apps, and account portals

Competitive analysis: Data analysis

For the competitive analysis, I created a data collection spreadsheet with a number of different attributes to collect (description of payment system, does the service offer an app, etc.). After researching the different transit agencies, I collected the information I learned into the appropriate categories on my data collection spreadsheet. From there, I looked for patterns among the categories and drafted initial findings based on an analysis of the data.

Data collection instruments			
Competitive analysis comparison chart			
	Chicago's L	Boston's T	San Francisco BART
Brief summary	Cost of card (\$5) becomes value added on the card once you register the card	CharlieTicket, a paper ticket that can be loaded with subway, bus, Commuter Rail, and ferry tickets or passes	Clipper card, paper clipper ticket
Payment system	Ventura card, contactless paper tickets, contactless bankcard, Apple Pay and Google Pay, Samsung Pay, Fitbit Pay	mTicket, an Android and iPhone app for Commuter Rail and ferry tickets or passes Option for autoreload	-\$3 nonrefundable charge for the card Option for autoreload -Balance protection if card is registered (ability to get value from card) Ability to add value at retail locations
Description of payment system	Ability to add value at retailers; ability to pay for other people in your group (up to 6) simply pass the card back (even allows for people to start at different locations and Ventura figures it out); instant app loading balances and clear features	Cash at onboard fare boxes on buses and trolleys at street-level stops Can't use the Charlie card to pay for regional rail; only passes loaded on a CharlieCard	-50 cent increase for paper tickets (incentives for plastic card) -Pilot testing mobile app payment with app (SFO airport line) -Similar system with entry/exit fare and you must add fare if in the station if you don't have enough to exit
Future offerings (if applicable)	New card version has become available so Ventura is having to upgrade people's card that originally got one back in 2013. They are doing this rather seamlessly by mailing a card and keeping all balances	-mTicket app has ability to manage account and purchase regional rail tickets	-Have an app but doesn't have ability to manage account or fares; only real feature is trip planning and advisories
Online account/app offerings	Mobile app, online account, phone or in-person kiosks	-Visitor guide on their website for tourists -Cheaper fare for non-paper fares -Cards do expire after a few years -Processing delay after adding new value online -mTickets can be purchased and used for multiple	-Ability to link Clipper account for the city's bikeshare service -Each person needs to have their own Clipper card -Adding value online to Clipper may take up to 1 to 2 days to register
Customer reviews	Ventura website is clear, concise and focused on helping consumers. Very well done -Turntimes are very clear when the card was accepted -Ability to buy train tickets for regional rail on the app -Ability to use cash to add value at nearly 1300 stores		

Comparing core offerings and processes from the next largest three transportation systems in the U.S.

Findings: Positives

1. Overall, **users mentioned how pleased and satisfied they were** with the metro and bus system, as well as the SmarTrip card program.

- All three users described being satisfied with the metro system and while far from perfect, appreciated the contactless payment system, the auto-reload feature, and how many different stations, lines and buses operate in the D.C. area.

"It's been positive -- It's useful, the card has never broken and I've never had a card that didn't work" - participant 2

"Overall positive ... it's positive for me because I have the transit subsidy. Definitely better than other systems that you have to put in a coin" - participant 3

'Overall Positive'

All three users described WMATA offering a positive experience and said paying for trips with a SmarTrip card has been easy

- Participants noted how seamless the auto-reload feature is
- Said the system feels updated; like how you don't have to pay with coins like other cities

2. SmarTrip auto reload is **a useful feature** and two out of three interviewees were very satisfied with how it works; although said it was somewhat difficult to set up.

- Users can only set up auto reload through an online account (automatically adds value when the card balance drops below \$10).
- Registering a card requires users to type in a card's long serial number and users must change payment methods if their credit card changes
- WMATA email notifications were appreciated and useful, according to one user

Findings: Areas of improvement

3. There a number of common things **users are often confused about** with the metro and bus payment system

- Boarding a bus has distinct beeps to let users know if the card reads successfully, if the card is low on balance, or if the card is out of balance. Two out of three users described not understanding what the different beeps represent.
- All users were unaware of the option to reload SmarTrip cards on a bus
- All those interviewed were surprised to learn you can reload your SmarTrip card at retail stores across the Washington, D.C. area. There are more than 400 retail stores (Walgreens, CVS, Giant) that offer that service as the register.

4. The time it takes for value to be **active on a card after it's added online frustrates users**; users don't understand why it's different than adding value at stations.

- This issue most likely stems from a technical limitation. Other transit services such as Chicago and Boston allow credit to be active right away.

"Time durations are weird ... why do you have to wait so long to ride after loading money to actually ride?" - participant 1

5. All three transportation systems (Chicago, Boston, and San Francisco) are **generally more flexible**, allowing users more options to pay for fares as well as apps to help manage user accounts.

- All three offer a mobile app; Boston and Chicago's apps allow users to manage their accounts and add value to their cards
- All systems offer a reusable card like the SmarTrip card
- San Francisco and Chicago's card is used for more than just paying for fare; they are better integrated with other city services like bikeshare and ferries

Things not well known

All participants talked about things not well known or understood with the metro and bus system

- What the different bus beeps after paying mean
- Option to load value on card on the bus
- Ability to reload fare at retail stores across the area

All 3 transit

Systems researched (Chicago, San Francisco, and Boston) offer an app while WMATA doesn't. WMATA users expressed interest in one.

Common features include:

- Ability to add fare to your card
- See transit delays or advisories
- Cost estimator

How other transit systems compare

What does Chicago, Boston, and San Francisco’s transit systems have to offer?

Boston	Chicago	San Francisco
<ul style="list-style-type: none"> • Contactless card similar to WMATA but can be used by multiple people during the same trip • Card can be loaded with regional rail passes and ferry tickets • mTicket app allows users to manage their account as well as buy regional rail single use passes • Visitor guide section on its website offers clear instructions for tourists • Cards expire after a few years 	<ul style="list-style-type: none"> • Most flexible payment methods of any of all three; able to pay with contactless card, contactless credit card, mobile pay, and paper tickets • Option to regain cost of card once you register it online (\$5) • Clear and concise website offers tourists and residents instructions and resources • Adding value online or through app is immediately available on your card 	<ul style="list-style-type: none"> • Most similar to WMATA, with contactless card (one per rider) and option for paper ticket • \$3 nonrefundable fee to buy card (WMATA’s is \$2) • Offers balance protection if you lose card or its stolen, as long as it’s registered • Currently pilot testing mobile app payment on one line • Offers an app for maps, service information, advisories but lacks features to manage account/add value • Adding fare online takes 1 to 2 days to process • Integrated transit card with bikeshare system

6. Users feel the system **works well for those that understand it**, but can be confusing for tourists and new residents.

“Payment system is not that complicated it’s just [tourists] don’t know what they are doing” - participant 2

7. Everyone spoken with **expressed interest in a WMATA mobile app**, specifically mentioning features that allow them to add value, be notified of delays and closures, as well as have a trip cost estimator to know how much it costs to go from station to station

- Users often commented that there is no easy way to figure out the price of a trip

8. Users noted that a few interactions using the **SmarTrip card are often difficult** to learn -- tapping twice at the station kiosks when adding value and knowing if you successfully tapped in or out of the station when following someone close behind.

- Two users noted that at least once a month they inadvertently follow someone else through the exit faregates, which requires them to fix their card with the station manager.

“[Often] I’m in a rush so I’m going to just follow someone out and deal with it in the future.” - participant 1



Users noted that sometimes they may accidentally follow someone else through the gates. When this happens, users must take their card to the station manager to have it reset.
Credit: WMATA.com

9. Users **were dissatisfied that exit fare machines** only accept cash.

- Metro doesn’t allow users to exit with a negative balance on a card so they have to add value inside the station faregates at exit fare machines.

“Charge when you exit is weird -- it shouldn’t let you in if you can’t pay for a minimum trip.” - participant 1

10. Two users **expressed interest in more flexible rules** with SmarTrip cards; specifically being able to use one card for multiple people.

- This may reduce the burden on tourists coming to visit as well as helping users who forget their cards



Both Chicago’s Ventra card as well as Boston’s CharlieCard allow riders to “pass back” their cards to pay for multiple people on the subway and bus systems. Credit: ventrachicago.com, charliecard.mbta.com

11. Users end up **collecting more than a few SmarTrips cards** and have difficulty managing them; there is not an easy way to consolidate cards online.

- Forgetting your SmarTrip card at a station means you have to buy another one which costs \$2; there is no way to pay for the trip using just your account or other method (phone, credit card, cash)

“[If I forget my card]I’m not going to leave and go back; I’m going to buy another card” - participant 1

- There is no easy way to distinguish between cards beyond the lengthy serial number.



*The current WMATA SmarTrip card front and back.
The serial number at the bottom is the only way to differentiate between cards.*

12. The online account **has limited historical data** and WMATA doesn't offer any “fun” campaigns or promotions

- One users in particular wanted to know more about their trip history, to identify patterns and see how much money they were spending. The current site only shows data for 30 days.
- Another user noted that WMATA doesn't run any promotional campaigns or programs that encourage users to ride more. They suggested metro look into offerings like “if register your SmarTrip card, you get the \$2 back” or a point system for how many times you ride that you can redeem for extra trips or other incentives.

Time Period

If you want to view your card usage history report please specify either the month or start and end dates you wish to review. Usage history is only available on-line starting Saturday, July 1, 2017.

Usage history by calendar month:

Month:

Usage history by start and end dates.

Please note: No more than 31 days of usage history can be retrieved at one time.

If using the calendar, confirm year is correct before selecting month, then date.

Start Date: (MM/DD/YYYY)

End Date: (MM/DD/YYYY)

Users can only see data in 30 day sections -- there is no clear way to browse all your trip history.

How users describe the ideal payment method

We asked users to describe in one or two words the ideal WMATA payment system.

Flexible	Streamlined	Straightforward
Smartphones	App payment	Predictable

Recommendations

Near term

- A1. Improve information and instructions at metro stations to help orient users to the SmarTrip payment program. Information could be focused around:
 - How to get card
 - How to add value to a card
 - What do look for when “tapping” into the station
 - Understanding the distance-price model; notify users about cash-only exit fare kiosks
- A2. Consider running advertising campaigns focused on common misunderstandings; what the beeps mean when boarding a bus, the option to add value on a bus, as well as the option to add value to SmarTrip cards at retail stores across the D.C. area
- A3. Increase access to trip history online and give users the option to see all ride history
- A4. Investigate option to offer users the ability to pay with a credit or debit card at exit fare kiosks; current kiosks only accept cash

Long term

- B1. Seek out technology upgrades that emphasize improved user experiences. Investigate mobile app payment, mobile apps in general, as well as improving the experience going in or out of the faregates.
 - a. Improve feedback from faregates that a card was read
 - b. A mobile app has the potential to help consolidate information for users (service notifications, maps, planning, account management)
 - c. Investigate feasibility to pay with contactless credit card or mobile pay
- B2. Investigate feasibility to allow multiple riders per card which would help tourists reduce the upstart cost to ride the system
- B3. Create more feedback mechanisms when users add value to their cards online; send them notifications when the value is ready to use or investigate options to have value immediately available
- B4. Create promotional campaigns or incentives for users; research feasibility in giving users the \$2 (cost of card) back if they register their card online

Additional research studies

- Discover improvements to the station kiosks by conducting usability sessions or direct field observations
- Discover how well the online account system works for users by conducting usability testing
- Mobile app research
 - Conduct exploratory research into competing apps, users opinions, goals and needs
 - Perform low-fidelity user testing of app prototypes
- Additional research studies based on business goals, user feedback, and planned upgrades to the system

References

18F. (2019, January 24). Comparative Analysis. Retrieved from <https://methods.18f.gov/decide/comparative-analysis/>

Usability.gov. (2013, June 30). Individual Interviews. Retrieved from <https://www.usability.gov/how-to-and-tools/methods/individual-interviews.html>

Appendix

Recruitment screener

Questions

1. How often do you ride the metro or bus service in the Washington, D.C. area?

- 8+ times a week
- A few times a week
- A few times a month
- At least once
- N/A - haven't ridden it - **(terminate)**

2. Have you used a SmarTrip card to enter the metro or pay for bus service?

- Yes
- No - **(terminate)**

3. Do you use the online SmarTrip website to manage your SmarTrip account?

- Yes
- No

4. Have you ever added value to your card using a kiosk in a metro station?

- Yes
- No

5. Approximately, how many hours a day do you spend on a computer, tablet or smartphone?

- 8+ hours
- 4-8 hours
- 1-4 hours
- N/A - don't use any - **(terminate)**

6. What types of online activities have you participated in the last 30 days?

- Web searches
- Shopping
- Social media
- Email or IM/chat
- News/weather/sports/blogs
- Online banking / financial services
- Lookup restaurants or menus
- Order food for pickup/delivery
- Buy or reserve travel
- Other: _____
- None of the above - **(terminate)**

7. How often do you purchase something using the internet?

- Daily
- 1 to 2 times a week
- 1 to 2 times a month
- Once a year
- N/A - haven't purchased anything - (**terminate**)

8. Do you currently live in the Washington, D.C. metro area?

- Yes
- No

9. Do you have a computer, tablet, or phone that you could use to connect to a video call?

- Yes
- No

10. What is your gender?

- Female
- Male
- Non-binary
- Prefer not to answer

11. Into what age range do you fall?

- 18-21
- 22-37
- 38-53
- 54-72
- 73-90
- <18 - (**terminate**)

12. Would you be willing to participate in a 1 hour video call or in-person session if were selected for this study? In-person sessions would be located near you or at your residence.

- Yes
- No - (**terminate**)

Interview Guide

Introduction questions

- How often do you travel on the metro or bus in a given week?
- Have you linked your SmartTrip card to an online account through WMATA?

Metro and payment methods

- What has been your experience using a SmarTrip card to pay for metro or bus service?
- How do you manage and refill the money on your SmarTrip card? Does that work well for you?
- What has been your overall impression of the SmarTrip card program?
- What has been your experience with using the entrance gates to enter the metro station or boarding a bus and tapping to pay?
- What has been your experience using an in-station payment kiosk? What are the things you do most often using the kiosk?
- If you have more than one SmarTrip card, how do you manage and keep track of them?
- Have you ever had an experience where something went wrong with your account or card? If so, did you contact customer service? Was it resolved?

Online account management

- Do you have an online account to manage your SmarTrip card(s)? *If yes, continue with these questions:*
 - What has been your experience using the online account?
 - What types of things do you do most often using your account?
 - Is there anything you'd like to be able to do that you can't do right now with the online account?

Experiences with transportation systems

- Have you visited another city and used its transportation system? *If yes, continue with these questions:*
 - Could you briefly describe how the payment system/process worked?
 - What did you like or what didn't you like about it?
 - Do you feel like any similar features or offerings could be applied to metro's SmarTrip system?

Future systems

- If there was one thing WMATA could do to improve its payment service, what would it be?
- What's one or two words you would use to describe a future payment system for WMATA?

Cool-down

- If WMATA offered an app to manage your SmarTrip account, do you think you would find it useful? If not, why?
- Would you ever be willing to use your SmarTrip card to pay for other services in the city? (bikeshare, regional train, food services, etc.)
- Are you aware you can reload your SmarTrip card at a number of different stores across the DC area? (CVS, Giant, Walgreens)
- Have you ever reloaded your SmarTrip card on a bus?

Wrap-up

- That's it for my questions. Is there anything else you'd like to tell me about?
- If I have any follow-up questions would you mind if I contact you?

Competitive analysis comparison chart

	Chicago's L	Boston's T	San Francisco BART	WMATA (metro)
<i>Brief summary</i>				
<i>Payment system</i>				
<i>Description of payment system</i>				
<i>Future offerings (if applicable)</i>				
<i>Online account/app offerings</i>				
<i>Customer reviews</i>				
<i>Addt. Notes</i>				