

## King County Metro Transit

Route 140
Pre-RapidRide F Line
Final Report
May 2014



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Change



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## **Project Overview**

#### **Background and Objectives**

In October 2010, King County Metro began introducing its RapidRide service. RapidRide provides more frequent and faster service as vehicles make fewer stops, make extensive use of transit signal priority and on some lines use semi-exclusive lanes to bypass traffic. RapidRide runs no less than every 10 minutes during peak commuting hours, every 15 minutes in most off-peak hours

RapidRide A and B lines were launched in October 2010 and 2011, respectively. RapidRide C and D lines were launched simultaneously in September 2012. RapidRide E line launched in February 2014. RapidRide F line will launch in June 2014 and will replace Route 140.

To assess the impact of the changes on the rider experience, Metro routinely conducts on-board surveys before and after these changes to service. The purpose of these surveys is to obtain feedback about the service and any difficulties riders have with it, as well as to assess levels of satisfaction and gain insights on customer benefits or impacts as a result of changes to service.

Key objectives of the research are to:

- Measure impact of service change on customer satisfaction with travel time, frequency and reliability of service, safety, experiences while waiting and on the bus, and ease of transferring.
- Identify issues / concerns with service and recommendations for improvements.

This report provides this data for Route 140; a follow-up survey will be conducted on RapidRide F line in Fall 2014.

#### Methodology

On-board surveys are the most efficient means to reach riders on specific routes.

Two interviewers distributed and collected surveys on-board Route 140 on three different weekdays. Northwest Research Group partnered with Consumer Opinion Services for on-board survey personnel, ensuring that interviewers had general experience with market research as well as specific experience with on-board or similar intercept interviews. In addition to the interviewing staff, Northwest Research Group and Consumer Opinion Services provided supervisory and management personnel support for quality assurance purposes.

Data collection was initially scheduled on April 9 and April 10, 2014. The goal was 500 completed surveys. As ridership on Route 140 is relatively low on any given trip, a third day of data collection was scheduled on April 17, 2014 to meet this goal. The survey was conducted weekdays only.

Date	Time	
April 09, 2014		
April 10, 2014	6:00AM to 2:00PM and 12:00PM to 8:00PM	
April 17, 2014		

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Efforts were made to distribute surveys to all riders as they boarded the bus. All boarding riders were approached by an interviewer and asked to complete the survey. Interviewers kept a rough tally of the number of riders approached and surveys distributed to obtain an estimate of distribution and response rates.

Respondents had two options to complete: (1) printed questionnaire completed on-board and returned to the interviewer during the trip and (2) printed questionnaire returned to Metro using Business Reply Mail. Because of the low ridership on this route, riders who returned the survey while on-board were given two free ride tickets.

Printed surveys were available in English, Spanish, Chinese, and Vietnamese.

- Overall the majority (92%) of respondents completed the survey while on-board and 8% returned by mail.
- Sixteen respondents opted to complete the survey in Spanish and no surveys were completed in Chinese and Vietnamese.

Route	# Completes	% On-Board	% Mailed Back	% English
Route 140	554	92%	8%	99%

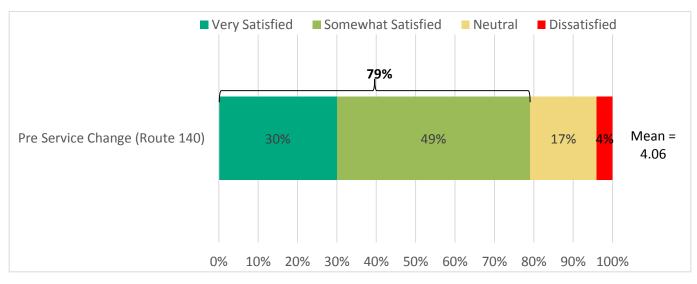
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## **Summary of Key Findings**

Overall satisfaction with Route 140 is fairly high with nearly four out of five riders (79%) stating that they are satisfied with Route 140.

Figure 1: Overall Satisfaction Pre Service Change



Q7 - Overall how satisfied are you with [Route 140]? 5 = very satisfied and 1 = very dissatisfied Rows may not sum to 100% due to rounding

Base: Pre (n = 554)

For the six primary dimensions of service, satisfaction is highest for the experience on the bus and travel time.

Satisfaction is lowest for waiting for the bus-specifically the waiting areas-and for the ease of transferring to/from Route 140.

	Route 140		
	Pre (April 2014)	Post (XXX 2014)	
Overall Satisfaction	4.06		
On the Bus	4.07		
Travel Time	4.03		
Frequency / Reliability	3.85		
Personal Safety	3.83		
Ease of Transferring	3.78		
Waiting for the Bus	3.77		

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## **Customer Profiles**

In general, riders on Route 140 are a nearly equal mix of men and women.

The average age of Route 140 riders is 40 years old.

Riders on Route 140 have relatively low incomes; over four out of five (83%) have household incomes below \$35,000 annually. Over half (58%) have annual household incomes of less than \$20,000.

Less than half (43%) of Route 140 riders consider themselves white.

Table 1: Customer Demographics

	Route 140 (Pre) (n=554)	RapidRide F line (Post) (n=xxx)
Gender		
Male	52%	
Female	48%	
Age		
< 25	34%	
25 – 34	19%	
35 – 44	13%	
45 – 54	17%	
55 – 64	12%	
65+	6%	
Mean	39.9	
Income		
<\$20,000	58%	
\$20,000 - \$35,000	25%	
\$35,000+	17%	
Race / Ethnicity		
% White	43%	
% Hispanic	20%	
Language Spoken		
% English	83%	
% Spanish	5%	
% Other Language	12%	
<b>English Proficiency</b>		
% Very Well or Well	97%	
% Not Well	3%	

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The majority of Route 140 riders are frequent riders—averaging 24 one-way rides monthly.

While commuting to and from work is the most common trip purpose reported (47%), Route 140 riders are quite varied with their reasons for riding with one in five stating that they ride for appointments (21%) and for shopping / running errands (21%).

Riders generally ride throughout most of the day with the majority of the trips taken during morning (45%) and afternoon commute hours (50%).

Nearly four out of five (79%) riders on Route 140 have ridden for more than a year, and most (55%) have been riding for five years or more.

Table 2: Travel Characteristics

	Route 140 (Pre)	RapidRide F line (Post)
	(n=554)	(n=xxx)
Number of One-Way Rides in Last 30 Days		
10 or fewer	37%	
11 – 20	25%	
21 – 50	29%	
>50	9%	
Mean	24.2	
Trip Purpose(s)*		
To / from work	47%	
Appointments	21%	
Shopping / errands	21%	
Fun / recreation	19%	
To / from school	12%	
Other	14%	
Time(s) of Day Ride*		
Weekdays before 6:00 a.m.	16%	
Weekdays 6:00-9:00 a.m.	45%	
Weekdays 9:00 a.m3:00 p.m.	37%	
Weekdays 3:00-6:00 p.m.	50%	
Weekdays 6:00-9:00 p.m.	29%	
Weekdays after 9:00 p.m.	16%	
Weekends	33%	
Length of Time Riding		
Less than 6 months	9%	
6 – 12 months	12%	
1 – 5 years	24%	
5 years or more	55%	

<sup>\*</sup> Sums to more than 100%; multiple responses provided.

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While over half (51%) of riders use an ORCA card, the majority (58%) still use cash to pay their fare.

• Of those who use ORCA cards, nearly half (46%) have some form of pass, but nearly a third (30%) say that they are "not sure" of what product is loaded on their ORCA card.

Table 3: Fare Payment

	Route 1	40 (Pre)	RapidRide F line (Post)
	(n=5	554)	(n=xxx)
Fare Payment*			
ORCA Card	51	.%	
Cash	58	3%	
Tickets	15	%	
Media on ORCA Card (users)	Including	Excluding	
	Not sure	Not Sure	
Pass	32%	46%	
Pass & E-Purse	14%	20%	
E-Purse Only	24%	34%	
Not Sure	30%	***	

<sup>\*</sup> Sums to more than 100%; multiple responses provided.

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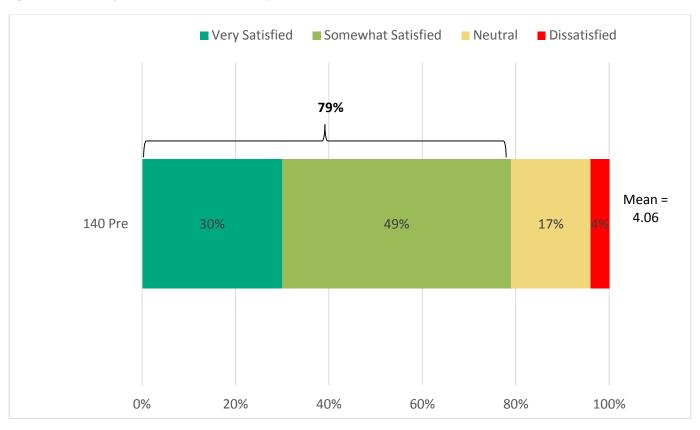


### **Route 140**

#### **Overall Satisfaction**

Four out of five riders (80%) stating that they are satisfied with Route 140.

Figure 2: Overall Satisfaction with Service Route 140 (pre)



Q7 - Overall how satisfied are you with [This Route / the RapidRide F line]? 5 = very satisfied and 1 = very dissatisfied Rows may not sum to 100% due to rounding Base: 140 Pre n=554; RapidRide F Post n=xxx

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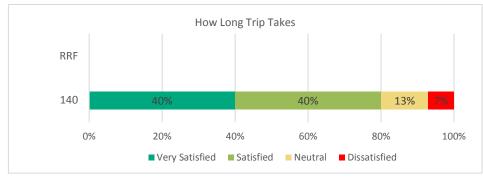
#### **Satisfaction with Travel Time**

Of the six primary service dimensions, Route 140 riders rate travel time second highest.

Route 140 riders are less satisfied with the number of stops the vehicle makes than actual travel time.

Figure 3: Satisfaction with Travel Time









	Number of Stop	S
	% Satisfied	Mean
RRF		
140	72%	3.95

Q1 – How satisfied are you with . . .? 5 = very satisfied and 1 = very dissatisfiedBase: 140 Pre n=554; RapidRide F Post n=xxx

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#### **Satisfaction with Personal Safety**

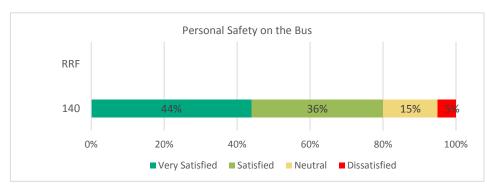
Overall, Route 140 riders are somewhat satisfied with personal safety.

- While satisfaction is fairly high with personal safety on the bus and waiting for the bus during the daytime, satisfaction drops when it comes to the behavior of others, both on the bus and while waiting for the bus.
- Personal safety while waiting when it is dark is the lowest rated safety attribute.

Figure 4: Satisfaction with Personal Safety



Overall mean is an average of those elements of service in this dimension that are included in both pre and post service change questionnaires. Mean is based on a scale from 1 to 5 where "1" means "very dissatisfied and "5" means "very satisfied."



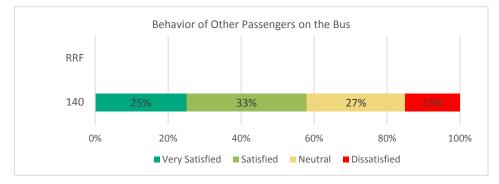
Personal Safety on the Bus				
	Mean			
RRF				
140	80%	4.19		



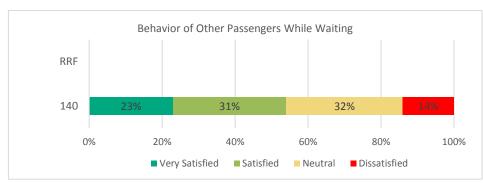
Personal Safety Waiting for a the Bus Daytime		
	% Satisfied	Mean
RRF		
140	80%	4.12

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Behavior of Other Passengers While Waiting		
	% Satisfied	Mean
RRF		
140	54%	3.59



Personal Safety While Waiting When Dark		
	% Satisfied	Mean
RRF		
140	56%	3.57

Q2 – How satisfied are you with . . .? 5 = very satisfied and 1 = very dissatisfied Rows may not sum to 100% due to rounding

Base: 140 Pre n=554; RapidRide F Post n=xxx

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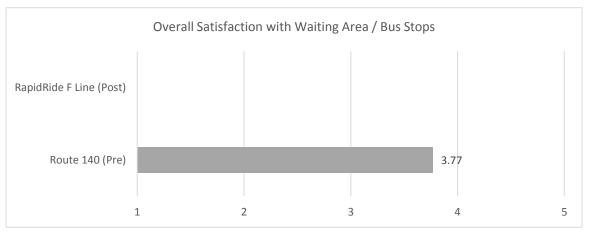


#### Satisfaction with Waiting Area / Bus Stop Where Boarded

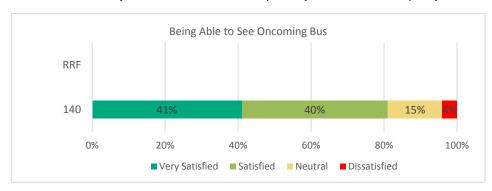
Overall satisfaction with the waiting areas / bus stops for Route 140 is the lowest of the six primary dimensions, slightly lower than ease of transferring (mean score of 3.77).

• This is primarily a result of low ratings for protection from weather (mean score of 3.38), cleanliness of waiting areas (mean score of 3.65), information about routes and connections (mean score of 3.70), and being able to sit while waiting (mean score of 3.70).

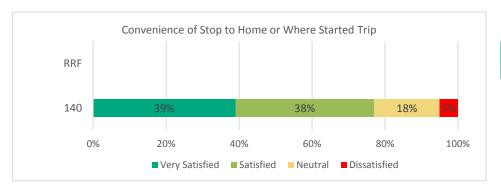
Figure 5: Satisfaction with Waiting Area / Bus Stop Where Boarded



Overall mean is an average of those elements of service in this dimension that are included in both pre and post service change questionnaires. Mean is based on a scale from 1 to 5 where "1" means "very dissatisfied and "5" means "very satisfied."



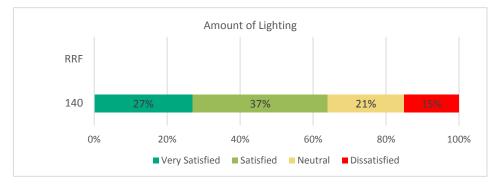
Being Able to See Oncoming Bus		
	% Satisfied	Mean
RRF		
140	81%	4.17



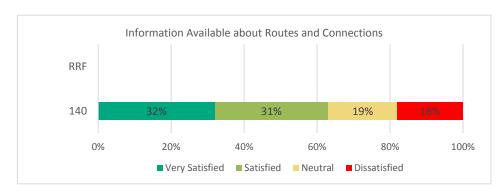
Convenience of Stop to Home or Where Started Trip		
	% Satisfied	Mean
RRF		
140	77%	4.08

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Amount of Lighting		
	% Satisfied	Mean
RRF		
140	64%	3.71



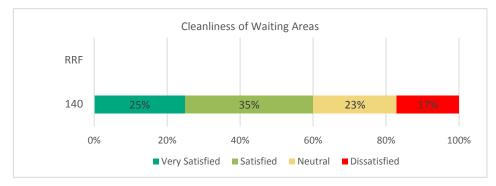
Information Available About Routes and Connections		
	% Satisfied	Mean
RRF		
140	63%	3.70



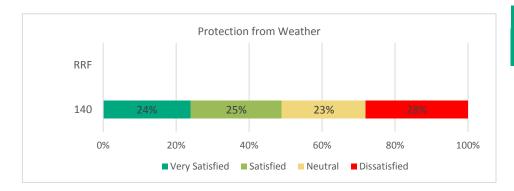
Being Able to Sit While Waiting		
	% Satisfied	Mean
RRF		
140	62%	3.70

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Cleanliness of Waiting Area		
	% Satisfied	Mean
RRF		
140	60%	3.65



Protection from Weather		
	% Satisfied	Mean
RRF		
140	49%	3.38

Q3 — How satisfied are you with . . .? 5 = very satisfied and 1 = very dissatisfied Rows may not sum to 100% due to rounding
Base: 140 Pre n=554; RapidRide F Post n=xxx

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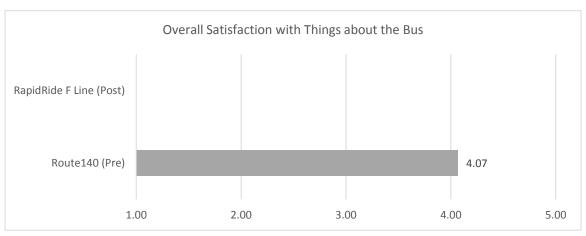


#### Satisfaction with Things about the Bus

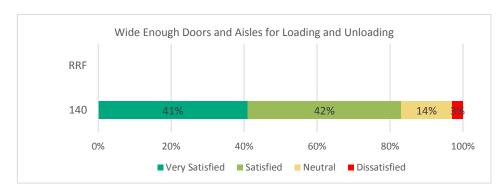
Of the six primary service dimensions, Route 140 riders are most satisfied with things about the bus

- Satisfaction is highest with having wide enough doors /aisles for loading and unloading and having enough bars / straps to hang onto.
- Satisfaction is lowest for cleanliness of the bus interior and room to stand if no seats are available

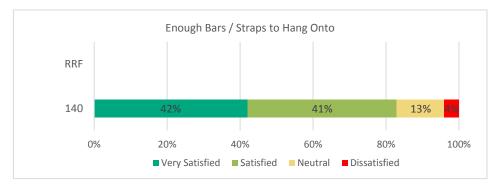
Figure 6: Satisfaction with Things about the Bus



Overall mean is an average of those elements of service in this dimension that are included in both pre and post service change questionnaires. Mean is based on a scale from 1 to 5 where "1" means "very dissatisfied and "5" means "very satisfied."



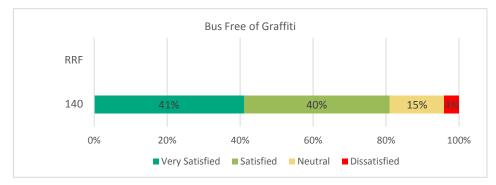




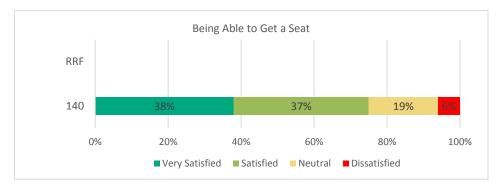
Enough Bars / Straps to Hang Onto		
	% Satisfied	Mean
RRF		
140	83%	4.19

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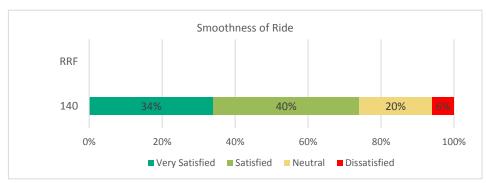




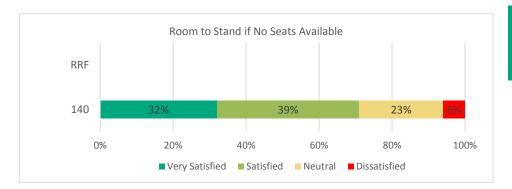
Bus Free of Graffiti		
%		
	Satisfie	ed Mean
RRF		
140	81%	4.16



Being Able to Get a Seat		
	% Satisfied	Mean
RRF		
140	75%	4.05



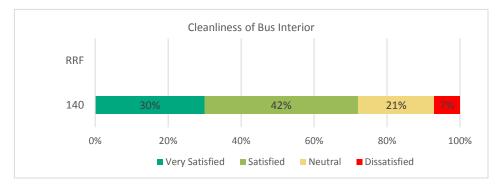
Smoothness of Ride		
	% Satisfied	Mean
RRF		
140	74%	4.00



Room to Stand if No Seats Available		
	% Satisfied	Mean
RRF		
140	71%	3.96

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Cleanliness of Bus Interior		
	% Satisfied	Mean
RRF		
140	72%	3.94

Q4 – How satisfied are you with  $\dots$ ? 5 = very satisfied and 1 = very dissatisfied Rows may not sum to 100% due to rounding

Base: 140 Pre n=554; RapidRide F Post n=xxx

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#### **Satisfaction with Frequency and Reliability**

Compared to the other primary dimensions Route 140 Riders satisfaction with service frequency and reliability is middle-of-the pack.

- Satisfaction is highest with on-time performance.
- Satisfaction is lowest for frequency of service on during the evenings / nighttime and on the weekends

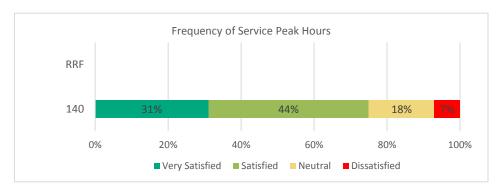
Figure 7: Satisfaction with Frequency and Reliability



Overall mean is an average of those elements of service in this dimension that are included in both pre and post service change questionnaires. Mean is based on a scale from 1 to 5 where "1" means "very dissatisfied and "5" means "very satisfied."



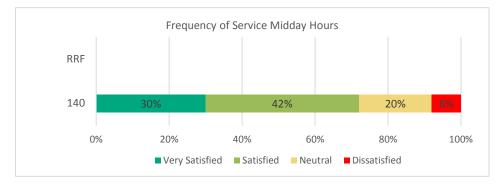
On-Time Performance		
	% Satisfied	Mean
RRF		
140	78%	4.07

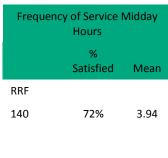


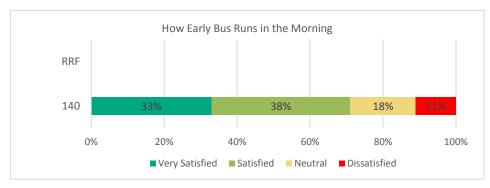
Frequency of Service Peak Hours		
	% Satisfied	Mean
RRF		
140	75%	3.98

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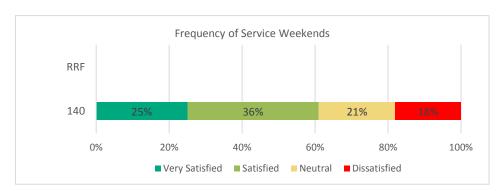




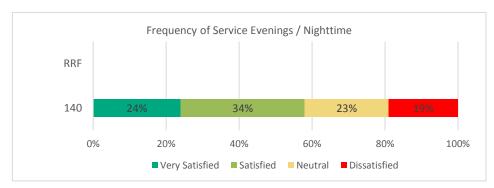




How Early Bus Runs in the Morning		
	% Satisfied	Mean
RRF		
140	71%	3.89



Frequency of Service		
Weekends		
	%	
	Satisfied	Mean
RRF		
140	61%	3.63



Frequency of Service Evenings / Nighttime		
	% Satisfied	Mean
RRF		
140	58%	3.57

Q5 — How satisfied are you with . . .? 5 = very satisfied and 1 = very dissatisfied Rows may not sum to 100% due to rounding

Base: 140 Pre n=554; RapidRide F Post n=xxx

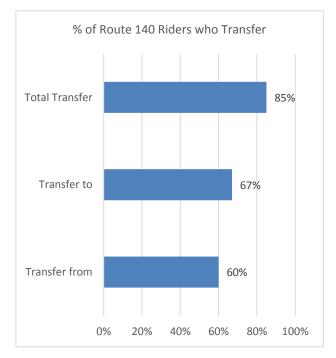
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## **Satisfaction with Ease of Transferring**

Just over four out of five Route 140 riders transfer either to the 140 or when they get off in order to reach their final destination.

Figure 8: Percent of Riders who Transfer



Q11A: Did you transfer TO this route from another bus on this trip today? Q11B: Will you transfer FROM this route to another bus to reach your destination on this trip today?

Base: Route 140 n=554

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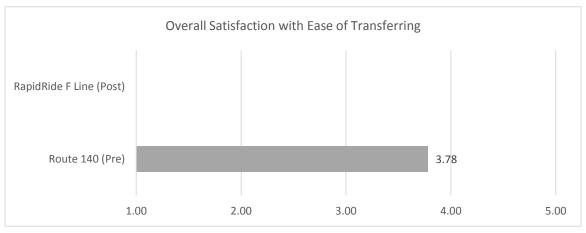


Route 140 riders rate the ease of making transfers as the second lowest of the six primary service dimensions.

Low satisfaction is primarily attributable to:

- Buses arriving on time when transferring
- Wait times when transferring

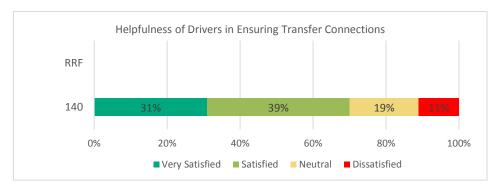
Figure 9: Satisfaction with Ease of Transferring



Overall mean is an average of those elements of service in this dimension that are included in both pre and post service change questionnaires. Mean is based on a scale from 1 to 5 where "1" means "very dissatisfied and "5" means "very satisfied."



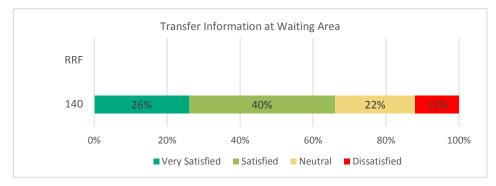
Number of Transfers		
	% Satisfied	Mean
RRF		
140	78%	4.07



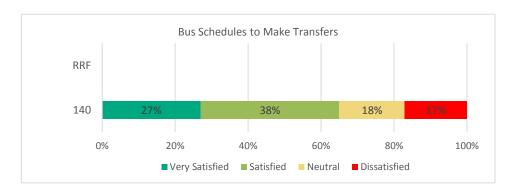
Helpfulness of Drivers in Ensuring Transfer Connections		
	% Satisfied	Mean
RRF		
140	70%	3.84

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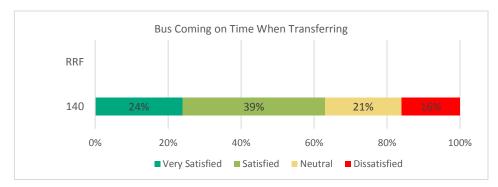








% Satisfied	Mean
	ivican
65%	3.72
	65%



Bus Coming on Time When Transferring		
	% Satisfied	Mean
RRF		
140	63%	3.65



Wait Time Between Transfers		
	% Satisfied	Mean
RRF		
140	62%	3.64

Q6 – How satisfied are you with . . . ? 5 = very satisfied and 1 = very dissatisfied Rows may not sum to 100% due to rounding

Base: Riders who Transfer from Another Bus to or from this route –Route 140 (Pre) n = 472; RapidRide F Post n=xxx

Project: Route 140 Pre-Service Change



#### **Appendices**

#### Route 140 (Pre) Questionnaire

The questionnaire for Route 140 were formatted to print double-sided on legal size (8.5" X 14") paper and were printed in English and Spanish. The English version of the Route 140 questionnaire is included for reference.

# Route 140 Rider Report Card

Please complete the questionnaire to let Metro Transit know how they are doing and how they can improve service on this route.

Return your completed questionnaire to the survey worker and you will be given a ticket good for one one-way ride on Metro.

If you are unable to complete the survey while on board the bus, fold the survey into thirds so the return address is showing and drop into any mailbox.

IF YOU HAVE ALREADY COMPLETED A QUESTIONNAIRE, PLEASE RETURN THIS TO THE SURVEY WORKER.

Thank you very much for your help.



We'll Get You There

Project: Route 140 Pre-Service Change



#### Instructions

Please check the box to show how satisfied or dissatisfied you are with that item for this route you are riding. Check "NA" if the item does not apply to you. Remember to rate this route you are riding, not other routes or Metro Transit in general. THANK YOU!

		Very Satisfied	Satisfied	Noutral (	Nissatisfied	Very Dissatisfied	Not Applicable
1.	Trip Time on Route 140	Jatistieu	Jansneu	ivedulari	71338ti311Eu	Disselisiieu	Applicable
	NHow long my bus trip takes						
7	The number of stops my bus makes						
2.	Personal Safety on Route 140						
	Personal safety while on the bus						
	Behavior of other passengers on the bus						
•	Personal safety while waiting for the bus during the day						
	Personal safety while waiting for the bus at night						
	Behavior of other people at the waiting area						
	Waiting Area/Bus Stop Where You Boarded Route 140 for This Trip						
	Being able to sit down while waiting						
	Cleanliness of waiting area						
	Amount of lighting						
	Protection from the weather						
	Having information available about routes and connections						
'	<ul> <li>Convenience of the bus stop to my home or where I was coming from</li> </ul>						
	Being able to see an oncoming bus						
4.	Things About Buses on Route 140						
1	Being able to get a seat						
•	Room to stand if no seats are available						
1	Cleanliness of the bus interior						
•	▼ Having the bus free of graffiti						
1	Smoothness of the ride						
•	Wide enough doors and aisles for loading and unloading						
	Frough bars/strans to hang onto while standing						

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1	ou make a transfer on this route, please sfer, go on to Question 6 below the bo		ns in the l	box belo	ow. If y	ou do NO	)T make a	
			Very				Very	Not
_	Face of Transfernic 1 - 1 from 11 - 11	10	Satisfied	Satisfied	Neutral (	Dissatisfied	Dissatisfied	Applicable
5.	Ease of Transferring to or from the 14	Ю						
	The number of transfers I make							
	The way buses are scheduled to make tra connections	nsfer						
	Waiting time between transfers							
	Helpfulness of drivers in ensuring transfer							
	The bus coming on time when transferring	g						
'	Transfer information at the waiting area							
Nov	go on to Question 6 below.							
Plea	se rate the items below when using th	e 140.					1/	N.
			Very Satisfied	Satisfied	Neutral F	)issatisfied	Very Dissatisfied	Not Applicable
6.	Frequency and Reliability of Buses on	Route 140	Jausiieu	oatisneo	- Neutran	/issetismed	Dissetisfied	Applicable
▼	The bus getting me where I'm going on ti							
•	How often the bus runs during peak hour. (6-9 a.m. and 3-6 p.m.)	5						
•	How often the bus runs during midday ho (9 a.m. to 3 p.m.)	urs						
▼	How often the bus runs in the evening/ni	ght						
▼	How often the bus runs on weekends							
•	How early the bus runs in the morning							
7.	Overall Satisfaction with Route 140		Vene				Venu	Not
			Very Satisfied 5	Satisfied I	Neutral D	issatisfied[	Very Dissatisfied A	
•	Overall how satisfied are you with Route :	140?	5	4	3	2	1	NA
8.	How many rides have you taken on Ro	oute 140 in th	e last 30 c	days? ((	Count a	roundtrip	as 2 rides	5)
8a.	☐ Work	trip you take most often on Route 140? Please check only one.  □ Fun/recreation/social						
	☐ School	☐ Appointm	nents					
	☐ Shopping/errands	□ Other						
9.	When do you usually ride Route 140?  ☐ Weekdays—before 6 a.m.  ☐ Weekdays—AM peak (6-9 a.m.)  ☐ Weekdays—PM peak (3-6 p.m.)  ☐ Weekdays 9 a.m. to 3 p.m.	Please check  Weekday  Weekday  Weekend	s 6-9 p.m s later tha		٦.			

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10.	Did you transfer <b>TO</b> Route 140 from another bus/train on this trip today?				
	☐ Yes — Which route? ☐ No				
11.	Will you transfer <b>FROM</b> Route 140 to another bus/train to re your destination on this trip today?  ☐ Yes — Which route? ☐ No ☐ Not				
12.	How long have you been a Metro rider?  ☐ Less than 6 months ☐ More than a year but less than 5 years ☐ 6-12 months ☐ 5 years or more				
13.	How do you pay your fare?  Cash Tickets ORCA card —what product(s) do you have on your card? Pass E-purse/money Both pass and an e-				
	□ Other				
	ase answer the following demographic questions to help us w evaluation.	ith			
14.	Are you?   Male  Female				
15.	How old are you? <u>years</u>				
16.	Do you consider yourself Hispanic?   Yes   No				
17.	Do you consider yourself White?				
18.	What is your total household income?  ☐ Under \$20,000 per year  ☐ \$20,000 up to \$35,000  ☐ \$35,000 and up				
19.	What is the primary language spoken at home?  ☐ English ☐ Other, please specify				
20.	How well do you speak English? □ Very well □ Well □ Not well □ Not at all				
21.	What is your home zip code?				
22.	What is your work zip code?				
	Or what is the nearest intersection to your work?				
and					

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