



Fare Study

Existing Conditions Report

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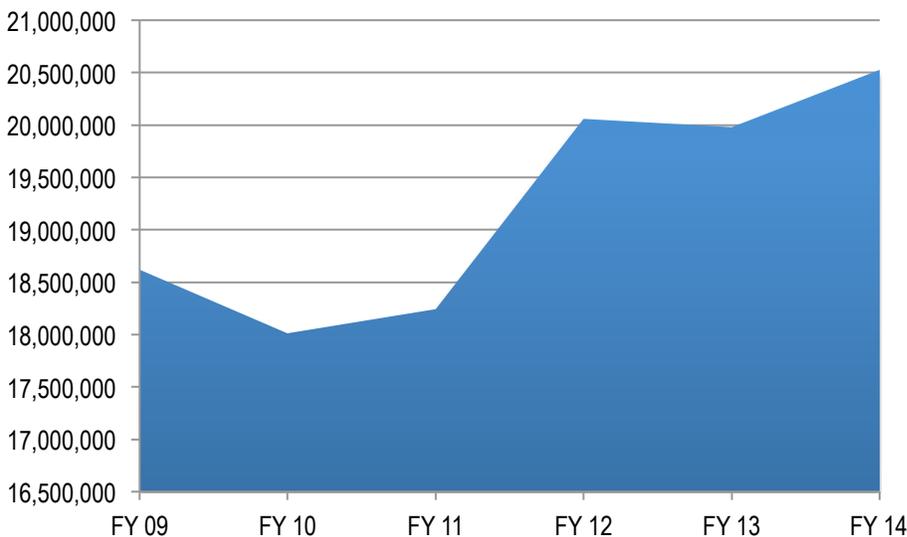
Introduction & Background

The Rhode Island Public Transit Authority (RIPTA) operates statewide public transit service, with service operated in 34 of Rhode Island’s 39 municipalities. RIPTA operates a total of 55 fixed routes, eight demand response Flex service zones, and complementary ADA paratransit service.

The total number of annual trips taken on RIPTA services, including ADA paratransit, was 20,530,047 in FY2014. This represents a 10.2% increase over FY2009. As shown in Figure 1, ridership actually dropped between FY2009 and FY2010, while RIPTA experienced 14.0% ridership increase over the last five fiscal year.

In FY2014, average weekday ridership on RIPTA’s fixed route and Flex services was 60,214 per day. Daily Saturday ridership was 35,534, and Sunday ridership was 19,971.

Figure 1: Annual RIPTA Ridership – FY2009 to FY2014



As RIPTA’s statewide transit system has grown and expanded, its fare policy and revenue collection methods have also evolved. RIPTA introduced a “one state / one rate” policy in 1998, transitioning from a four zone fare system (although a short Providence trolley zone was retained until 2005). This greatly simplified the fare structure, eliminating the need for riders to pay a higher fare every time a zone border was crossed, and eliminating the need for RIPTA to produce different monthly fare products for inter-zone travel.

Figure 1 shows the change in RIPTA base fare since the “one state / one rate” policy went into effect with a \$1.25 base fare. Prior to 1998, zone fares ranged from \$1.00 to \$3.00. Over the nearly two decades since 1998, RIPTA has increased the base fare three times. The current base fare of \$2.00 has been in place for since 2010 but notably is still well below the \$3.00 Zone 4 rate phased out in 1998, benefitting riders travelling the longest distances.

Figure 1: Timeline of RIPTA Base Fares



In 2008, RIPTA modernized its fare collection equipment, eliminating the use of tokens and most visual pass inspection. The GFI Odyssey farebox system was installed on all buses, providing for the use of magnetic swipe tickets and smart cards. This system also provides for fare media validation, greatly enhancing RIPTA’s ability to detect and reject fraudulent fare media.

Purpose & Goals of this Study

RIPTA has made only minor changes in its fare structure or technology over the last five years. This Fare Study is being performed in order to evaluate and assess the overall effectiveness of the current system, to understand the potential capabilities of new fare technologies available on the market today, and to establish a future fare policy vision that is convenient, cost-effective and equitable across the statewide service area. More specifically, project goals include:

1. Identify a vision for RIPTA’s future fare policy & payment system
2. Ensure fare policy is equitable
3. Make the system convenient and simple for riders
4. Ensure changes do not negatively impact ridership or revenue
5. Decrease the cost to operate and maintain the fare collection system
6. Maintain flexibility and ability to adapt to future market trends

The RIPTA Family of Services

RIPTA provides a range of service throughout the state. The 55 fixed bus routes include the new R-Line Rapid Bus route, eight park-ride or express routes (designated with an ‘X’) and 46 additional fixed bus routes. ADA paratransit service is also offered to complement this fixed route service. Finally, eight Flex service zones offer demand response service in suburban and rural parts of the state with lower transit demand. A more detail description of these services is provided below.

R-Line Rapid Bus

R-Line service is a fixed route Rapid Bus service implemented by RIPTA in June 2014. The service combined the former Route 11 Broad Street and Route 99 North Main Street as a frequent, limited stop service using distinct vehicles and transit signal priority to reduce travel time on its 11 mile route from the Cranston/Providence border, through downtown Providence to downtown Pawtucket.

Park & Ride Express Routes

RIPTA offers eight Park & Ride Express routes, distinguished by an “X” in the route number. These routes provide service along limited access highways for at least part of their route, or provide service from park and ride lots to downtown Providence. Service is only offered during peak periods.

Other Fixed Route Services

RIPTA operates a total of 46 additional fixed route services. Although some of these routes are classified as high ridership “Key Corridor Routes” (operated with more frequent service and targeted for future corridor enhancements), or as “Regional Routes”, connecting Providence with some of the state’s outlying large cities such as Woonsocket and Newport, the same “one state / one rate” fare policies apply. Trolley routes, or fixed route services operated with 35-foot low-floor hybrids painted as trolleys, also adhere to similar policies..

Flex Service

Flex Service is a program designed to help serve the unmet mobility needs of communities across Rhode Island. Flex Service offers passengers the option of calling a ride or picking up the Flex vehicle at one of its regularly scheduled Flex Stops, typically operates with a 16 passenger vehicle with space for two wheelchairs, and travels within a geographically-limited zone known as a Flex Zone. Each Flex Zone represents a suburban or rural area that has little or no fixed-route bus service. The Flex Vehicle travels within the Flex Zone, picking up and dropping passengers off within the zone and connecting them to fixed-route bus service for travel outside the zone.

ADA Paratransit Service

ADA paratransit services provides transportation for individuals with disabilities and others who are unable to use the fixed route system. Certification is required and reservations are required for all trips. RIPTA provides statewide door-to-door service for any trip beginning and ending within ¾ mile of the fixed route system.

Existing Fare Technology & Collection Equipment

Fareboxes

RIPTA buses are equipped with GFI Odyssey Fareboxes, installed in 2008. The fareboxes are used to collect passenger cash for payment of base fare, transfers and certain calendar-based fare products. The fareboxes validate the denomination of bills inserted and generate transfer tickets and certain calendar-based products through the Trim unit. The Trim units read and verify transfer tickets, and issue calendar-based products and the 15-Ride Pass. The Trim units also record trip information on the 15-ride Pass and issue change cards which can be re-inserted for future travel. Finally, the fareboxes read smart cards issued by RIPTA.

There is an accompanying farebox console requiring RIPTA operators to manually push a button to count certain specialty fares, disabled fares, university fares, short-fares or to over-ride the system during special circumstances.

While the fareboxes fulfill all of the functional objectives promised by the manufacturer, SPX, the level of required support and ongoing maintenance is intensive.

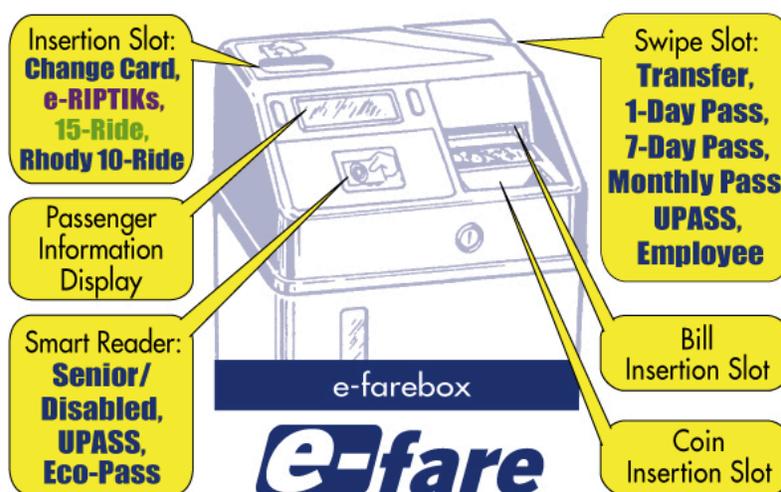


Figure 3: RIPTA's GFI Farebox

Almost half of all vehicle service calls are associated with farebox issues (>50 daily) and 90% of these are related to Trim units, sleeves or chokes on top of the Trim unit. A number of fareboxes delivered in conjunction with the purchase of Gillig buses in 2013 have experienced serious cracks on the base and lower corners; appearing to be a defect in manufacturing as opposed to maintenance. These fareboxes are no longer square and door often pop open while in service. RIPTA has installed side braces in an effort to stabilize the farebox and reduce the level of stress on cracked units.

Additionally, there are frequent Trim unit reading failures associated with 15-Ride Passes and change cards as the card coding flakes off or the card loses integrity with repeated use. Passengers have become aware of this weakness and some have attempted to trade-in partially used cards for a full replacement in value. Fareboxes have been installed at the Kennedy Plaza ticket window so agents can perform a test read on returned cards prior to making an exchange.

On-board cash payment can be an aggravating, time-consuming process, particularly during the purchase of pass products where combinations of bills and coins are required. While the process of inserting two single dollar bills for a base fare appears straight-forward, the insertion of six one dollar bills for a One Day Pass or \$23.00 dollars for 7- Day Pass is likely to average one minute and require at least one bill to be re-inserted for a good read. Boarding of more than one rider using cash at any location can unfavorably influence RIPTA's schedule reliability.

Operators are instructed to record passengers with short fares or those unable to pay. Operators use the bypass key when over-riding certain issues related to sensitive Trim units and bill acceptors; bypass mode can only be reversed by a supervisor so fareboxes sometimes remain in bypass mode for extended periods. When in bypass the farebox does not automatically associate fare types with cash/cards presented. This may result in weaker ridership counts and specialty program reimbursement.

To better address fareboxes failing in service, the Maintenance Department is considering deployment of a farebox technician at Kennedy Plaza to troubleshoot and change-out fareboxes while in service.

Ticket Vending Machines (TVM)

RIPTA has seven GFI VendStar Ticket Vending Machines in inventory. RIPTA intends to deploy four on the grounds of Kennedy Plaza to better support the needs of transferring passengers. Another unit is proposed to be deployed at the Providence Amtrak Station.

Final locations for the remaining two units and the specific fare products to be offered have yet to be determined. However, RIPTA has made a wise decision to deploy four initial units at a single location at Kennedy Plaza. In addition to serving a large number of passengers, grouping offers maintenance advantages and redundancy in the event of failure.



Kennedy Plaza Sales Office Equipment

Agents at Kennedy Plaza are supported by two cash register type systems which allow for pushing a single button to record the most commonly used fares. Manual cash drawers contain fare instruments as well as cash. Credit and debit cards are processed by stand-alone readers. The Sales Office appears relatively safe although a variety of staff have access to support schedule replenishment and other non-revenue activities.

Agents mentioned a fair number of customers desire to also purchase 7-day Passes from this location. In addition to sales, agents also answer service-related question and change-out faulty fare instruments.

Kennedy Plaza contains another office where a single agent accepts applications for Senior Disabled passes. The agent has responsibility for maintaining files, reviewing information, approving applications, photographing applicants and issuing cards. This process should be reviewed as customers stand over the agent working alone while she is reviewing the application and potentially approving or denying eligibility. In addition, there is personal information filed for several years immediately adjacent in the glass-walled office.

Current Fare Policies, Fare Media & Pricing

Base Cash Fare

The base cash fare for a one-way trip on all RIPTA buses and Flex vans is \$2.00. Children under the age of 5 ride free when accompanied by an adult.

Transfer Policy

Passengers paying a cash fare can purchase a transfer for an additional \$0.50 when boarding a RIPTA bus. Transfers are good for a second bus ride anywhere in the system within a two-hour time frame, with the exception of travel on the same route in the same direction in which the transfer was granted. Travel on the same route in the *opposite* direction is eligible. The two-hour timeframe to make a transfer begins at the time of purchase.

RIPTA Base Fare

Adults:	\$2:00/trip
Transfers:	\$0.50
<i>Children under 5 ride free</i>	

Transfers are dispensed and read by RIPTA fareboxes which are programmed to restrict certain use. In addition the “same route, same direction” policy above, transfers cannot be used on the same bus within ten minutes of issue, to prevent individuals from “passing” the ticket to another customer, such as at busier transfer points.

However, these restrictions require that the bus operator has correctly logged the trips as inbound or outbound service. If not, the farebox may allow a “same route, opposite direction” trip. Also, on Flex vehicles, service does not operate as “inbound or outbound,” so operators generally leave the farebox programmed in one direction all day, suggesting transfers may only be visually accepted but not verified by the farebox.

Mandated Discounts: ADA Fares and Senior/Disabled Half-Fares

Certain fare categories are set by federal law, in relation to a public transit agency’s base cash fare.

ADA paratransit services have a maximum fare set at twice the base cash fare, or \$4.00 per trip. RIPTA paratransit vans do not have fareboxes; drivers accept cash, Riptiks or other fare media (and advance payment) provided by outside organizations.

Persons age 65 and above or individuals with a disability pay full fare during peak hours of service (7:00 AM to 9:00 AM, and 3:00 PM to 6:00 PM) on weekdays, but only pay $\frac{1}{2}$ fare (\$1.00) at all other times upon presentation of a RIPTA Senior/Disabled ID Pass or a Medicare ID Card.

Although federal law mandates that transit agencies provide a Half Fare pass to those in possession of a Medicaid card, it does not mandate that a Medicaid card be accepted as valid fare payment. RIPTA policy has been for drivers to accept these cards as valid fare payment, even though the cards do not have an expiration date or photo identification.

Other Discounted Fare Products

RIPTA also provides a number of magnetic swipe fare products that offer customers added convenience and a discount off the base cash fare. These are shown in Table 1.

Table 1: Discounted RIPTA Fare Products

Fare Product	Cost	Description
Riptiks (book)	\$20.00	One-ride tickets sold in books of ten at base fare (\$2.00/trip). Marketed as offering a free transfer, but in practice offer unlimited rides for two hours once swiped.
One (1) Day Pass	\$6.00	Unlimited rides over a 24-hour period
Seven (7) Day Pass	\$23.00	Unlimited rides over a 7 day period.
15-Ride Pass	\$26.00	15 rides (at \$1.73 per one-way trip) over an unlimited time period
Monthly Pass	\$62.00	Unlimited rides during the current calendar month.

Special Fare Programs

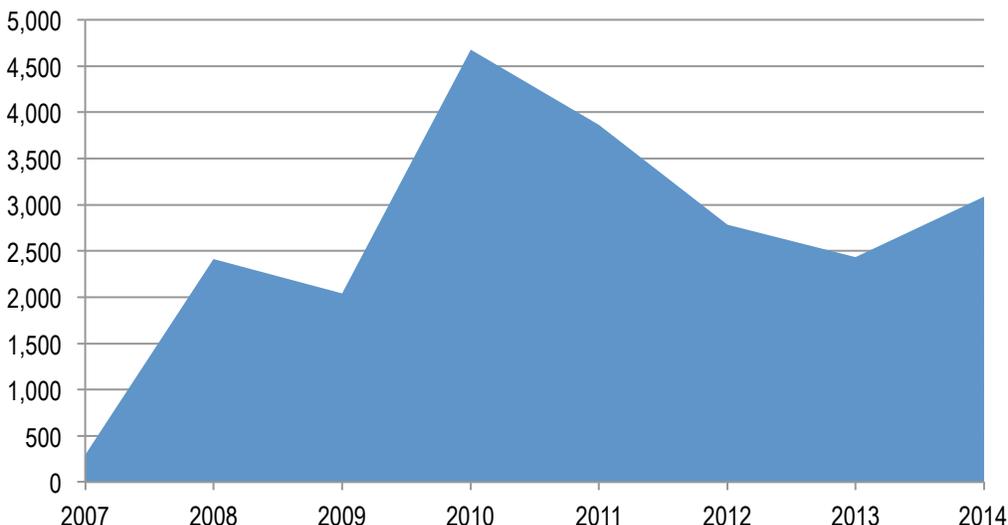
Senior/Disabled No Fare Program

Although federal law mandates the off-peak Half-Fare program for seniors and individuals with disabilities, RI State Law goes further to mandate free RIPTA service at all times for persons age 65 and above and those with a disability. These individuals may obtain a RIPTA No-Fare ID card. In addition to meeting age and disability requirements, applicants must demonstrate household income equal or below 200% of federal poverty level in order to be eligible for a No-Fare ID. The thresholds are based on household size, with current 2015 thresholds translating to RIPTA qualification for individuals with income less than \$23,540 or for a family of four with income less than \$48,500.

RIPTA’s Planning Department recently evaluated the impact of the Senior/Disabled Pass program and made a number of findings as described below.

The number of new participants signing up each year for Senior/Disabled passes peaked in 2010 (the year of RIPTA’s last fare increase) with over 4,500 new participants (see Figure 4). Although the enrollment rate slowed over the next two years (reflecting, in part, that passes have a five-year duration), the rate began to increase again in 2014, possibly in response to the new state Medicaid rules implemented during this year.

Figure 4: Senior/Disabled Pass Program – New Enrollees by year 2007-2014



Source: RIPTA Planning Department, January 2015

As shown in Table 2, approximately 5,580,000 annual trips are made using the Senior/Disabled No Fare Pass. This is significantly higher than the estimated 13,000 annual trips made using the Senior/Disabled Half-Fare Pass during off-peak times. No-Fare Pass users dramatically impact RIPTA services, representing 22% of all peak period trips taken on RIPTA and 31% of all off-peak trips. RIPTA must deploy additional drivers and buses to meet this demand

Table 2: Annual Senior/Disabled Pass Program Usage (2014)

Annualized Trips	Half Fare		No Fare		All Passes
	Disabled	Senior	Disabled	Senior	Total
Weekday Peak Trips	442	1,765	1,229,188	227,680	1,459,075
Weekday Off-Peak Trips	1,625	6,684	2,626,744	554,984	3,190,037
Saturday Trips	261	1,300	489,051	104,296	594,908
Sunday/Holiday Trips	120	812	294,293	54,943	350,168
Total Passenger Trips	2,448	10,561	4,639,276	941,903	5,594,188

Average Use	Half Fare		No Fare		All Passes
	Disabled	Senior	Disabled	Senior	Total
Avg. Unique Passes Used per Month (Individuals)	19	96	11,117	3,108	14,340
Average Annual Trips per Individual	129	110	417	303	NA
Weekday Peak Daily Average	2	7	4,878	903	5,790
Weekday Off-Peak Daily Average	6	27	10,424	2,202	12,659
Saturday Daily Average	5	25	9,405	2,006	11,441
Sunday/Holiday Daily Average	2	16	5,659	1,057	6,734

% of Daily Ridership	Half Fare		No Fare		All Passes
	Disabled	Senior	Disabled	Senior	Total
Weekday Peak	0.0%	0.0%	18.2%	3.4%	21.6%
Weekday Off-Peak	0.0%	0.1%	26.0%	5.5%	31.6%
Saturday	0.0%	0.1%	25.8%	5.5%	31.3%
Sunday/Holiday	0.0%	0.1%	26.6%	5.0%	31.6%

Source: RIPTA Planning Department, February 2015. Data based on calendar year 2014.

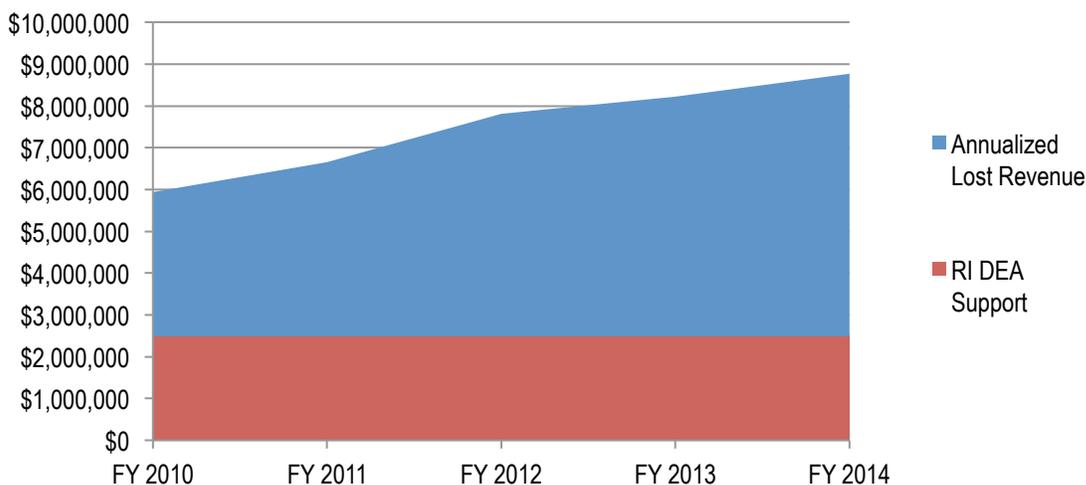
1. An annual systemwide average is not provided due to variations across categories.
2. Weekday peak and off-peak represent the percentage of total weekday ridership.

The RI Department of Elderly Affairs provides RIPTA a fixed subsidy of \$2.5 million annually through their allotment of the state gas tax. This subsidy is not adjusted by number of rides or indexed to cost per trip. Ridership and program costs have grown significantly as funding for this state-mandated program has remained flat.

As shown in Figure 5, RIPTA estimates their annual loss of revenue to provide senior/disabled transportation was over \$6.2 million in FY2014 after accounting for the \$2.5M (based on RIPTA's average revenue per trip for all other trips made).

RIPTA is currently working with the General Assembly to consider changes that would help address this gap.

Figure 5: Senior/Disabled Pass Program: Estimated Annualized Revenue Loss: FY2010-2014



Source: RIPTA Planning Department, January 2015

University Pass (U-Pass) Program

Currently, RIPTA had a U-Pass agreements with seven private colleges and universities in 2014, with one university dropping out of the program in December 2014. Public universities and colleges do not participate in the U-Pass program but, as described later in this document, make bulk purchases of fare media directly from RIPTA to resell within their campus communities at a discount.

U-Pass contracts are negotiated individually and vary by institution (and these different price structures take up fare options on RIPTA’s GFI fareboxes). However, all consist of a pay-per-ride contract based on trips recorded through a Smart Card or magnetic swipe school ID. RIPTA generates detailed ridership reports, which are provided to the institutions and used to generate monthly invoices based on a tiered pricing structure.

Participating U-Pass students, faculty and staff took about 1.1 million trips in 2014, which generated approximately \$1.41 million in fare revenues for RIPTA, an average of \$1.25 per trip. About 19% of U-Pass trips involve a transfer.

RIPTA is due to negotiate new contracts with U-Pass institutions in 2015.

Eco-Pass

As of January 2015, a total of 21 organizations were participating in RIPTA’s Eco-Pass program which allows employers and other organizations to offer their employees a reduced cost transit benefit. Employees are issued a smart card which tracks the number of trips taken each month. Employers are then billed based on either a per trip basis or flat monthly pass rate. Organizations must have a minimum of 10 employees to participate.

This program was started in 2009 and has steadily added participating employers each year. Eco-Pass riders took an estimated 141,500 trips in 2014, which generated approximately \$222,169 in fare revenues for RIPTA, an average of \$1.57 per trip. About 9% of Eco-Pass trips involve a transfer.

Fare Product Sales / Non-Farebox

RIPTA fare products are made available through a variety of sales outlets and distribution methods. These “non-farebox sales” help to reduce time-consuming transactions at the farebox and enhance customer convenience by increasing the number of locations and ways riders can obtain/pay their fare. Customers are offered incentives to purchase certain fare products through bulk discounts or free transfers.

Non-Farebox Product Sales

Non-farebox sale revenues were evaluated for the July 2012 to January 2015 period. Table 3 summarizes sales volume by six-month period, to account for seasonal fluctuations during summer and winter holidays. As shown, sales were consistently in the \$4.5 million range during this timeframe. However, there was a significant (27.2%) drop in non-farebox product sales during the latter half of 2014. This may largely be attributed to two factors, namely the reconstruction of Kennedy Plaza and the implementation of new rules for the purchase and reimbursement of non-emergency Medicaid transportation (NEMT) fares introduced by LogistiCare, the state’s new Medicaid transportation broker.

Table 3: RIPTA Non-Farebox Product Sales by 6 month period

	Monthly Passes	15 Ride	RIPTIKS	Total Value	Avg. Monthly Sales
July to Dec. 2012	57,149	14,072	22,059	\$4,350,279	\$725,047
Jan. to June 2013	64,032	13,681	18,169	\$4,689,061	\$781,510
July to Dec. 2013	61,943	12,931	19,783	\$4,572,321	\$762,054
Jan. to June 2014	61,427	12,146	19,080	\$4,505,862	\$750,977
July to Dec. 2014	41,834	12,122	18,549	\$3,279,859	\$546,643

With the exception of the latter half of 2014, average monthly sales are typically in the \$725,000 to \$780,000 range. However, the number and total value of RIPTA fare products sold varies by month, and generally drop during winter school breaks, holidays and the summertime. Over the timeframe analyzed, monthly sales ranged from a low of about \$507,000 in November 2012 to a high of about \$958,000 in September 2012 (see Figure 6).

Monthly pass sales represent about two-thirds of all RIPTA fare product sales. Slightly more RIPTIK books are sold monthly than 15-Ride passes. RIPTIK book sales peaked in August 2012, but generally range from 2,000 to 3,900 per month. About 1,500 to 3,100 15-Ride passes are sold each month.

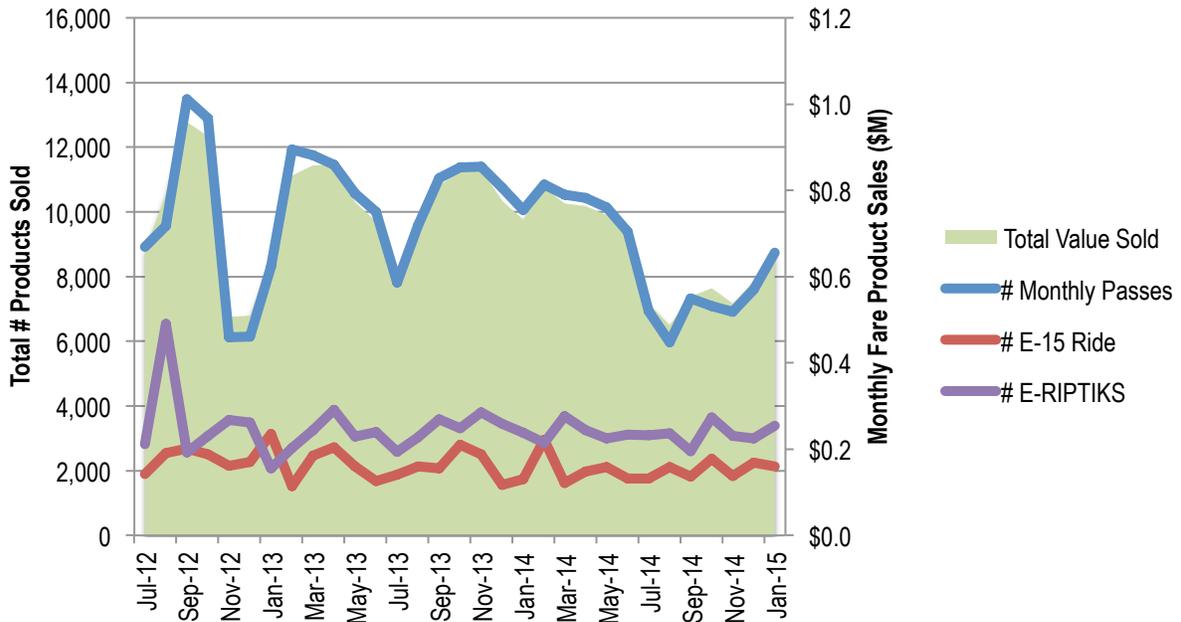
Non-Farebox Product Sales by Outlet/Customer

RIPTA currently uses a number of methods to distribute and sell fare products.¹ A snapshot illustrating the most recent trends in RIPTA fare product sales by method/customer type is shown in Figure 5. Distribution methods include:

- RIPTA Sales Outlets
- Consignment Sales Outlets
- Direct Sales to Bulk Purchasers

¹¹¹ In 2015, RIPTA plans to install ticket vending machines, starting with four in Kennedy Plaza. These machines will have the capability to sell various RIPTA fare products and will effectively serve as additional sales outlets.

Figure 6: RIPTA Non-Farebox Product Sales by Month: July 2012 – January 2015



In 2012 and 2013, the majority of non-farebox sales came through consignment outlets, and primarily grocery stores. However, the overall share of sales at these outlets dropped in 2014 when EOHHS discontinued its policy to allow purchases of Medicaid-supported RIPTA fare products at area supermarkets. As shown in Figure 7, the share of direct bulk purchases from RIPTA’s Finance Department has increased, as has direct sales at RIPTA sales outlets.

Figure 7: RIPTA Non-Farebox Product Sales by Outlet: 3 Year Snapshot

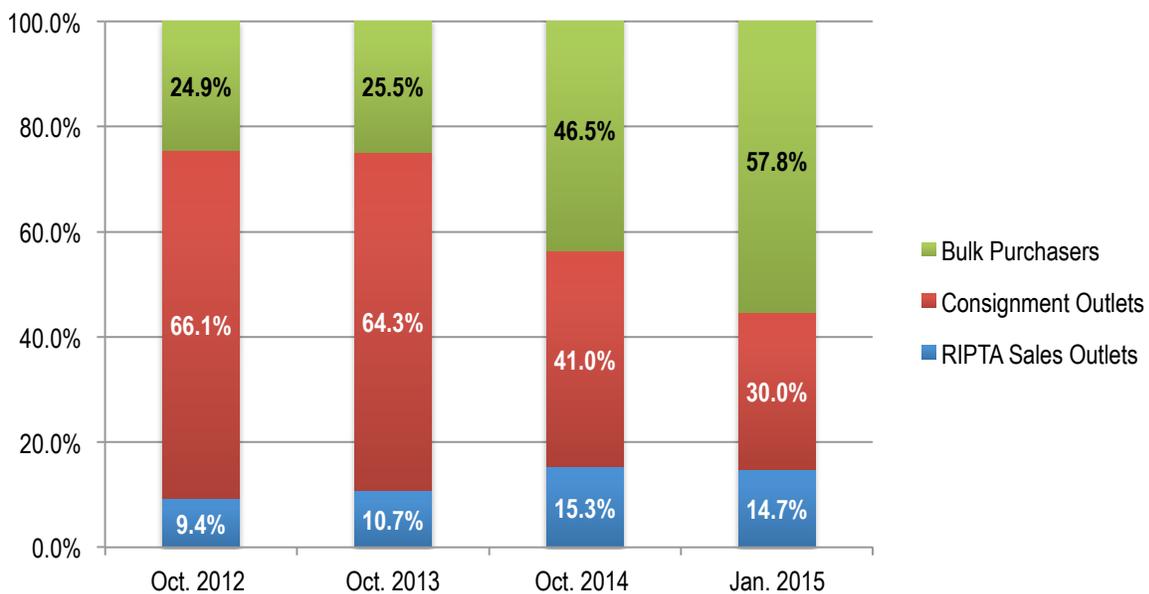


Table 4 further breaks down this snapshot of monthly sales data by outlet and customer type. As shown, direct fare product sales by RIPTA has grown slowly but steadily in volume and now represent about 15% of non-farebox sales. The drop in Kennedy Plaza sales in 2014 was likely due to Plaza reconstruction, and January 2015 sales indicate some recovery after bus service was restored to the Plaza mid-month.

Additional detail on these various fare product distribution methods is provided below.

Table 4: Snapshot of Monthly Product Sales by Outlet & Customer Type

Customer	October 2012 Sales	%	October 2013 Sales	%	October 2014 Sales	%	January 2015 Sales	%
RIPTA Sales Outlets								
Kennedy Plaza	\$78,812	9%	\$83,546	10%	\$68,534	12%	\$78,634	12%
Internet Orders	\$4,448	0%	\$8,958	1%	\$19,758	3%	\$21,326	3%
Walk-ins	\$3,310	0%	\$62	0%	\$0	0%	\$310	0%
Subtotal	\$86,570	9%	\$92,566	11%	\$88,292	15%	\$100,270	15%
Consignment Outlets								
Grocery Stores	\$496,492	54%	\$406,718	47%	\$89,888	16%	\$98,050	14%
Colleges (non-UPass)	\$110,836	12%	\$142,796	17%	\$140,920	24%	\$101,168	15%
Hospitals	\$4,334	0%	\$5,282	1%	\$6,386	1%	\$4,950	1%
Subtotal	\$766,846	66%	\$689,650	64%	\$411,180	41%	\$382,046	30%
Bulk Purchasers								
Logisticare/Medicaid	\$0	0%	\$0	0%	\$29,396	5%	\$159,762	23%
State agencies	\$25,294	3%	\$32,000	4%	\$31,322	5%	\$33,440	5%
High Schools	\$155,184	17%	\$134,854	16%	\$173,986	30%	\$177,878	26%
Employers	\$14,774	2%	\$14,492	2%	\$13,358	2%	\$13,140	2%
Non-Profit/Other	\$34,778	4%	\$38,750	4%	\$21,072	4%	\$9,428	1%
Subtotal	\$230,030	25%	\$220,096	26%	\$269,134	47%	\$393,648	58%
Other/Misc.	\$0	0%	\$356	0%	\$248	0%	\$186	0%
Total Product Sales	\$928,262		\$867,814		\$594,868		\$698,272	

Non-Farebox Sales Outlets & Distribution Methods

RIPTA Sales Outlets

RIPTA sells fare media products directly to the customer via two methods. The Kennedy Plaza ticket window functions as RIPTA's primary sales outlet. The ticket window is staffed by one to two employees at any one time; the RIPTA photo ID office for Senior/Disabled passes is also located in the Kennedy Plaza passenger facility.

Kennedy Plaza Ticket Window Hours

Weekdays: 7:00 AM – 6:00 PM
Saturdays: 9:00 AM – 12:00 PM
1:00 PM – 5:00 PM
Closed Sundays & Holidays

RIPTA also accepts credit/debit card transactions for fare products via their web page, with a \$4.00 fee added to each transaction to cover shipping, handling and credit card transaction fees. Both the ticket window and web-page sell monthly passes, 15-ride passes, Riptiks and one-day passes. Customers are also able to “walk-in” to RIPTA's administrative offices at 705 Elmwood Avenue in Providence to purchase fare media. Seven-day passes are only available on-board a RIPTA bus.



Consignment Sales

Consignment sales are intended to be a convenience for the customer, providing additional locations beyond RIPTA's sales outlets to purchase fare media. RIPTA mails or hand delivers current monthly passes to these outlets each month. Unsold monthly passes are returned to RIPTA and credited towards the following month's purchase. Other fare products do not expire and are reordered on an as-needed basis.

One-day and 7-day passes are not sold at these location. As shown in Table 4, the total volume of consignment sales decreased from about \$766,000 in October 2012 to about \$380,000 in in January 2015, a drop of more than 36% in the total share of RIPTA fare product sales.

While supermarkets are no longer the largest seller of RIPTA fare products, these currently represent about 14% of monthly fare product sales. About eighteen Shaw's and Stop & Shop supermarkets throughout Rhode Island sell RIPTA monthly passes, RIPTIKS and 15-Ride passes, and retain a 6% sales commission. As noted, the share of these grocery store consignment sales have dropped from 54% in October 2012 to 14% in January 2015. This drop in sales can be directly attributed to a mid-2014 change in policy by the RI Executive Office of Health and Human Services (EOHHS) which began requiring the fare for Medicaid-covered transit trips to be obtained directly through its vendor, LogistiCare. LogistiCare now purchases bulk fare media from RIPTA and mails them to Medicaid participants (see below).

Colleges and universities not participating in the U-Pass system but selling fare products on campus now represent the largest monthly consignment sales method. The University of Rhode Island, Rhode Island College, the Community Colleges (CCRI), the New England Technical Institute and the RI Nurses Institute all sell RIPTA fare media on at campus outlets. In October 2014, these sales represented about 24% of non-farebox sales; January 2015 figures are lower due to winter school breaks.

Rhode Island Hospital and Women & Infants Hospital both sell RIPTA fare media on consignment, representing a small percentage (1.1%) of fare media sales.

Bulk Purchasers of Fare Media

There are a number of other organizations or companies that make bulk purchases of fare media directly from RIPTA's Finance Department on a periodic basis. These entities place orders with RIPTA's Finance Department for specific fare products, and are billed by RIPTA accordingly.

As noted above, Logisticare now purchases fare products directly from RIPTA for state Medicaid-support transportation. In January 2015, these purchases totaled about \$159,762 or about 23% of non-farebox sales². Although this share of fare product sales represents a shift in distribution methods reflected in the corresponding \$300,000 drop in grocery store sales, it does not make up the difference.

The Providence Public Schools and a number of independent charter/regional schools make bulk orders of monthly passes for their students. Together, these orders represent the largest share of bulk purchases, a number that increased significantly in 2014 when Providence lowered the eligibility requirement for RIPTA passes to include students living at least 2.5 miles from school (rather than 3 miles). Monthly sales during the school year now total about \$175,000 per month, or about 26% of non-farebox sales. Over the 2015-2016 school year, Providence plans to further lower the bus pass eligibility threshold to students living at least 2 miles from school, which should translate into higher bus pass sales for RIPTA.

A number of state agencies and non-profit social service agencies make direct bulk purchases of fare media from RIPTA's Finance Department to provide their clients with transportation assistance. State agencies that make regular bulk purchases include the Department of Youth, Children and Families, the RI Department of Corrections and Wameworks. These purchases represent about 5% of non-farebox product sales.

Additionally, the payroll departments of several large employers make direct purchases to provide their employees with pre-tax transit pass benefits. Although consistently representing about 2% of non-farebox sales, the value of these monthly purchases has dropped from nearly \$15,000 monthly in October 2012 to about \$13,000 monthly in January 2015.

² As shown earlier in Figure 4, the number of new enrollees in the senior/disabled pass program increased in 2014, but the level of pass usage does not fully make up the loss of NEMT or RhodyTen fare products sold at grocery stores. A further review of sales and usage data into 2015 would be required to identify whether recent changes in state-supported NEMT trips have had an impact on particular RIPTA pass programs.

Ridership and Farebox Revenues by Fare Type

RIPTA ridership relies heavily on cash fares, with Monthly Passes as the most frequently used fare type. Cash fares are considerable, with Full Fares making up the vast majority of cash fares. The 7-day pass that is currently only sold on buses has the lowest ridership compared to all other fare payment types. Half Fare Cash ridership is the lowest ridership for fare payments, clearly demonstrated in Figure 8.

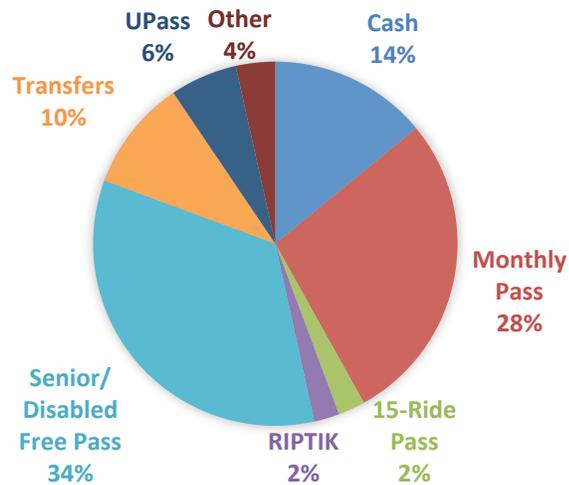
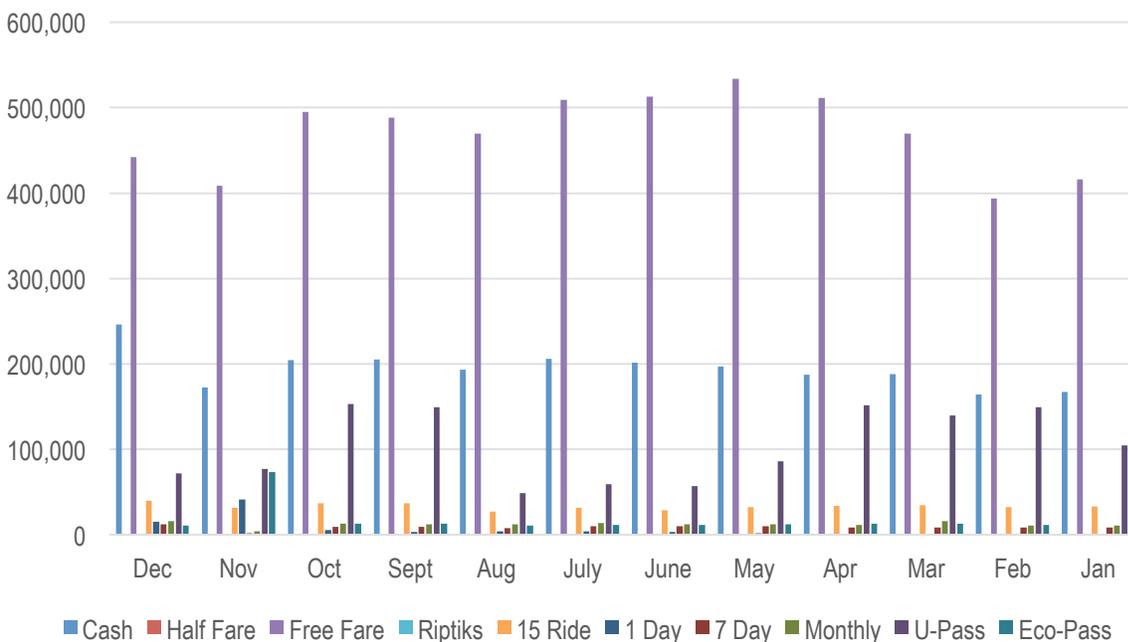


Figure 8: Avg. Monthly % of Riders by Fare Payment Type (2014)

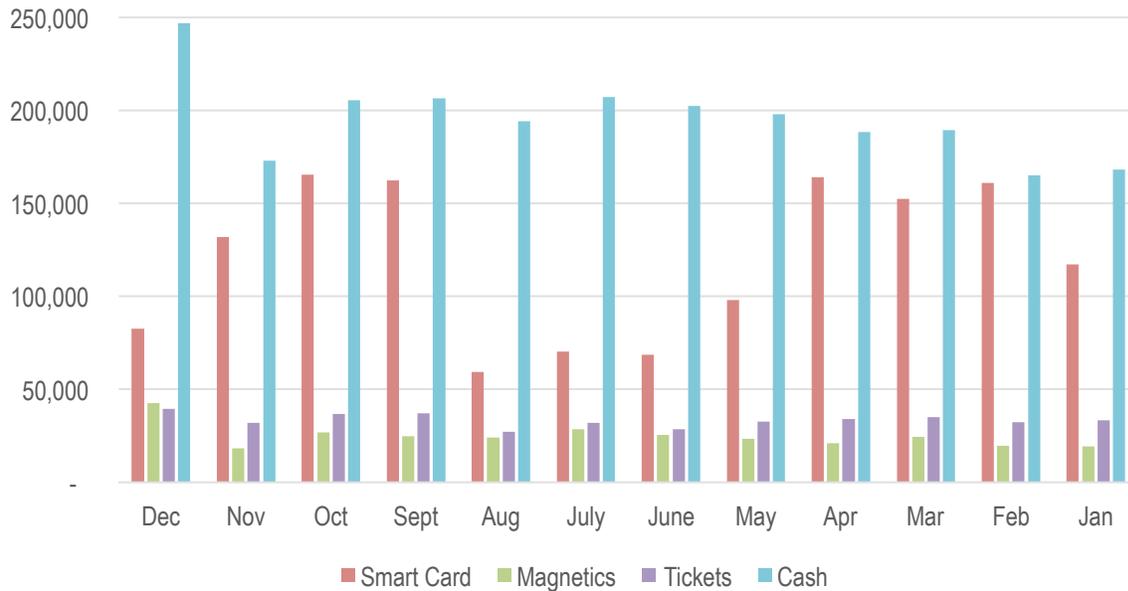
RIPTA current fare products have disproportionate use, both over the year, and monthly. Although the fare products used vary from month to month, the monthly pass and cash fares remain the dominant fare types, as shown in Figure 9.

Figure 9: Monthly Ridership by Fare Type (2014)



RIPTA fare products reside on different types of media, including smart cards, magnetic media, and paper tickets. Each of these types of media requires a different reader mechanism on the farebox, so the ridership by fare media type reflects the impact on farebox usage. The fare type media usage varies significantly from month to month.

Figure 10: Average Monthly Ridership by Fare Media Type (2014)



The system-wide average revenue per trip, including free trips, is \$1.25. The average revenue per trip without consideration of free trips is \$1.55.

Fare revenue by pass product ranges throughout the year based on external factors, such as weather and significant road construction. The average revenue per ride for 2014 based on “unlimited ride” passes is \$1.51 for monthly passes, \$1.11 for 7-day passes, and \$1.19 for one-day passes. The monthly average revenue per ride by pass product, as detailed in Figure 11, shows fluctuations in per-ride revenue throughout the year. Figure 11 is based on actual pass product usage at the farebox and does not reflect revenue realized by RIPTA due to pass products that were sold but remain unused.

Express Routes and Long Routes

RIPTA has several express routes and long routes that have been identified. In order to fully evaluate the potential for “Express Fares”, an examination of current payment methods on these routes is relevant (see Figure 12).

Clearly, as with overall travel on RIPTA services, most riders use a monthly pass on both express routes (labeled with an “X”) and long distance local routes. Of note is the greater use of cash fares and senior/disabled free fares on long routes verses express routes.

Both express routes and long routes have fewer transfers than the average for overall service

Figure 11: Average Revenue per Ride by Pass Product (2014)

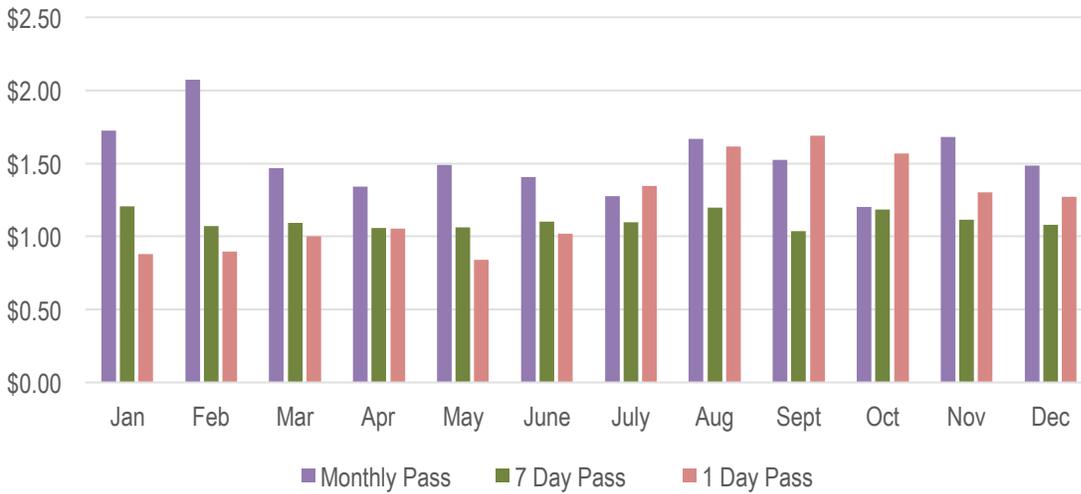


Figure 12: Average Monthly Fare Type Use on Express and Long Distance Routes (2014)



Use of Transfers

Based on October 2013 data, RIPTA’s Planning Department estimates about 36% of all RIPTA trips involve a transfer (see Table 5). The highest rate of transfers (46%) are made by passengers boarding with a Senior or Disabled No Fare smart card. In other words, almost every other rider using a No Fare pass takes a trip that involves at least two buses. The 7-Day Pass and Monthly Pass holders also have relatively high transfer rates of 43% and 38%, respectively. Monthly passes held by Providence Public School students in October 2013 also had a particularly high transfer rate of 44% (not shown separately in table below).

Table 5: Estimated Transfer Usage by Fare Payment Type, October 2013

Fare Payment Type	Transfer Rate
Cash, Riptiks, 15 Ride, and 10 Ride	29%
Monthly Pass	38%
U-Pass	19%
One Day Pass	25%
7 Day Pass	43%
Eco-Pass	9%
Senior Half-Fare	6%
Disabled Half-Fare	9%
Senior No-Fare	47%
Disabled No-Fare	46%
SYSTEMWIDE AVERAGE	36%

Source: RIPTA Planning Department estimates, October 2013.

The vast majority of these transfers are taking place at Kennedy Plaza where 42 RIPTA routes intersect. Other key transfer points include downtown Pawtucket (10 routes), Newport’s Gateway Center (5 routes), the Warwick Mall (3 routes), Wampanoag Plaza in East Providence (3 routes) and Woonsocket (2 routes).

Although the intent of RIPTA’s transfer policy may be to support trips that involve two buses, the only limitations imposed by the farebox are: 1) time (transfers must be initiated within two hours); and, 2) prevention of both trip segments being made on the same route in the same direction. Travel on the same route in the *opposite* direction is eligible. However, it is not clear how many transfers might be used in this manner to make a return trip, as RIPTA doesn’t correlate transfers to individual trips.

Summary of Public Input at April Listening Sessions

Two public listening sessions were hosted by RIPTA in April 2015 in order to hear the public's perspective on current fare products and payment methods. Attendees were also encouraged to suggest any changes they might like to see related to fare policy and the range of fare products offered. Riders were also asked about the on-board payment process and how that might be made faster and more convenient. The following summarizes input from these two meetings:

Comments on Purchasing Fare Products:

- Customers would like to see more third party outlets sell RIPTA fare products. Current supermarket sales are convenient and RIPTA should better publicize the locations that sell passes.
- RIPTA fare products should be available at tourist destinations (e.g. hotels), the Providence Amtrak Station, at TF Green Airport and on Aquidneck Island.
- Greater use of TVMs would limit use of cash and speed boardings. Suggestions for sites where TVMs might be deployed, include:
 - Gateway Center
 - Providence Amtrak Station
 - TF Green Airport
 - Downtown Pawtucket
 - RI Hospital
 - On CCRI campuses, especially Warwick
 - Other heavily used stops (e.g. Broad Street)

Comments on Fare Policy/Fare Products/Pricing

- In general, riders thought that RIPTA offers too many fare products and the options should be simpler. However, it is important to keep options for monthly passes, and stored electronic values.
- Riders are not in favor of any increase in the base fare, as higher fares would be challenging for those who can least afford them. However, this preference was qualified by several audience members that indicated changes in base fare that are accompanied by other discounts or benefits *may* be acceptable depending on the details.
- There was much dissatisfaction expressed about the inequity of the “one state one rate” policy. Many felt that riders should pay more for longer trips, especially those that operate express. Others felt that a short zone with lower fares should be implemented in Providence.
- A 3-Day pass was mentioned as a possible attractive option to visitors and conventioners.
- Attendees were surprised that an average of 34% of RIPTA trips in 2014 were taken by individuals holding free fare passes. While many indicated their support for providing higher subsidies or free transit for seniors and individuals with disabilities, they related concerns and actual stories about witnessing abuse and fraud. Others felt the policy was unfair to working seniors who must travel during peak times and pay full fare.
- The ideal would be to have more state assistance for RIPTA to support these subsidies. If there is no additional state assistance forthcoming, it is better to have people pay a fare than to have to make service reductions.
- Transfers are not used for continuous one-way journeys as intended, but people use them to run errands and make return trip. Transfer policy is also not uniformly enforced. RIPTA should consider restricting transfers to one trip in the same direction

Comments on Farebox Equipment/On-Board Payment

- Riders indicated it is often agonizing to sit on the bus and watch how long it takes others to pay fares before the trip can continue. Breakdowns are more time-consuming if the bus must wait for a supervisor to come fix the farebox. Yet they also recognize that frequent breakdowns affect RIPTA revenues because fares are not properly collected.
- Most riders at the April meetings expressed interest in more modern fare payment technologies, such as having all products function as tap cards (rather than swipe) and having more options for fare product purchase (credit card, third party retail, etc.)
- The current fareboxes have too many options (swipe, tap, dip) and are confusing to use. This confusion and frequent jams distract drivers.

Comments on Fare Integration

- Riders would be excited about the possibility of regional fare integration with both the MBTA and GATRA. Another rider suggested regional integration should make it easier to make a seamless transit trip between Fall River and Providence, an area served by three

Comments on Potential Future Fare Technology

- Riders saw the benefits in encouraging non-cash payment to speed the boarding process
- Introduction of new technology or efforts to encourage the use of non-cash fare payment should be transitioned in slowly, to help those who do not easily adapt to new technology.
- The use of reloadable transit cards with tap payment technology were of much interest to riders. Many had seen these technologies in use elsewhere.

Survey Results

A series of surveys were conducted at the beginning of this RIPTA Fare Study in order to help understand customer perspectives, as well as front line staff that must assist customers with fare payment and address any related issues. These surveys are attached as appendices to this report and summarized below.

Customer Survey

In April and May 2015, RIPTA conducted customer survey to better understand their perspective on the type of fare products RIPTA makes available, their ease of use and price. The survey was available on-line and was offered directly by RIPTA staff on-board buses and at Kennedy Plaza at select times. A total of 755 surveys were completed. A summary is attached as Appendix A.

Fixed Route Operator Survey

In May and June 2015, RIPTA conducted a survey of fixed route Bus Operators to gain front-line perspective on how customers interact with the farebox while boarding and how fare collection affects the overall service experience. A total of 86 RIPTA Operators responded. A summary is attached as Appendix B.

Paratransit/Flex Operator Survey

In June 2015, RIPTA met with ADA and Flex Operators to gain front-line perspective on how Flex customers interact with the fare box, how fare collection affects the overall service experience. These drivers were also given the opportunity to complete a brief survey and a total of 12 responses were returned. A summary is attached as Appendix C.

State of RIPTA's Fare System / Key Findings

RIPTA's current fare collection system and fare structure has been in place for about eight years. Over that time the state of the fare collection industry has undergone significant change, with improvements in smart card and e-commerce capabilities. RIPTA has taken advantage of some of these changes, using smart card technologies for its U-Pass, Eco-Pass and Senior/Disabled fare programs and implementing on-line fare product sales.

Customers responding to the Transit Fare Survey in the spring of 2015 (see Appendix) appear to be largely satisfied with RIPTA's fare system today. About 78% agreed that RIPTA is a good value, 72% indicated the system is easy to understand and 68% indicated RIPTA offered fare products that meet their needs.

However, there are a number of challenges presented by the current fare system and RIPTA is interested in taking advantage of continued advancements in technology to contain the overall cost of fare collection, maximize the collection of revenue, simplify fare payment and provide increased convenience for their customers.

The following challenges and issues have been identified as opportunities to conduct further analysis and potentially be addressed as part of this fare study.

- **The number of fare products offered is complex and challenging to manage.** The array of options can also introduce confusion at the farebox, where different fare products are handled by “dipping, swiping or tapping.”
- **Customers are interested in new fare payment options.** About 50% of respondents to the spring 2015 customer survey expressed an interest in mobile fare payments and about 60% expressed an interest in on-board credit card payments.
- **Certain RIPTA services are faster or longer than others, and equity should be considered.**
- **The average fare paid by customers has been decreasing as RIPTA's cost per trip has been increasing.**
- **More fare products are now being sold through direct and bulk sales, rather than through consignment.** RIPTA must consider these trends and tradeoffs (e.g. the internal labor needed to manage bulk sales and credit card fees vs. commission fees and the greater availability of fare media at private sales outlets).
- **Ticket Vending Machines will provide new direct sales outlets.** RIPTA must decide which fare products to offer, where to locate these TVMs and whether wider use of these machines should be pursued.
- **Transfers are used for second trips and roundtrips, which decreases revenue.** Furthermore, RIPTA's transfer policy is not always consistently enforced or clear to customers.
- **Different pricing structures are negotiated for various fare programs (U-Pass, Eco-Pass).** RIPTA negotiated different contracts for a number of organizations which is time

consuming and not always equitable. Standard bulk purchase policies should be considered.

- **New State Medicaid rules appear to have shifted many passengers from monthly passes or RhodyTen passes to the Senior/Disabled No Fare program.**
- **More than one in four riders are Senior/Disabled pass holders and pay no fare.** However, the state subsidy to cover the increased peak service requirements of these riders does not cover program costs, which are escalating. RIPTA would like to strengthen eligibility requirements and program oversight, and/or request legislative changes to this state mandated program.
- **Boarding times are slow.** About 14% of customers use cash to pay their fares, and others conduct transactions at the farebox to purchase a transfer or other fare product. These transactions slow passenger boarding and increase the time buses dwell at each bus stop, ultimately requiring additional resources to operate service.
- **Fare equipment has a high failure rate.** The current GFI farebox system is prone to frequent mechanical breakdowns affecting service and the collection of revenue while simultaneously resulting in increased maintenance costs. Trim units incorporate a series of delicate moving parts and may be overtaxed by the sheer number of daily transactions. Nearly 30% of customers surveyed disagreed that the farebox is always working when they board the bus and about 55% of drivers indicated farebox failures prevent fare collection on a regular basis. RIPTA wishes to consider alternatives to reduce and potentially eliminate the number of Trim unit transactions.
- **RIPTA's Ride program accepts only cash and Riptiks for fare payment.** This program should be integrated as part of any future upgrade of the fare payment system to offer these customers more fare payment options.
- **The fare products offered are not integrated with the MBTA, GATRA or other regional transit providers.** Yet RIPTA services interact with these regional services at a number of different locations throughout the state, and many riders transfer between systems. About 34% of RIPTA riders responding to the Transit Fare Study survey indicated they use other regional transit services on a regular basis.

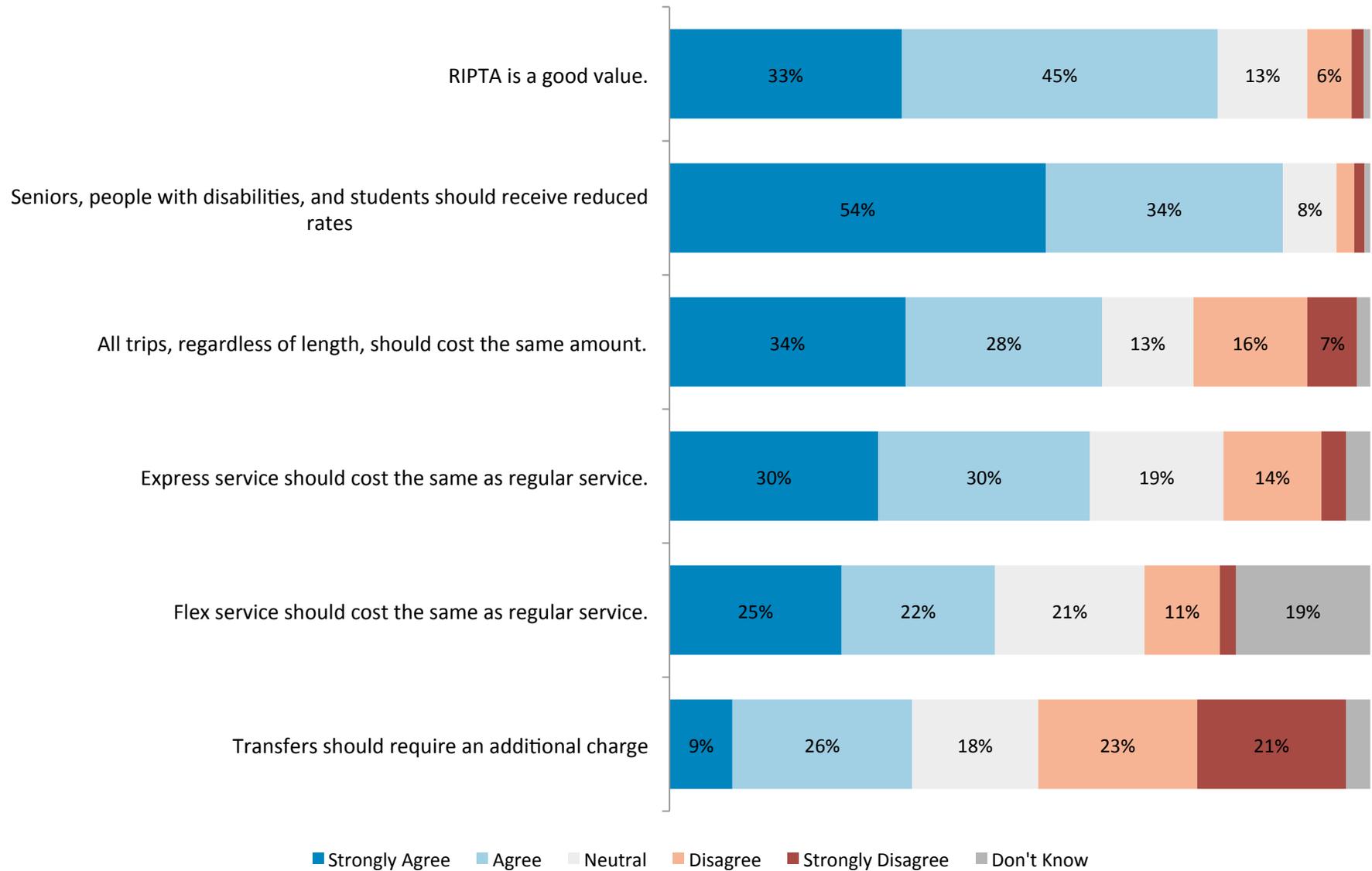
Appendix A

Summary Results from Customer Survey on Fares

April – May 2015

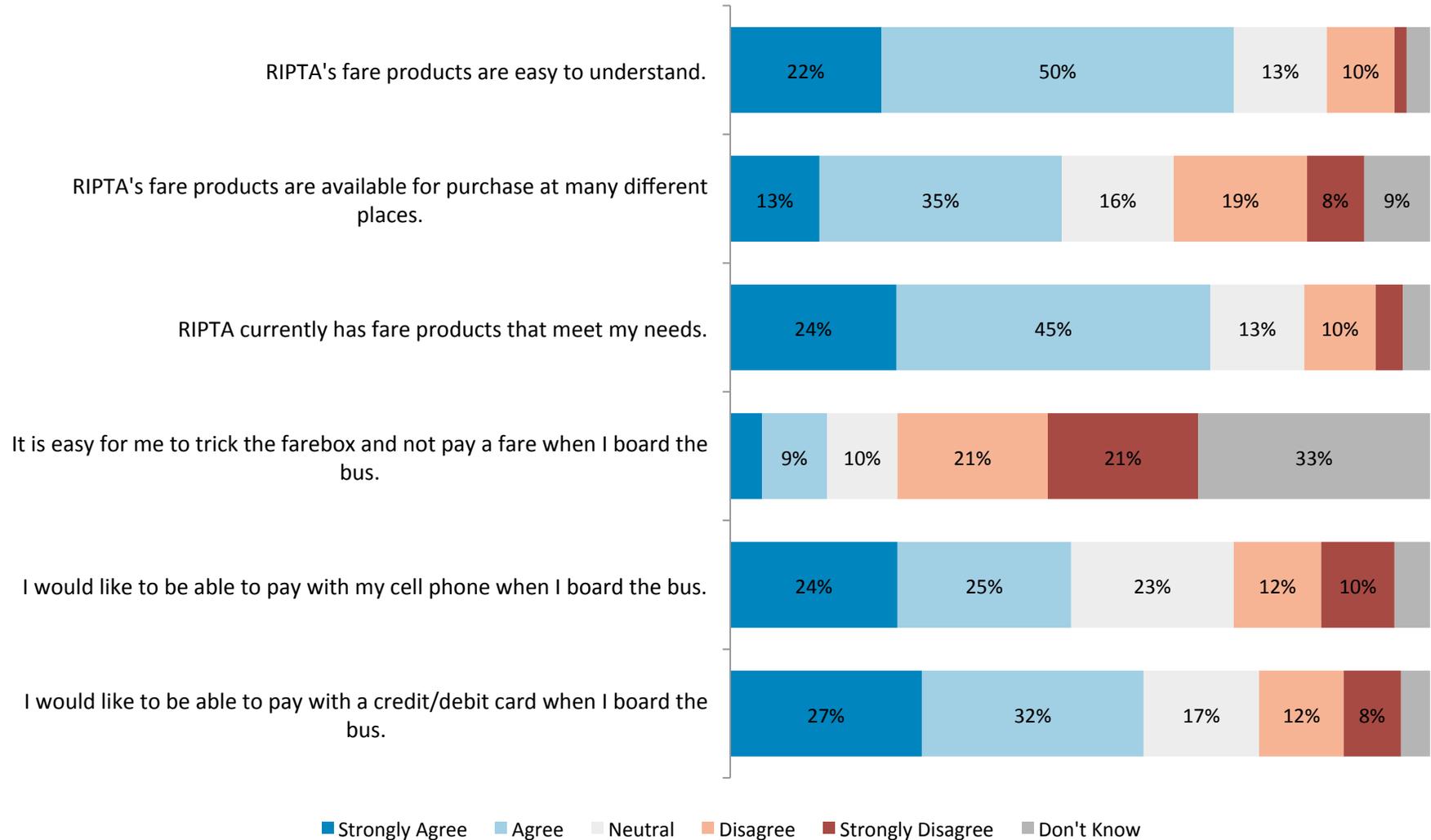
Opinions about RIPTA Fare Pricing

Survey of 745 Passengers, Spring 2015



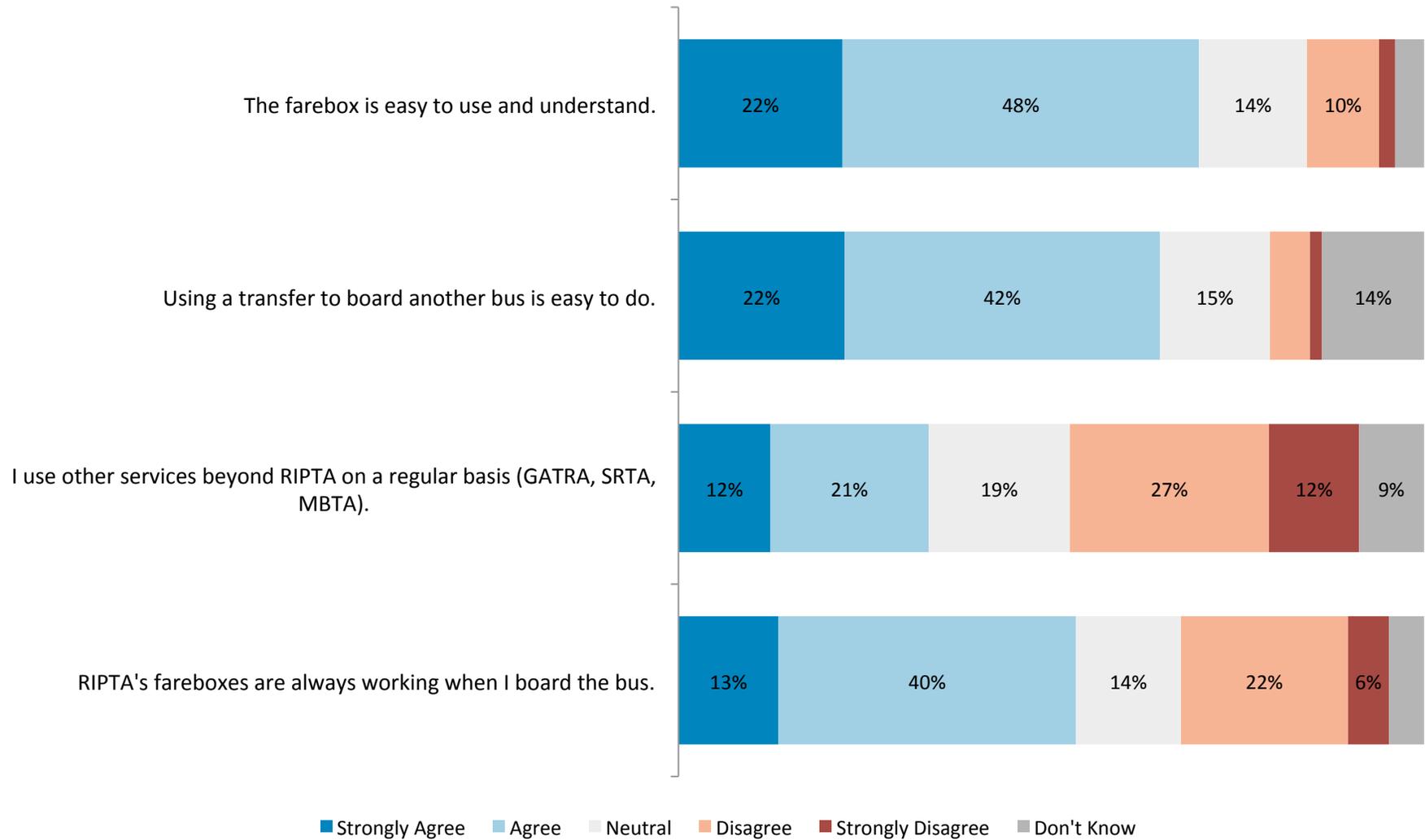
Opinions about RIPTA Fare Products

Survey of 745 Passengers, Spring 2015



Opinions about RIPTA Fares: Ease of Use

Survey of 745 Passengers, Spring 2015



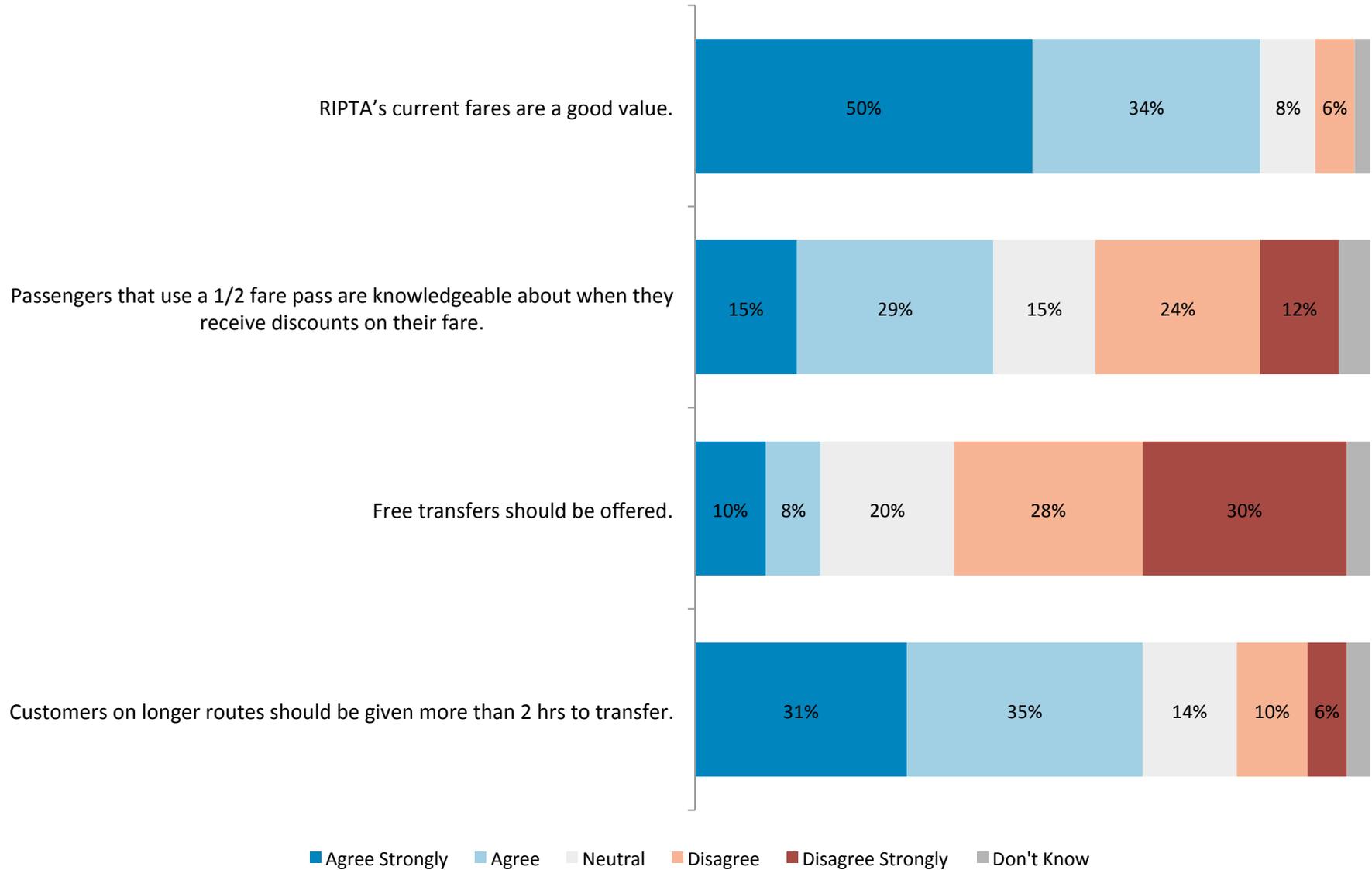
Appendix B

Summary Results from Bus Operator Survey on Fares

May – June 2015

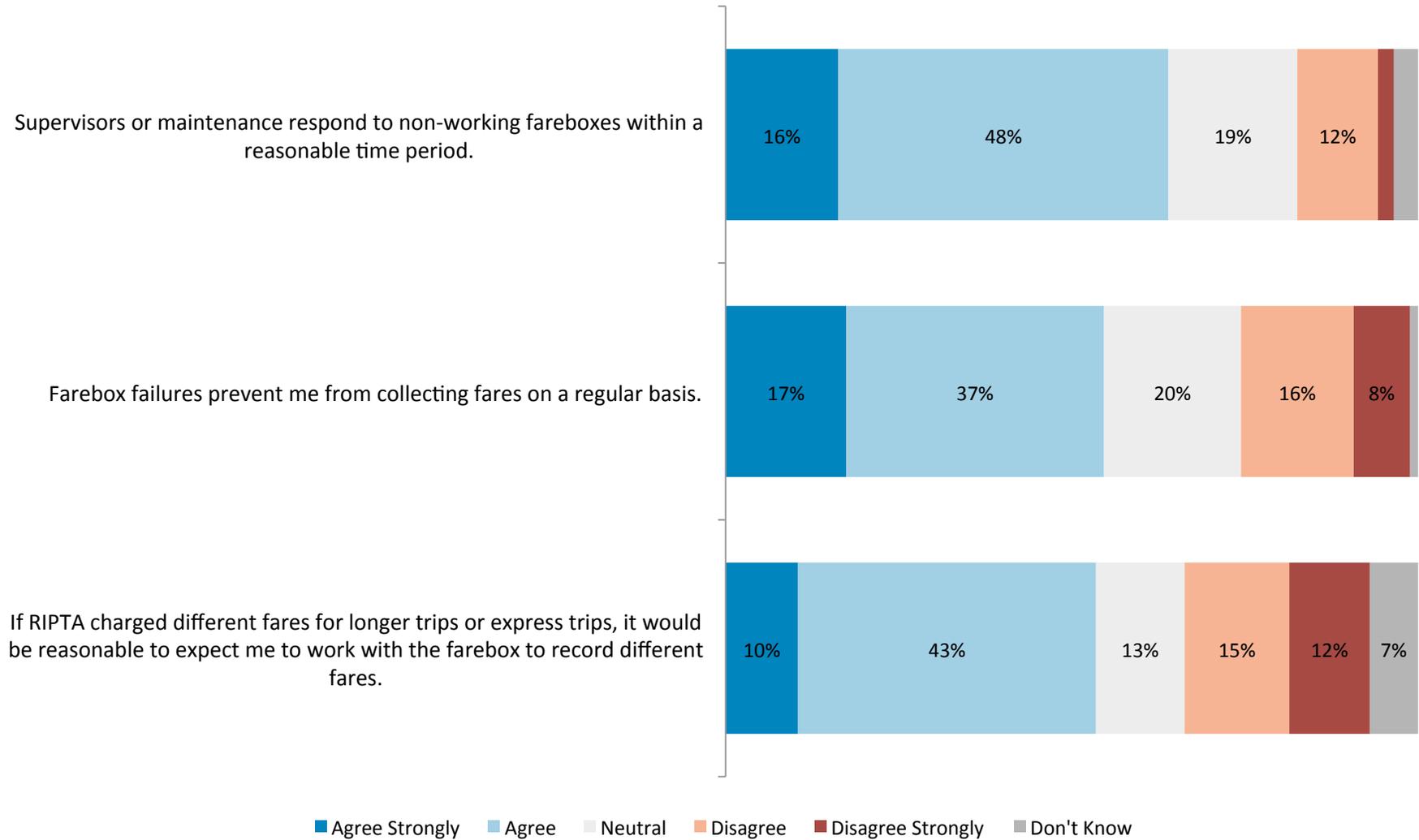
Opinions about RIPTA Fare Pricing

Survey of 86 Fixed-Route Drivers, Spring 2015



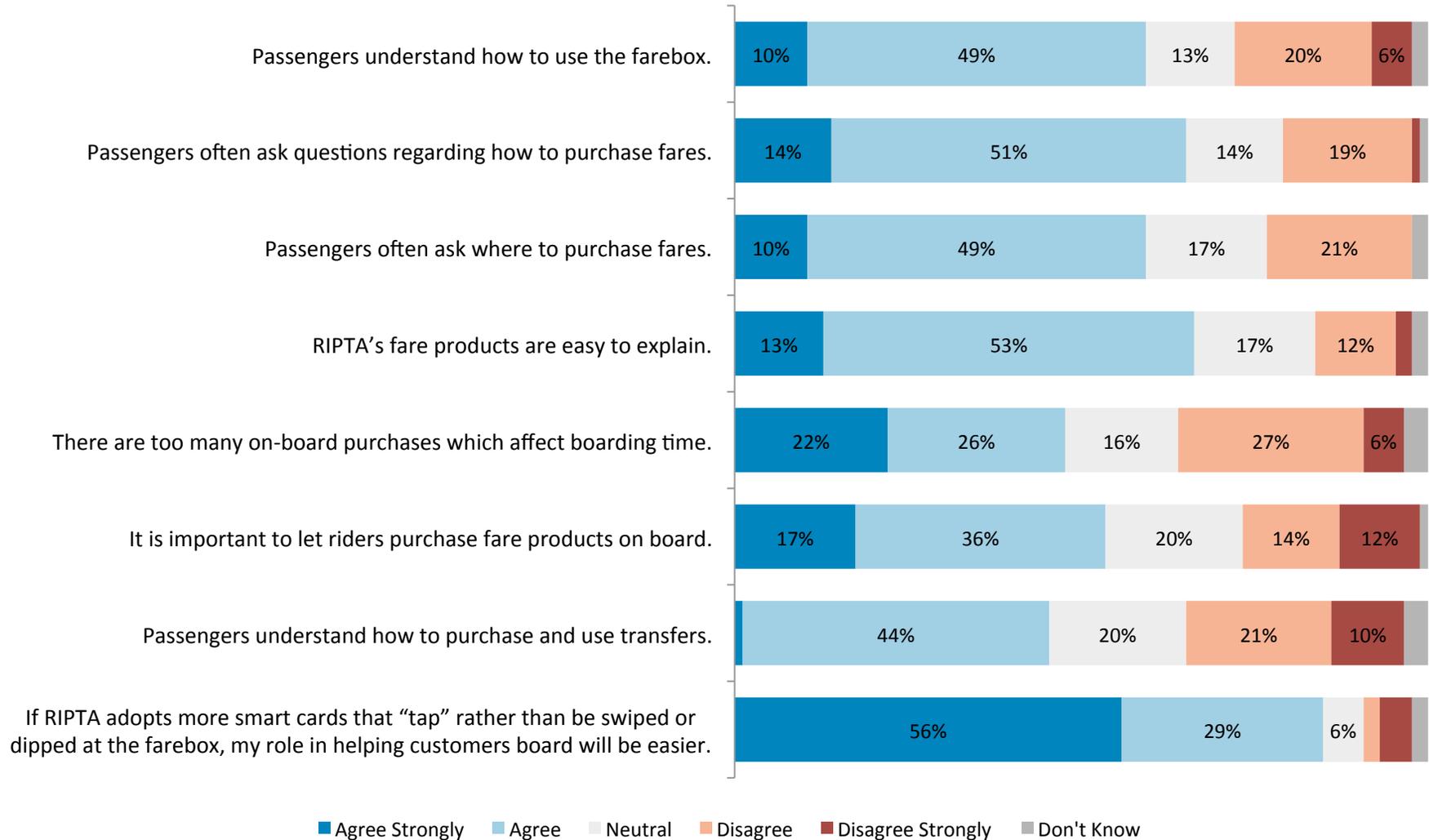
Opinions about RIPTA Fare Products and Equipment

Survey of 86 Fixed-Route Drivers, Spring 2015



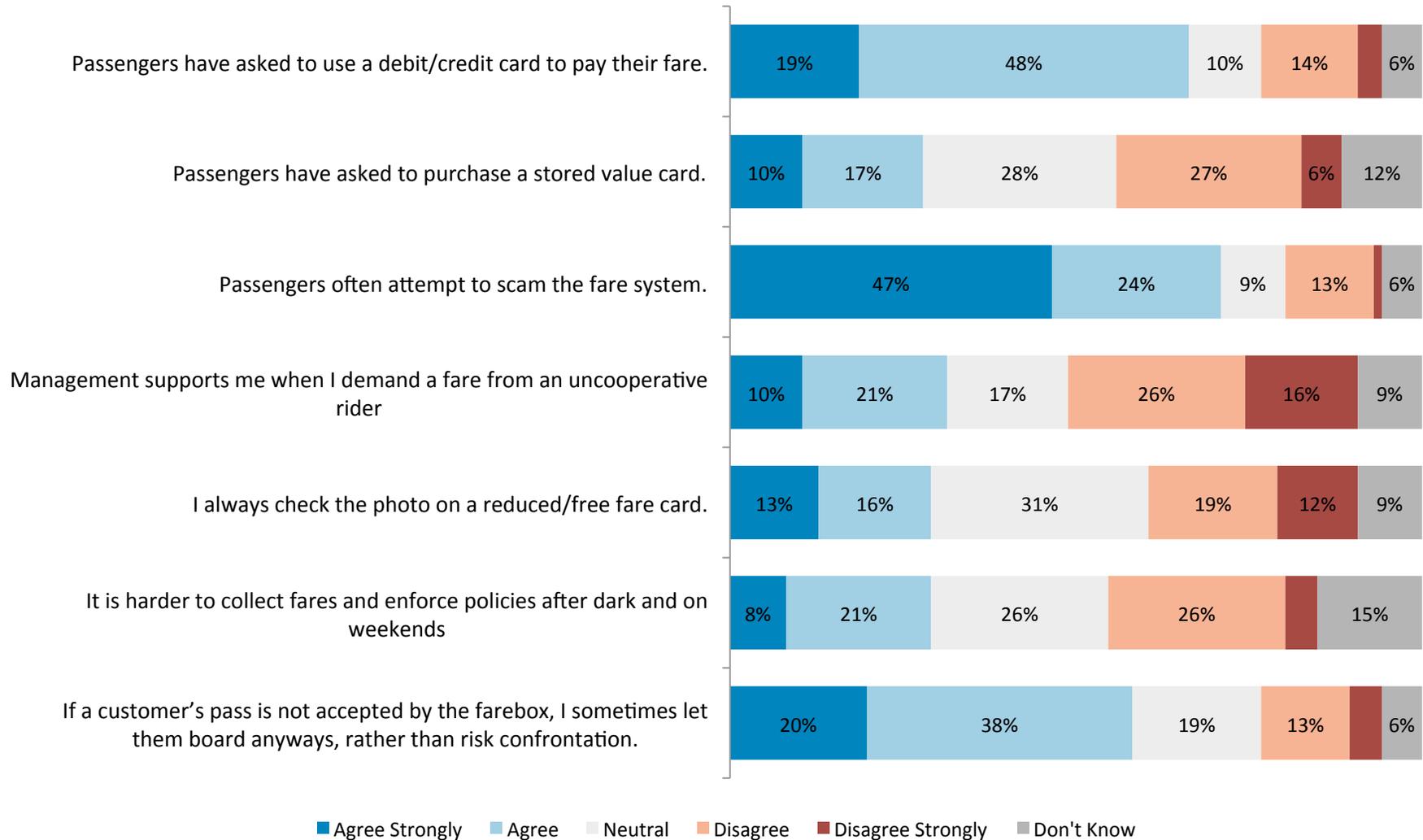
Opinions about RIPTA Fares: Ease of Use

Survey of 86 Fixed-Route Drivers, Spring 2015



Opinions about RIPTA Fares: Passenger Interactions

Survey of 86 Fixed-Route Drivers, Spring 2015



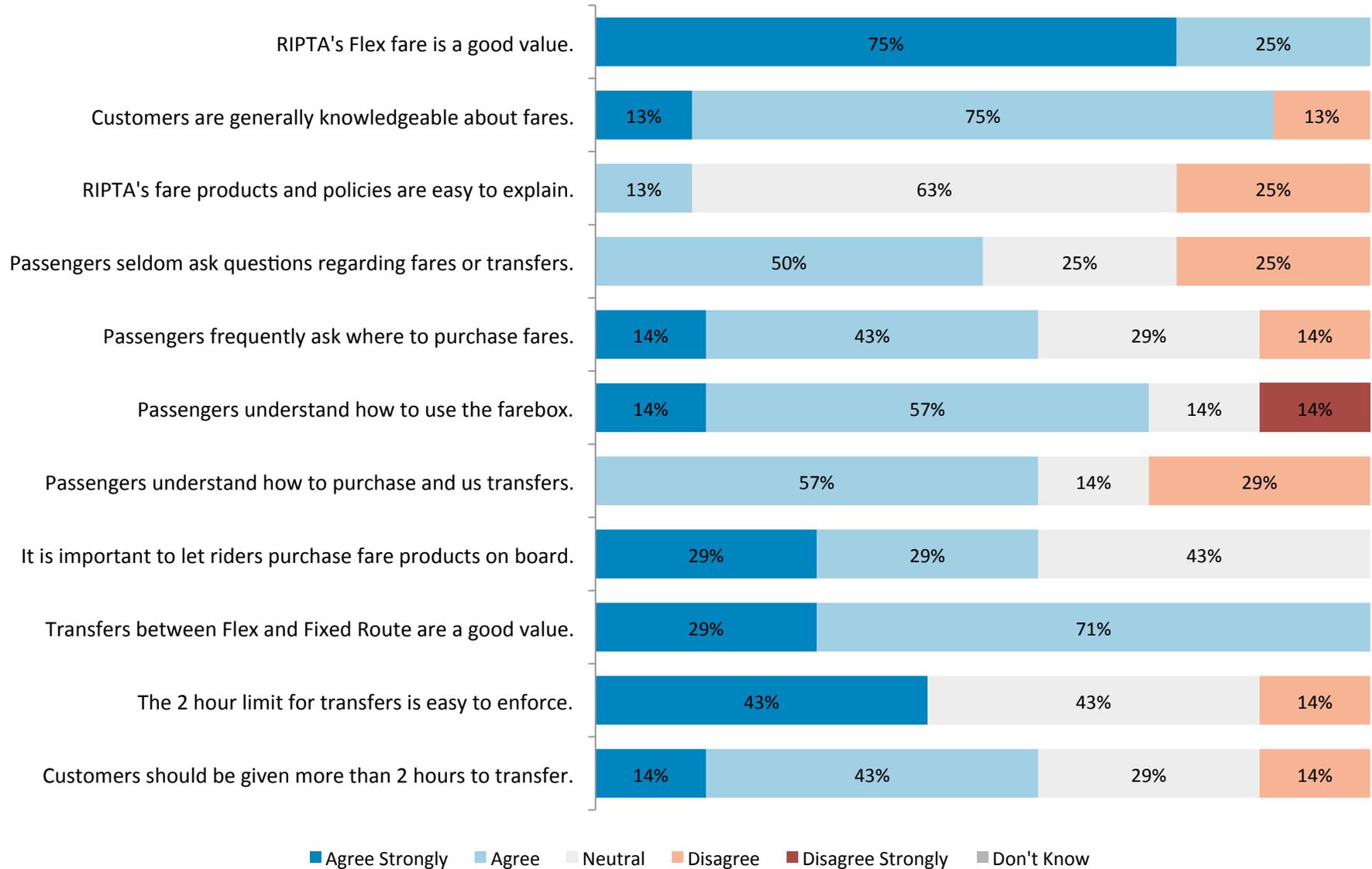
Appendix C

Summary Results from Flex/ADA Operator Survey on Fares

June 2015

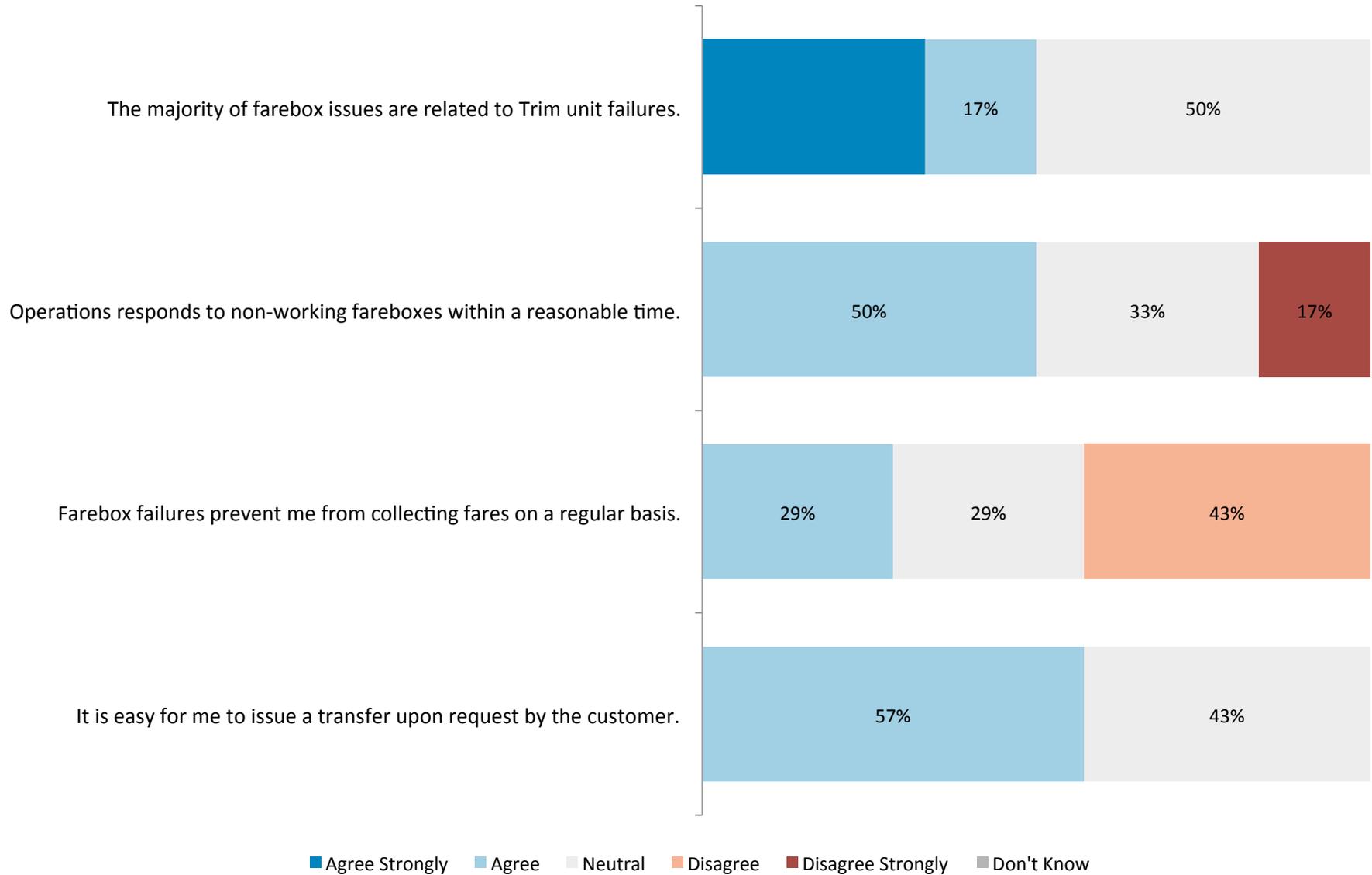
Opinions about RIPTA Flex Fares/Ease of Use

Survey of 8 Flex/Paratransit Operators, Spring 2015



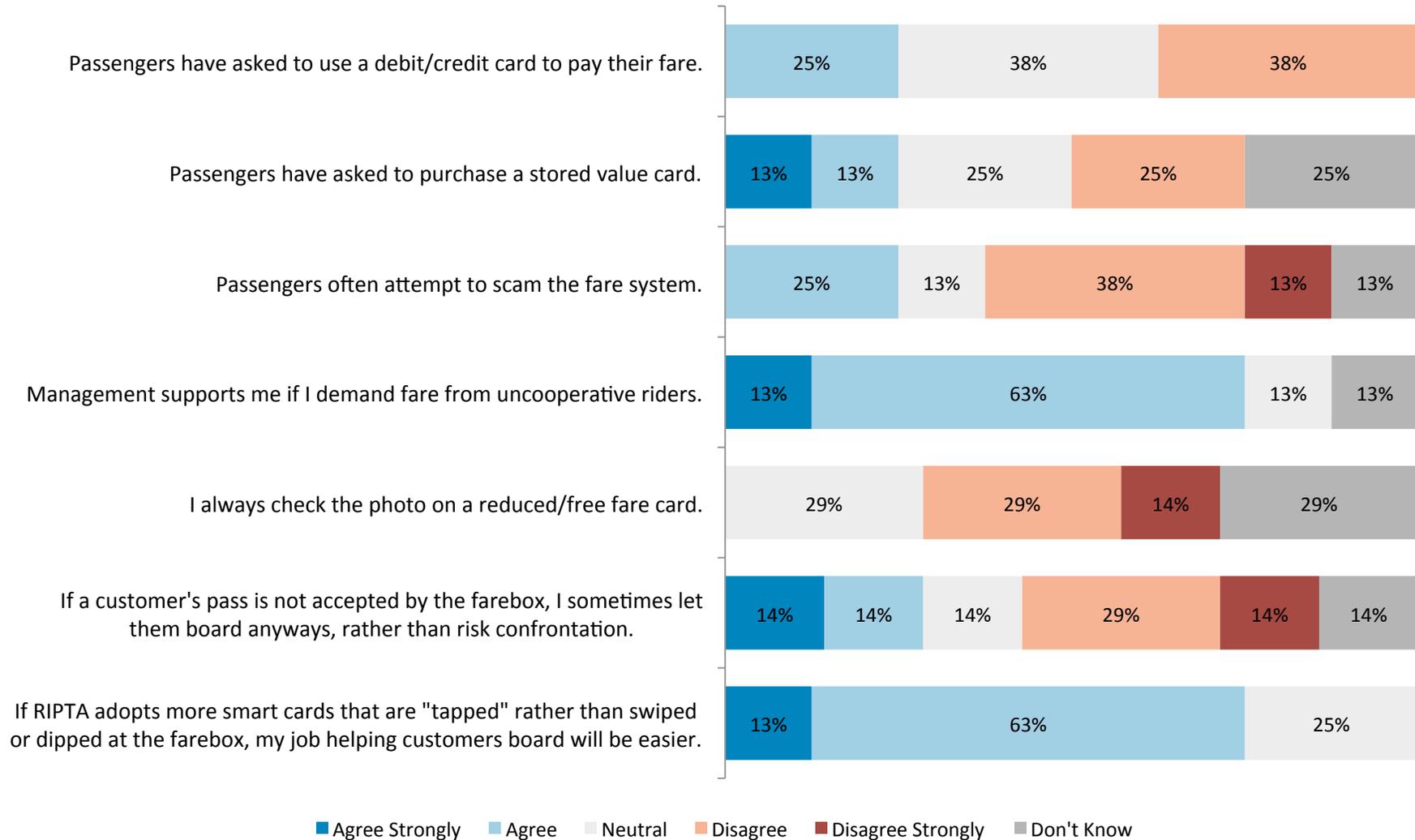
Opinions about RIPTA Flex Fare Collection Equipment

Survey of 7 Flex/Paratransit Operators, Spring 2015



Opinions about RIPTA Flex Fares: Passenger Interaction

Survey of 8 Flex/Paratransit Operators, Spring 2015



Opinions about RIPTA Paratransit Fare Payment

Survey of 12 Flex/Paratransit Operators, Spring 2015

