



## Board Report

File #: 2018-0560, File Type: Informational Report

Agenda Number: 7.

### AD HOC CONGESTION, HIGHWAYS AND ROADS COMMITTEE OCTOBER 17, 2018

**SUBJECT: METRO EXPRESSLANES FISCAL YEAR 2018 OPERATIONS PERFORMANCE REPORT**

**ACTION: RECEIVE AND FILE**

#### **RECOMMENDATION**

RECEIVE AND FILE the FY2018 Operations Performance Report (Attachment A) for the Metro ExpressLanes.

#### **ISSUE**

In order to monitor performance and ensure key performance goals are met, Metro ExpressLanes performance metrics are monitored on a continual basis. This report provides an update on the performance of the Metro ExpressLanes for FY 2018.

#### **DISCUSSION**

Since the inception of the ExpressLanes, more than 195 million trips have been taken on the ExpressLanes (125.4 million on the I-110 and 69.9 million on the I-10). A total of 702,500 accounts have been opened, including 17,049 Low-Income-Assistance-Plan accounts.

Attachment A provides a detailed summary of the program's performance for Metro's Fiscal Year 2018 (July 1, 2017 to June 30, 2018). The following are highlights of the Metro ExpressLanes performance based upon data through June 30, 2018:

- For the full length of each of the corridors, the average monthly speed exceeds 45 miles per hour (mph):
  - I-110 ExpressLanes average AM peak-period travel speeds were 52 mph, saving up to an average of 13 minutes compared to the GP lanes.
  - I-10 ExpressLanes average AM peak-period travel speeds were 53 mph, saving up to an average of 14 minutes compared to the GP lanes.
- 42.2 million vehicle trips were taken in the ExpressLanes in FY18, an increase of 2% compared to FY17.
- 151,783 transponders were issued in FY18, nearly unchanged compared to FY17.
- Total Low Income Assistance Plan accounts increased by 20% in FY18 over FY17 to a total of 17,049 accounts.

## 2018 Customer Survey Results

Metro ExpressLanes 2018 Customer Survey gathered feedback as part of Metro ExpressLanes' ongoing efforts to improve customer experience. The survey was sent to all Metro ExpressLanes customers with a valid email on file. In FY18 a total of 81,748 customers responded to the survey, a 76% increase over FY17.

Key findings from the survey:

- 82% of survey respondents were satisfied/very satisfied with Metro ExpressLanes customer service.
- 90% of ExpressLanes users are satisfied with the amount of time saved relative to the toll paid; a 10% increase over FY17.
- 89% of ExpressLanes users are satisfied/very satisfied with the speed maintained on the ExpressLanes.
- More than 75% of respondents would support Metro ExpressLanes projects on additional LA county roadways.
- 68% of survey respondents ranked the expansion of ExpressLanes onto other corridors as an important/very important way to mitigate traffic in LA County.

## HOV Only Status and Travel Speeds the AM Peak Period

The ExpressLanes are operated on dynamic pricing principles designed to maintain travel speeds at or above 45mph. When vehicle travel speeds fall below 45 mph on a segment of the lanes, the lanes go into HOV Only status which means Single Occupant Vehicles (SOVs) are prohibited from entering the lanes at that segment to help alleviate the congestion and raise the speeds.

In FY 2018, the I-110 was in HOV Only status a total of 20,583 minutes during the AM peak period. This is a 5.8% decrease compared to FY17. Comparatively, the I-10 was in HOV Only status a total of 3,314 minutes, a 14% decrease from FY17. HOV Only minutes decreased in FY18 due to refinements made to the pricing algorithm and increases to the maximum toll-per-mile charge. These changes were implemented to minimize adverse impacts to travel speeds despite increases in ExpressLanes trips.

## Five Year Anniversary of the METRO EXPRESSLANES

In FY18 the ExpressLanes celebrated 5 years of operations on the I-110 (opened November 10, 2012) and I-10 (opened February 23, 2013). A series of customer appreciation events took place to celebrate the program's success:

- All Low Income Assistance Plan customers received a \$10 toll credit
- Toll credits were given to the first five customers that opened a Metro ExpressLanes account, the first five customers who enrolled in a low income assistance plan, the first five carpoolers, and the first five customers that signed up for the Transit Rewards program
- Metro ExpressLanes marketing giveaways were provided to transit riders at the Harbor Gateway Transit Station (November 6-9, 2017) and El Monte Station (February 20-23, 2018).

**IMPLEMENTATION OF STRATEGIC PLAN GOALS**

The FY18 Metro ExpressLanes Performance report aligns with Strategic Goal 1: Provide high-quality mobility options that enable people to spend less time traveling. ExpressLanes provide drivers with the option of a more reliable trip while improving the overall operational efficiency of the freeway network. The annual review and monitoring of the ExpressLanes program through performance evaluation and customer surveys informs staff's efforts toward ongoing program improvements.

**ALTERNATIVES CONSIDERED**

The Board could elect not to receive the performance report. This is not recommended since the performance report represents an industry best practice in providing information to the governing body.

**NEXT STEPS**

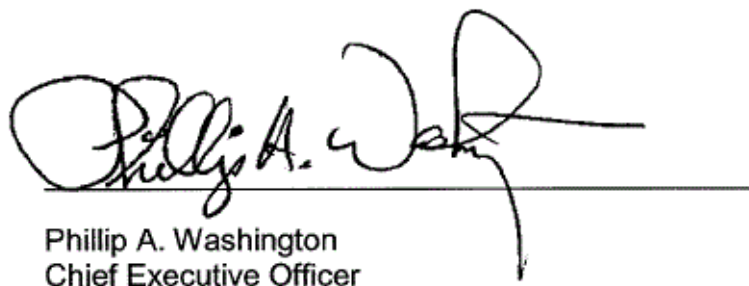
Staff will return to the Board next year with the next performance report and will continue work on implementing the operational improvements listed in the report.

**ATTACHMENTS**

Attachment A - Metro ExpressLanes Performance Report: Fiscal Year 2018

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Phillip A. Washington  
Chief Executive Officer

# METRO EXPRESSLANES

Operations Performance Report

FISCAL YEAR 2018  
(ENDING JUNE 30, 2018)



Metro®

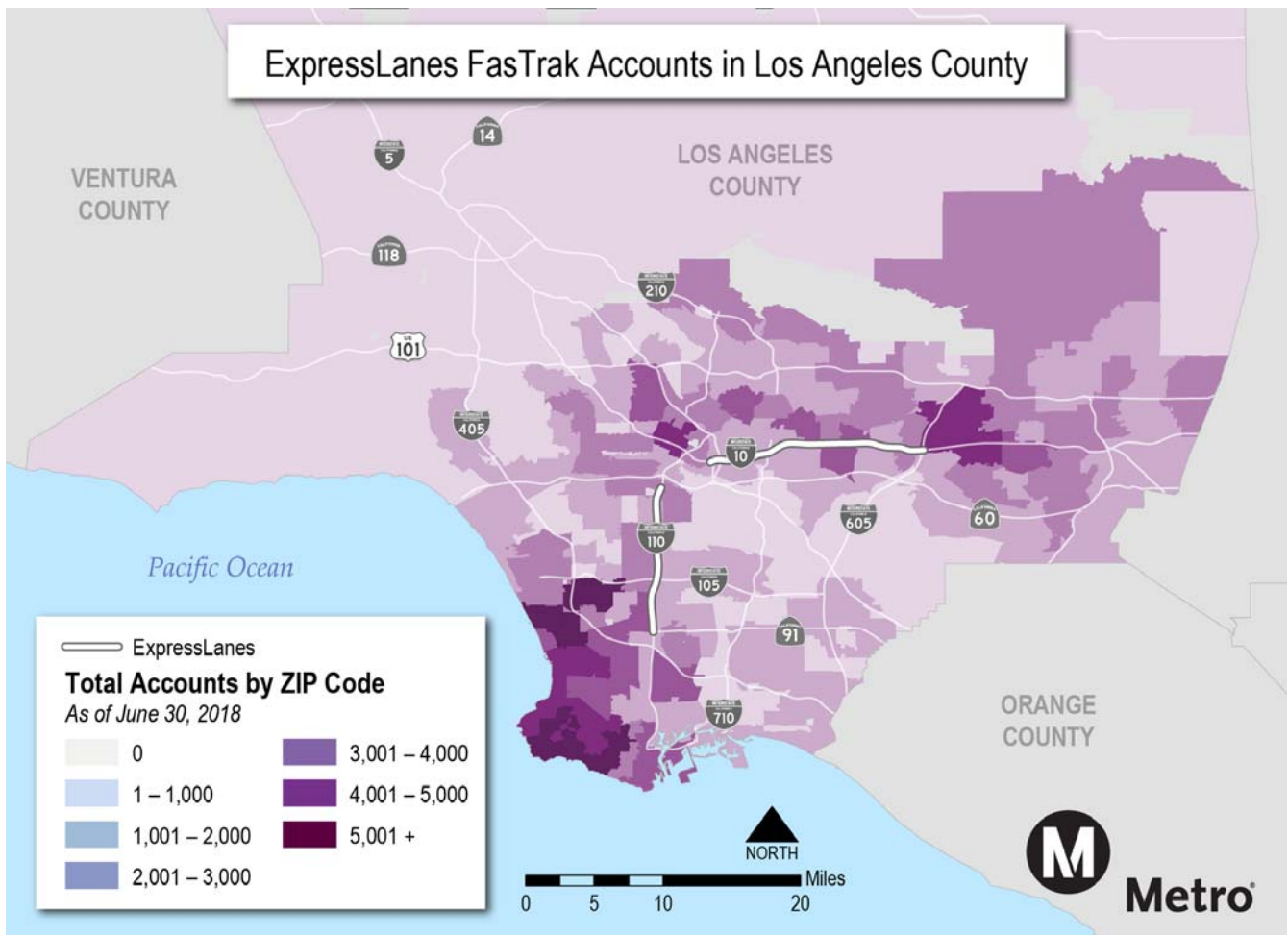


## Program Highlights

### Operational Totals through June 30, 2018

<b>TOTAL VEHICLE TRIPS</b>		<b>195,331,723</b>
	I-110 TRIPS: 125,407,606	I-10 TRIPS: 69,924,117
<b>TOTAL ACCOUNTS OPENED</b>		<b>702,500</b>
	LOW-INCOME ASSISTANCE PLAN ACCOUNTS	17,049
	TAP REWARDS REGISTERED ACCOUNTS	18,384
<b>TOTAL TRANSPONDERS ISSUED</b>		<b>872,966</b>

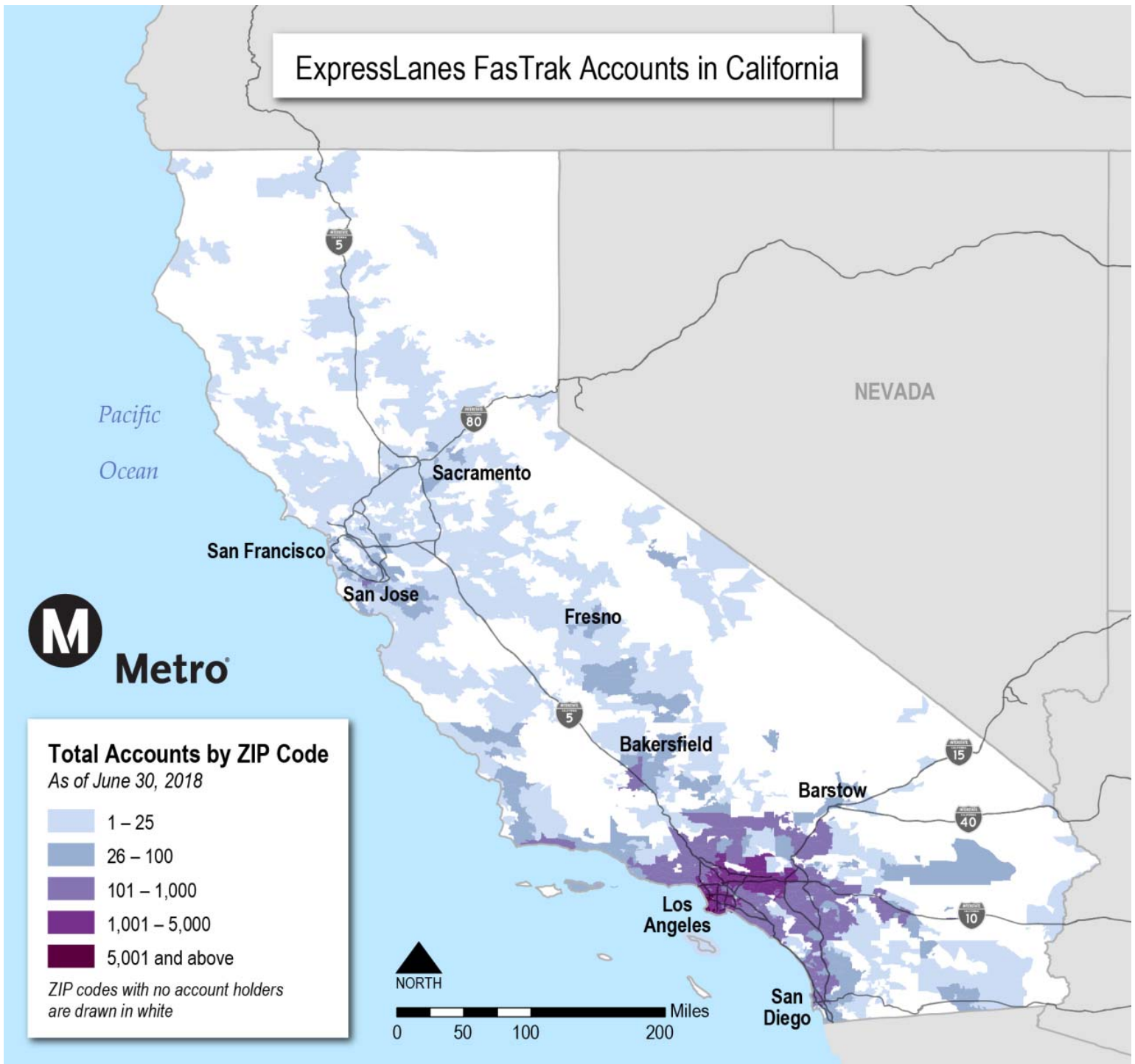
## ExpressLanes Customers in Los Angeles County





## ExpressLanes Customers in California

ExpressLanes FasTrak Accounts in California

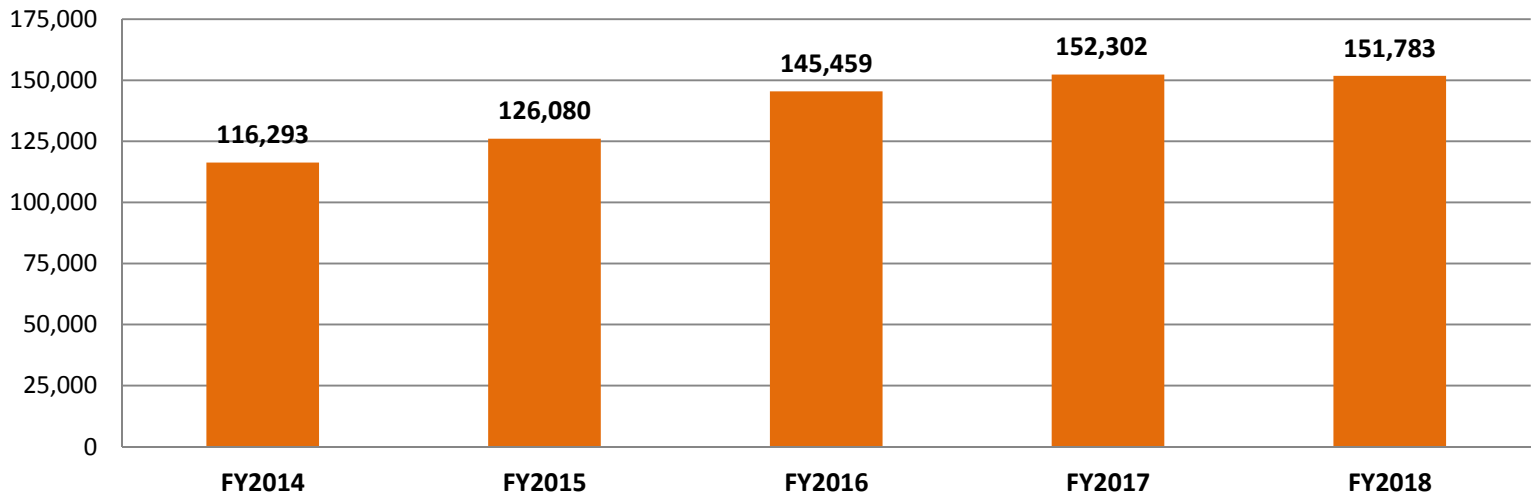




## FasTrak® Transponder Adoption

The demand for Metro ExpressLanes FasTrak® transponders continues to grow. A total of 872,966 transponders have been issued through June 30, 2018 and a total of 702,500 accounts have been opened. In 2018, transponder adoption was at the second highest level in the 5 full years of operations.

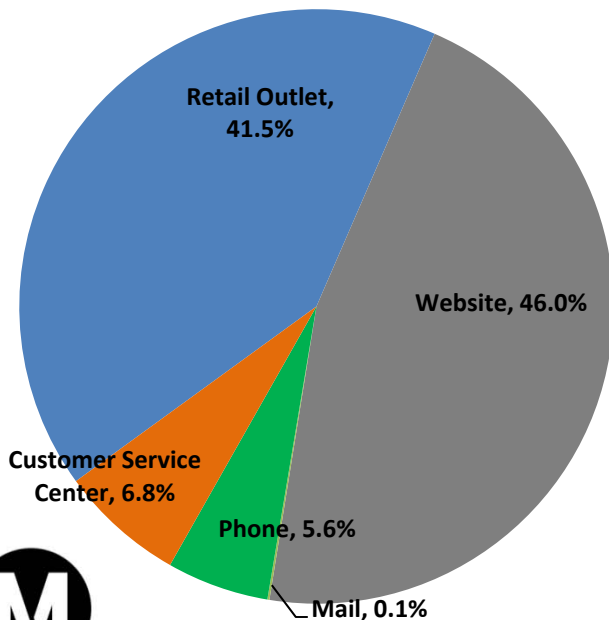
### Newly Issued FasTrak® Transponders



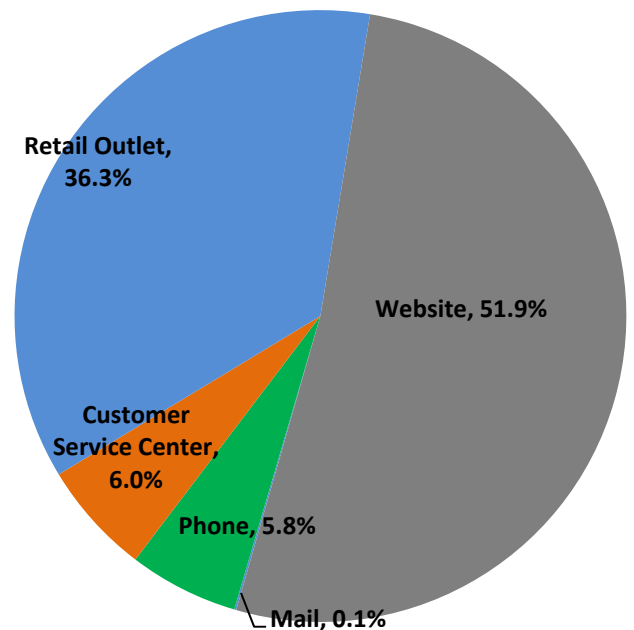
## Account Opening Channel

In FY18 our website, metroexpresslanes.net, was the largest channel for transponder distribution, followed by our retail partners. Customers can purchase a FasTrak® transponder at participating AAA, Costco, and Albertsons locations in Los Angeles County. Account openings on the web saw an increase from 2017 to 2018, with almost 52% of accounts opened on the website.

### FY17 Accounts Opened by Channel



### FY18 Accounts Opened by Channel



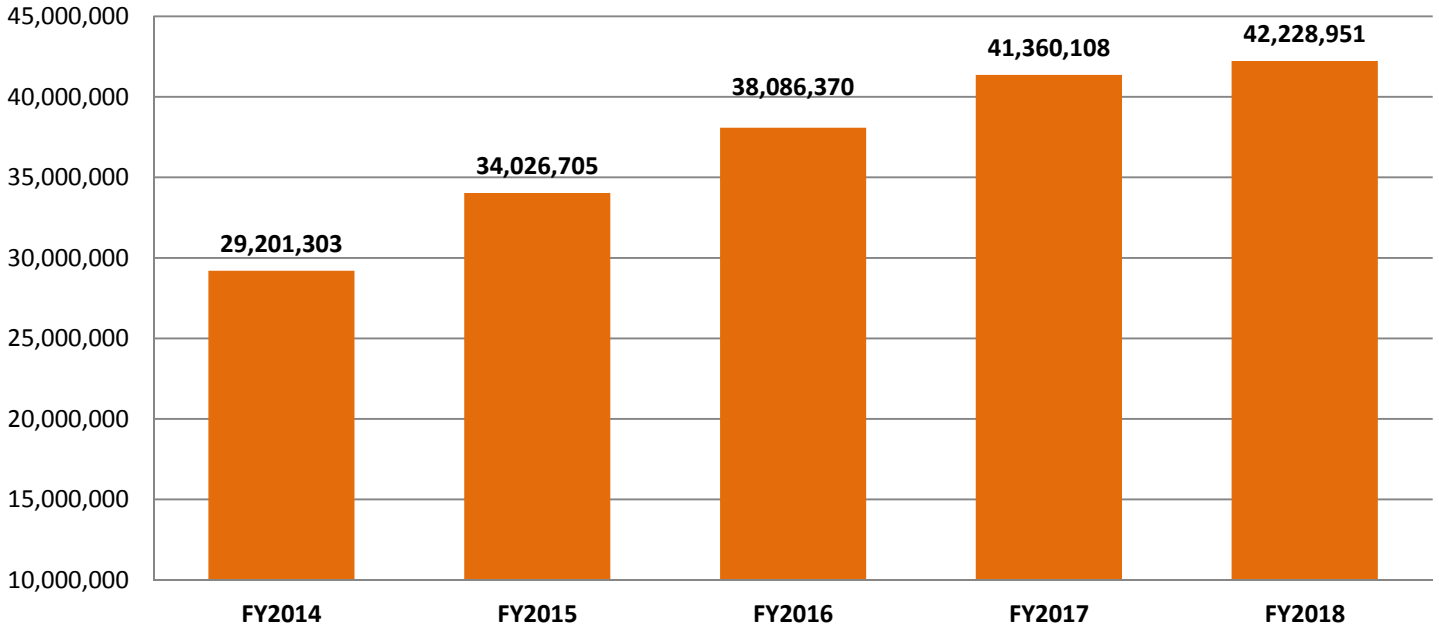
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## ExpressLanes Trips

Vehicle trips on the ExpressLanes increased by 2.1% in FY18 compared to FY17. A total of 195,331,723 trips have been taken on the ExpressLanes from opening November 10, 2012 through June 30, 2018.

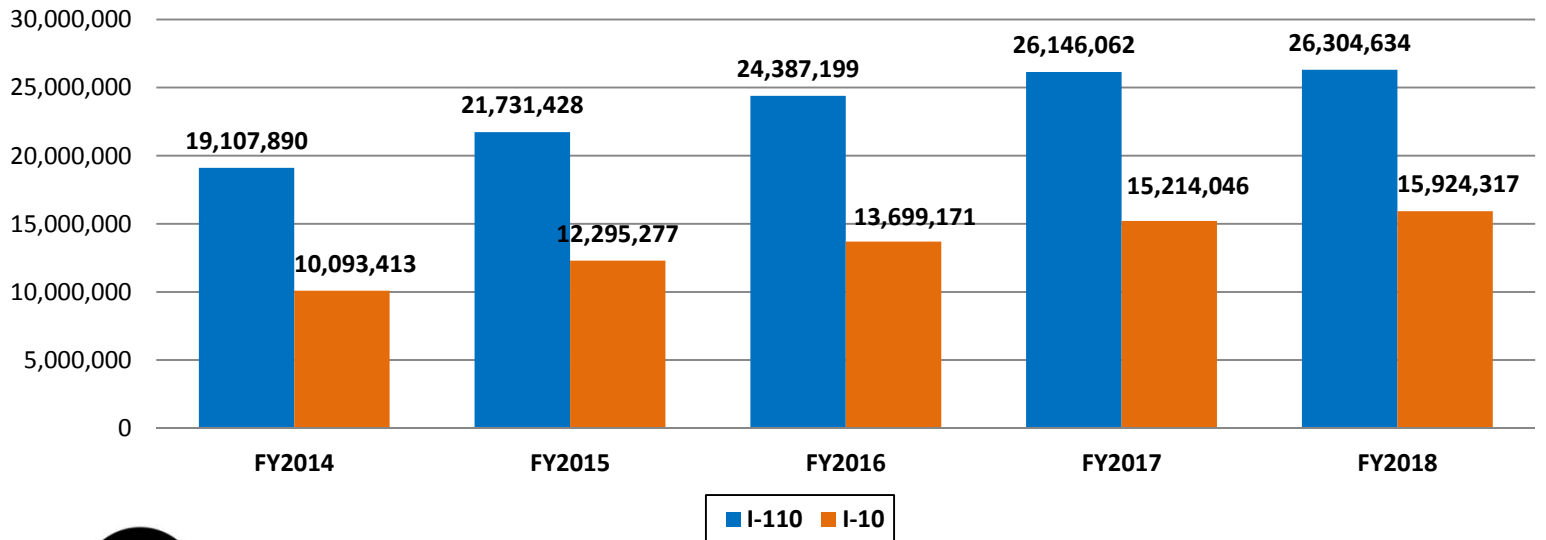
### Total ExpressLanes Trips by Year



## Trips by Corridor

The I-110 corridor continues to have higher trip volumes than the I-10 corridor. However, I-110 trips only increased by .61% in FY18 compared to a 4.67% increase on the I-10 corridor.

### ExpressLanes Trips by Corridor



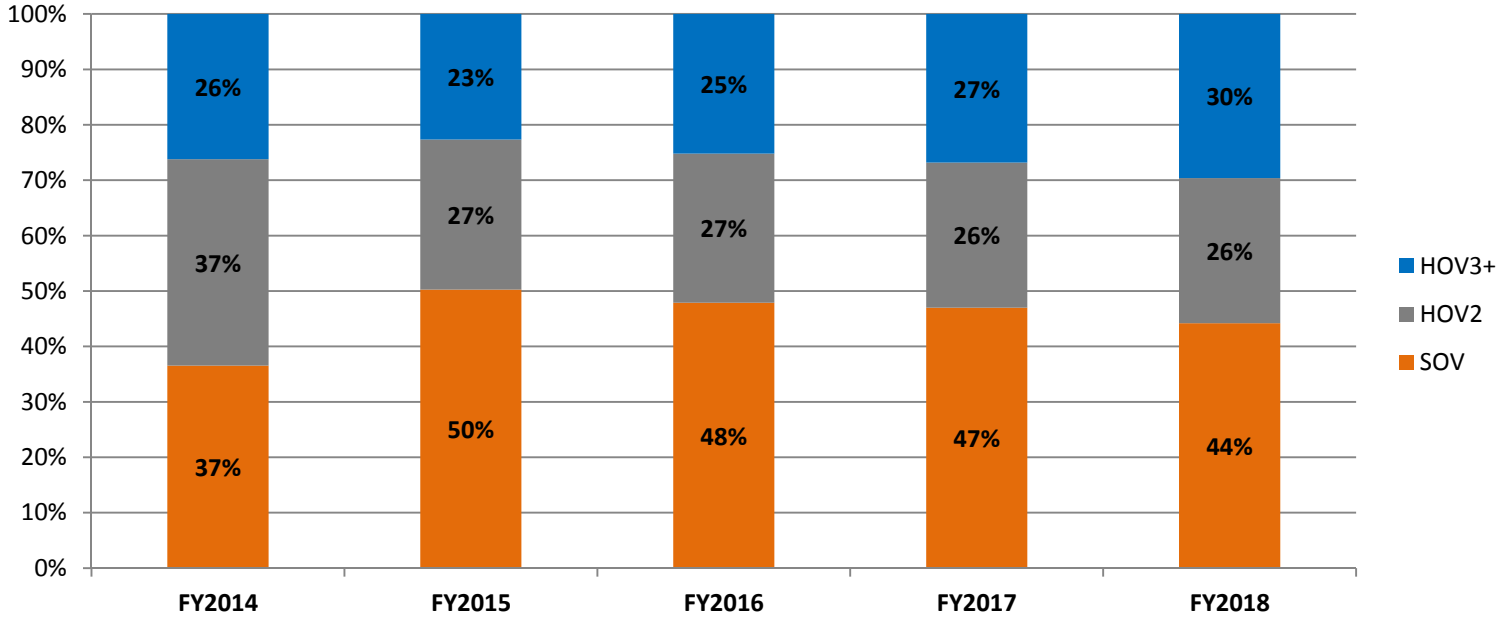




## Mode Split

In FY18 HOV2 and HOV3+ continued to slightly increase over Single Occupant (SOV) trips.

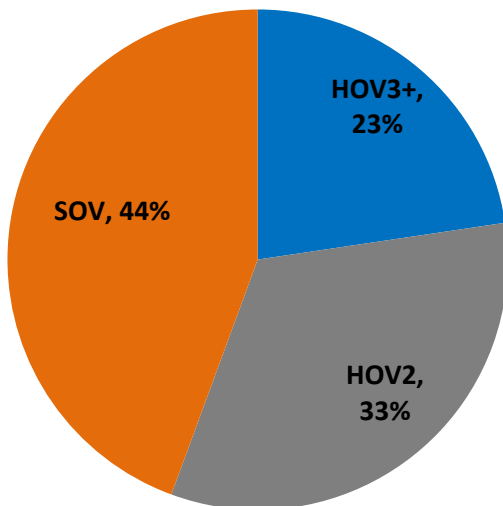
### ExpressLanes Occupancy Split by Year



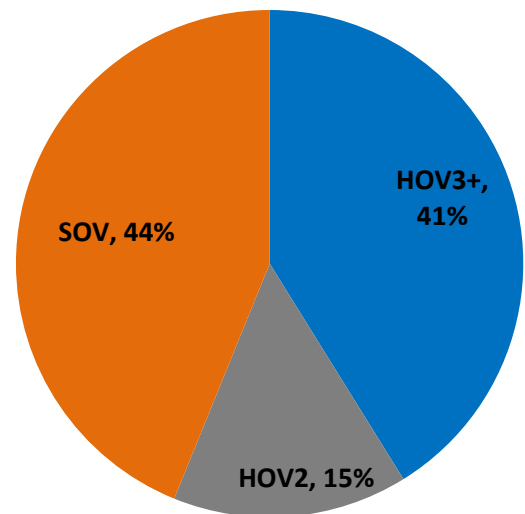
## Mode Split by Corridor

The I-110 corridor has a significantly lower percentage of HOV3+ trips than the I-10 corridor. This is most likely due to the toll free status of HOV2 customers on the I-110 at all times compared to the HOV2 customers paying a toll during AM and PM peak times on the I-10.

### I-110 FY18 Occupancy Split



### I-10 FY18 Occupancy Split

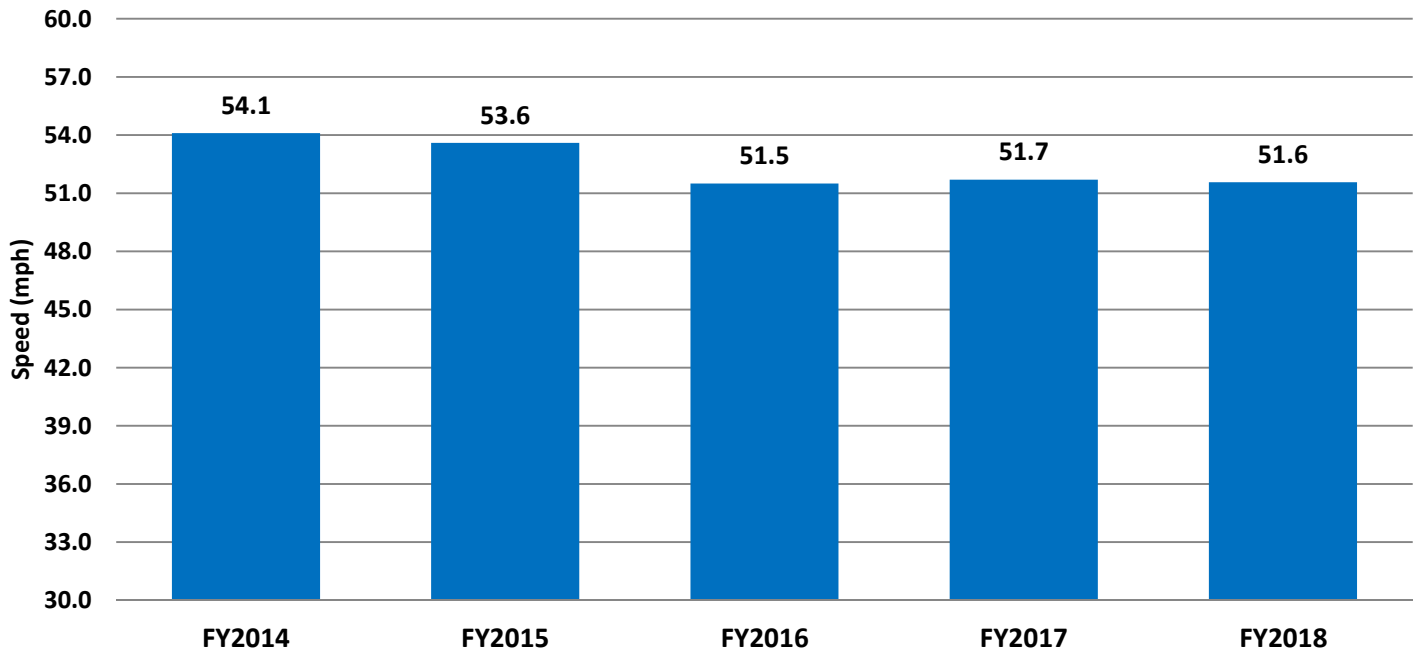




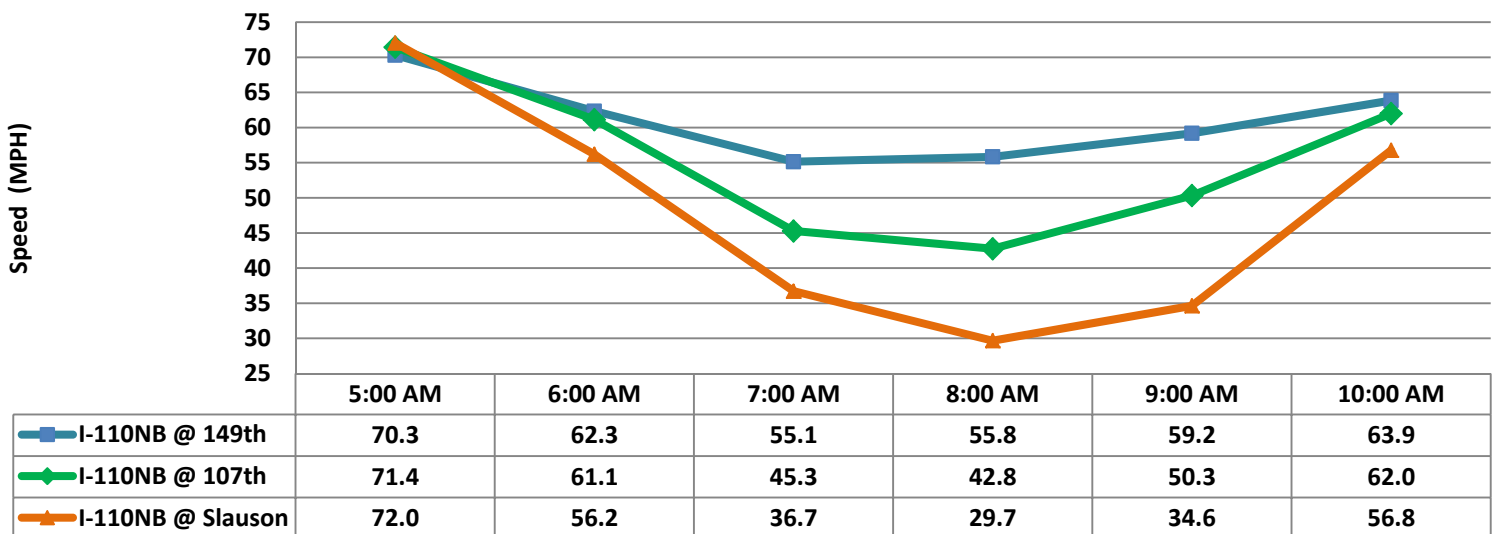
## I-110 ExpressLanes Average Travel Speeds During Morning Peak

Average travel speeds during the year have remained above 45mph for the entire AM peak period. In FY18, speeds remained relatively unchanged from FY17 on the I-110 northbound. However, average speeds fluctuated during the morning peak depending upon the location and time. The number of vehicles in the ExpressLanes increases closer to downtown Los Angeles and between the hours of 7:00 AM and 9:00 AM causing speeds to decrease. In FY18, speeds were slowest near Slauson Avenue around 8:00 AM.

### I-110NB Average Travel Speeds - AM Peak



### FY18 Average I-110NB AM Peak Speeds by Time and Location

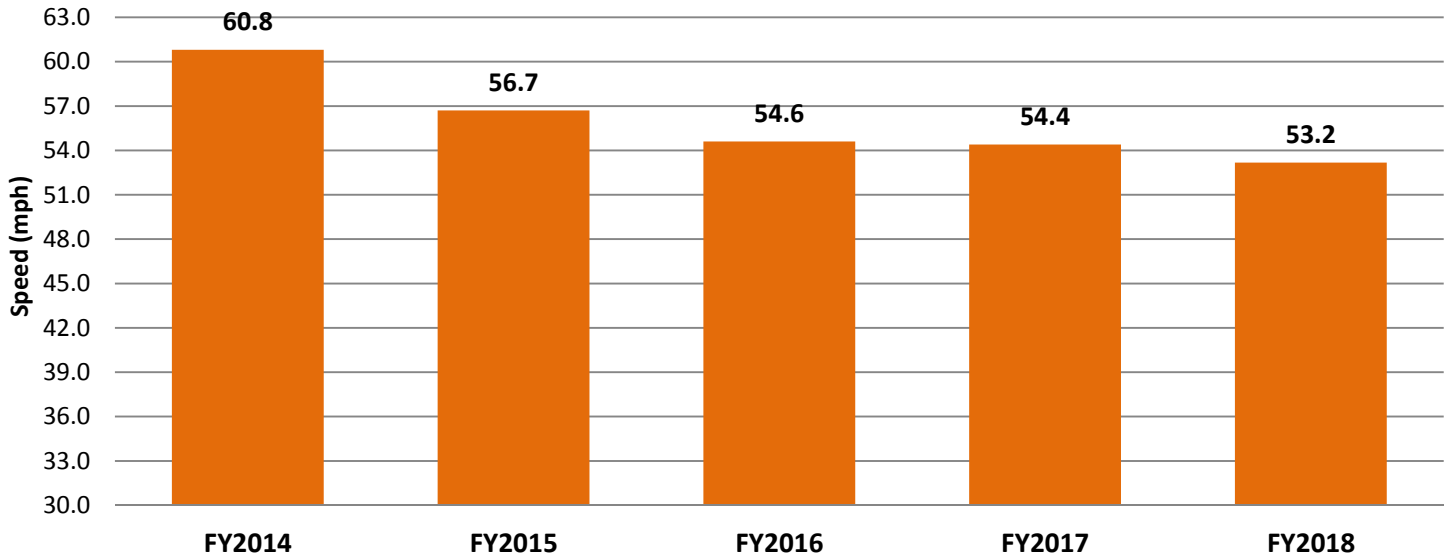




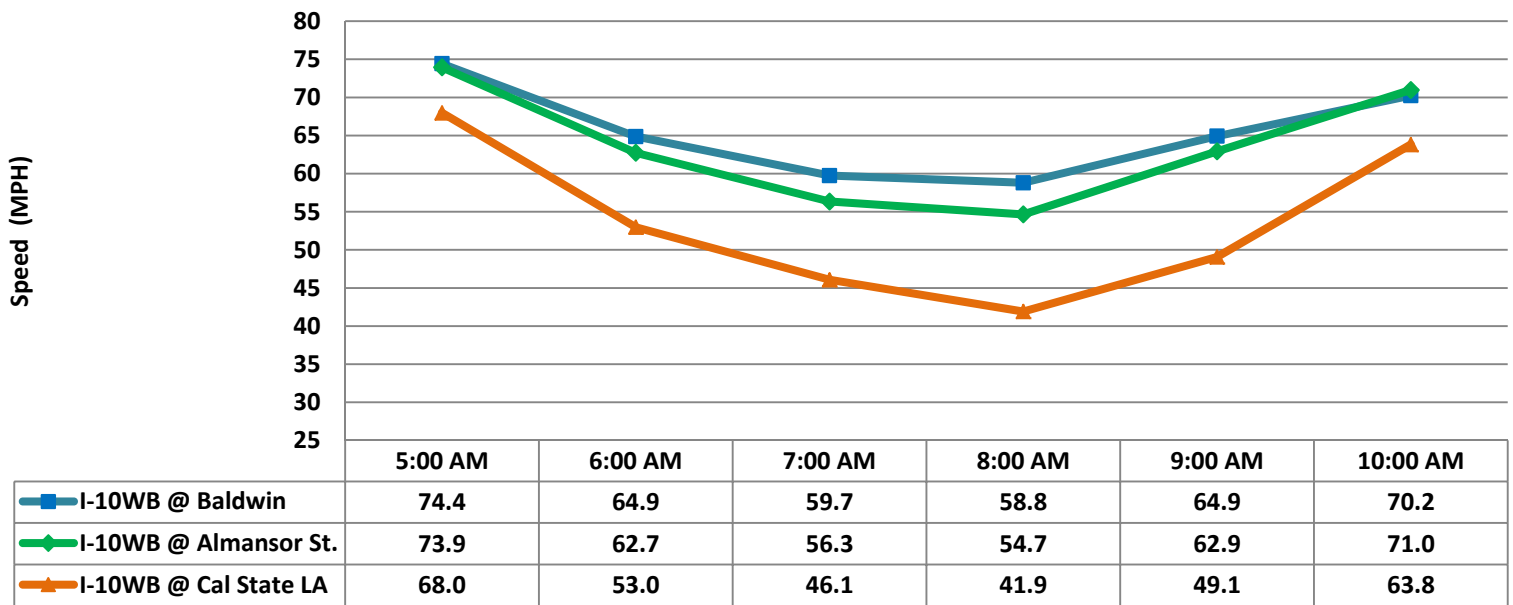
## I-10 ExpressLanes Average Travel Speeds During Morning Peak

Average travel speeds during the year have remained above 45mph for the entire AM peak period. In FY18, speeds decreased by 2% from FY17 on the I-10 westbound. Average speeds fluctuate during the morning peak depending upon the location and time. The number of vehicles in the ExpressLanes increases closer to downtown Los Angeles and between the hours of 7:00 AM and 9:00 AM causing speeds to decrease. In FY18, speeds were slowest near the Cal State Los Angeles exit around 8:00 AM.

### I-10WB Average Travel Speeds - AM Peak



### FY18 Average I-10WB AM Peak Speeds by Time and Location

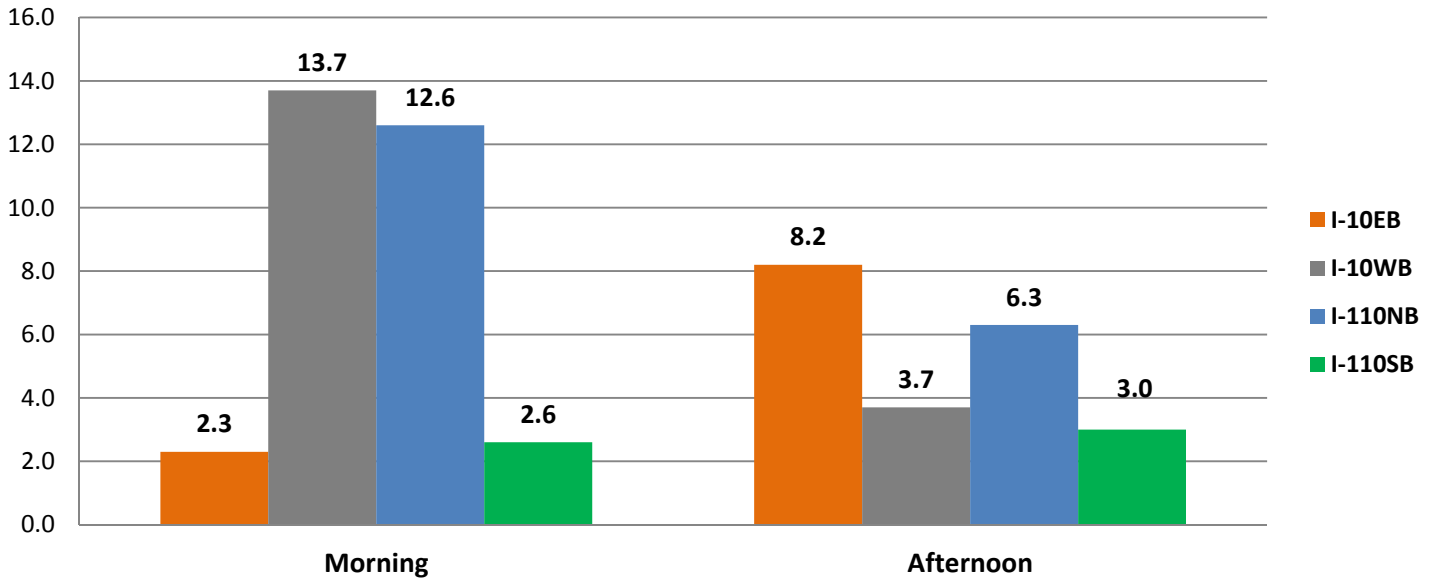




## ExpressLanes Travel Times Savings Over General Purpose Lanes

Average speeds in the ExpressLanes remain higher than the average speeds in the General Purpose (GP) Lanes. Travel time tests were performed on the ExpressLanes in the morning and afternoon peak times. Morning peak travelers saved up to an average of over 13 minutes when in the ExpressLanes compared to the GP lanes. Afternoon travelers saved up to an average of 8 minutes in the ExpressLanes compared to the GP lanes.

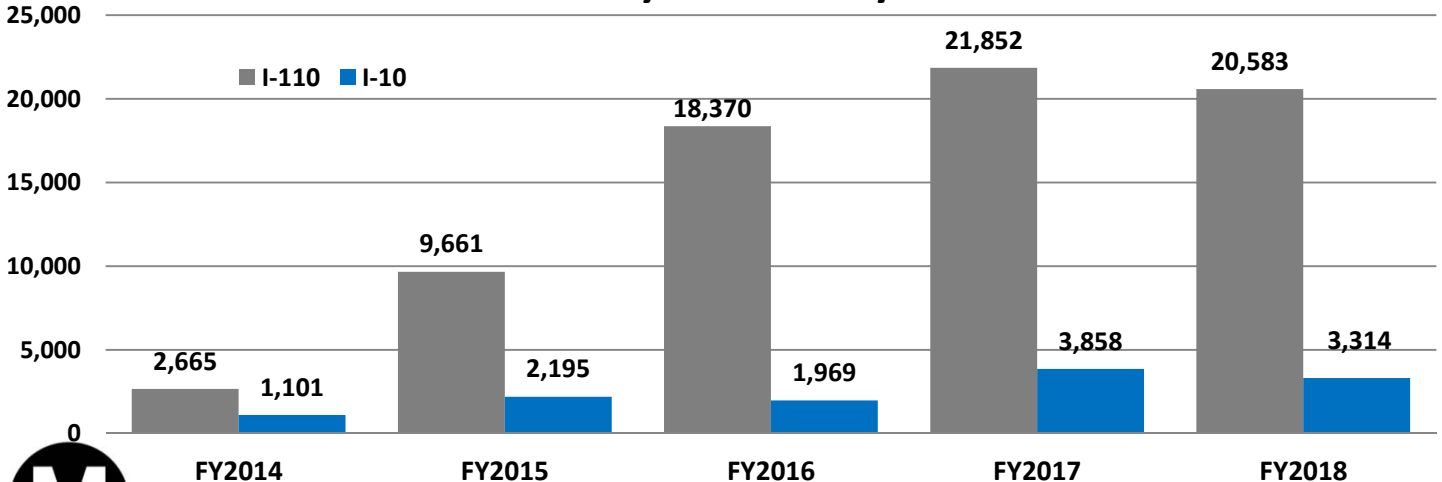
### FY18 Average Travel Time Savings (Minutes)



## HOV Only Status

When the average vehicle speed begins to fall below 45mph on a segment of the lanes, the lanes go into HOV Only status, precluding SOV drivers from entering the lanes to help alleviate some congestion. Due to the higher vehicle volumes and lower HOV requirement, the I-110NB goes into HOV Only status more frequently than the I-10WB. FY18 HOV Only minutes decreased by 5.8% on the I-110 and 14.1% on the I-10 due to further refinement of the dynamic pricing algorithm.

### HOV Only Minutes by Year

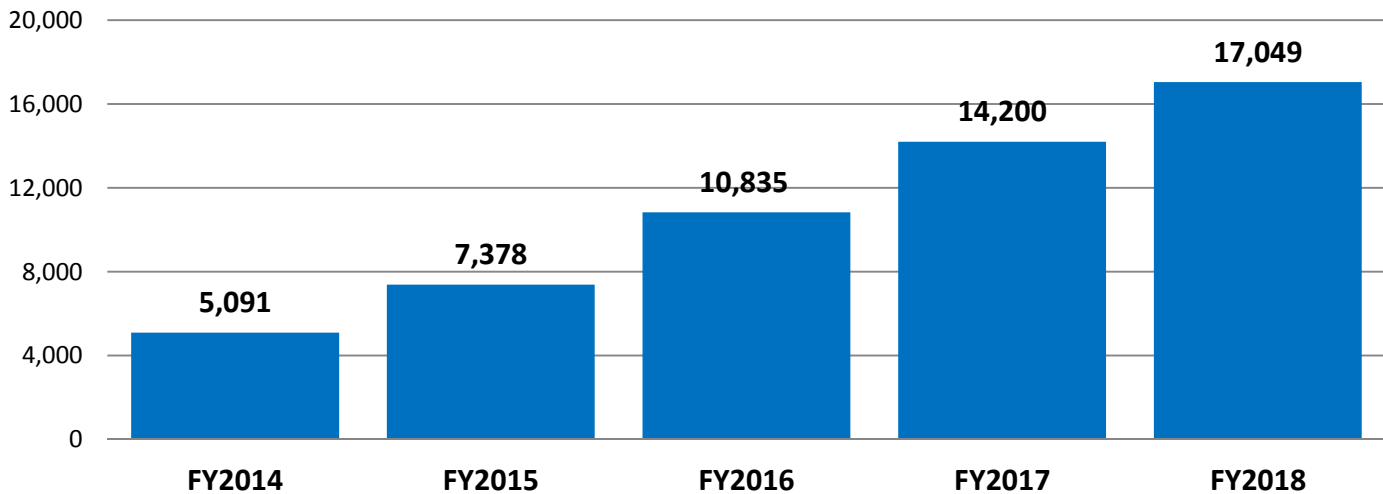




## ExpressLanes Customer Incentives – Low Income Assistance Plan

Residents of Los Angeles County with an annual household income equal to or less than double the federal poverty level qualify for a one-time credit of \$25 and an automatic waiver of the monthly account maintenance fee. Although the number of new accounts opened was less in FY18 than FY17, the total number of accounts increased by 20% to 17,049. Increased outreach and marketing is planned for FY19 in an effort to increase customer participation in the program.

### Total Low Income Assistance Plan Accounts



## Low Income Assistance Plan Outreach

Metro ExpressLanes provides outreach at different community events, festivals, and transportation workshops throughout the year to promote the plan. During FY18 multiple campaigns advertised the program on bus cards (spring 2018), billboards (spring 2018), and online ads (winter 2017 to spring 2018).



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# METRO EXPRESSLANES



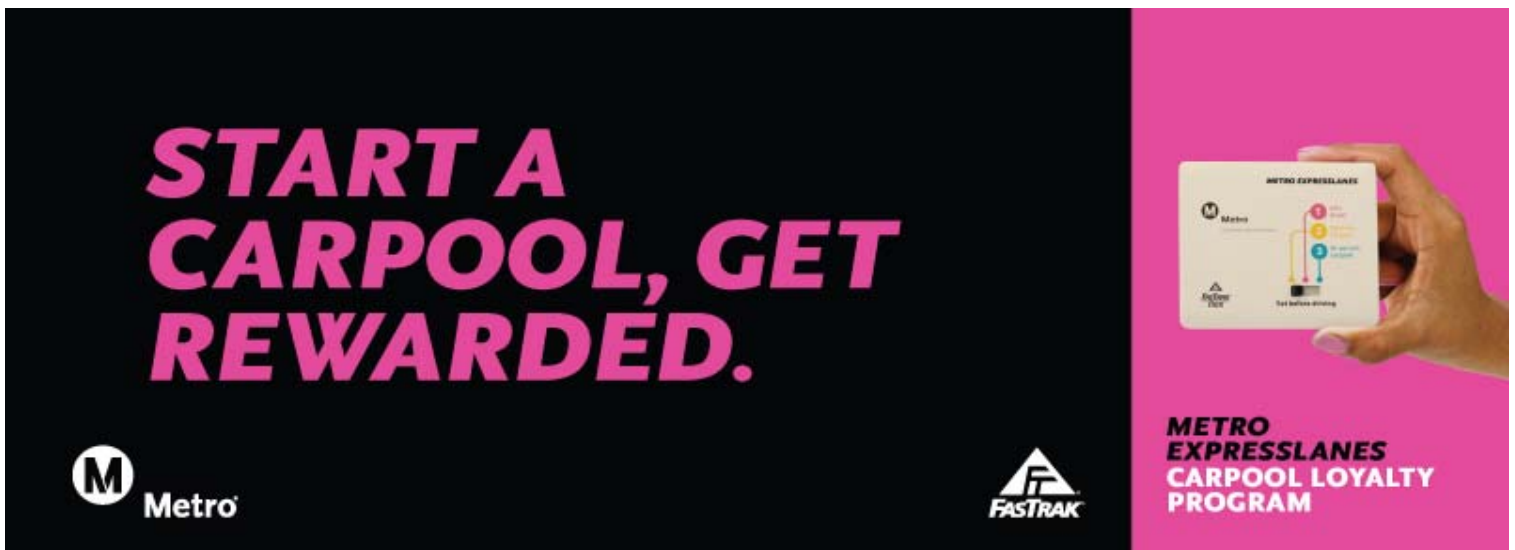
## ExpressLanes Customer Incentives – Transit Rewards

Transit riders that register a TAP card on their ExpressLanes account can earn a \$5 toll credit each time they take 16 one-way transit trips during peak hours on the I-110 Harbor Transitway or the I-10 El Monte Busway. Since the opening of the ExpressLanes, 749,000 qualifying transit trips have been taken and \$179,960 in rewards have been issued.



## ExpressLanes Customer Incentives – Carpool Loyalty

The Carpool Loyalty Program automatically enters Metro ExpressLanes customers into a monthly drawing for a chance to win gift cards and toll credits when they use the ExpressLanes with a FasTrak® set to HOV2 or HOV3 status. Since the inception of the program, \$45,000 in gift cards and toll credits have been given to carpoolers.





## ExpressLanes Customer Appreciation – 5<sup>th</sup> Year Anniversary

The Metro ExpressLanes celebrated the 5<sup>th</sup> anniversary of operations in FY18. The I-110 ExpressLanes opened November 10, 2012 and the I-10 on February 23, 2013. In appreciation of our customers, all tolls were reversed for trips taken on the anniversary date of each corridor. In addition, Metro ExpressLanes staff recognized customers with the longest active accounts; provided all Low-Income Assistance Program participants with toll credits; and with support from Metro Operations, provided transit riders at the El Monte and Harbor Gateway Transit centers with ExpressLanes branded giveaways.



Metro ExpressLanes giveaways were provided to transit riders at the Harbor Gateway Transit Station November 6-9, 2017. (Above)



Messaging signs on the ExpressLanes had an appreciation message for customers on the I-110 and I-10 anniversary dates. (Above)



Transit riders were able to learn more about Metro ExpressLanes and receive giveaways at the El Monte Station February 19-23, 2018. (Left)



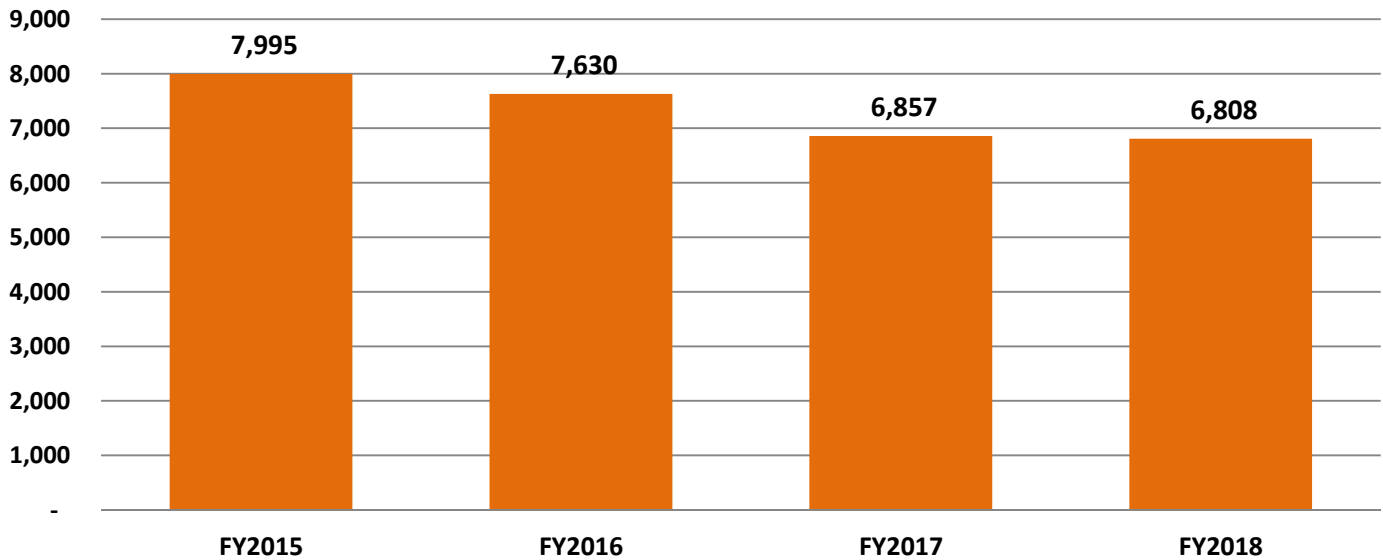
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## Silver Line Transit Ridership on the ExpressLanes

The Metro Silver Line operates as a Bus Rapid Transit (BRT) system on the I-110 and I-10 ExpressLanes. Silver Line ridership on the ExpressLanes during the peak periods has decreased by 0.71%, compared to overall Silver Line ridership increase of 2.3% in FY18.

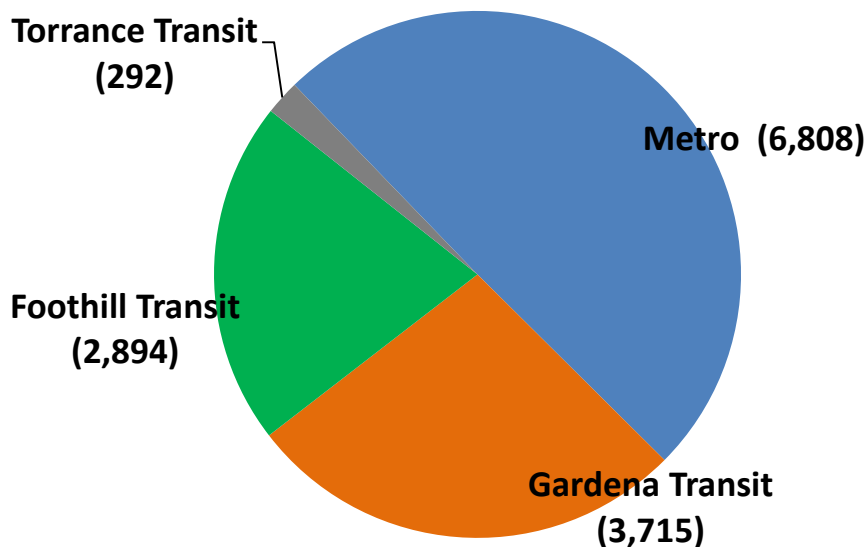
### Silver Line Average AM and PM Peak Daily ExpressLanes Ridership



## FY18 Transit Ridership on the ExpressLanes

In addition to the Metro Silver Line, Foothill Transit, Gardena Transit and Torrance Transit operate on the I-110 and I-10 ExpressLanes. In FY18 an average of 13,709 passengers were transported by these agencies during the AM and PM peak periods.

### FY18 ExpressLanes Average AM and PM Peak Daily Transit Ridership



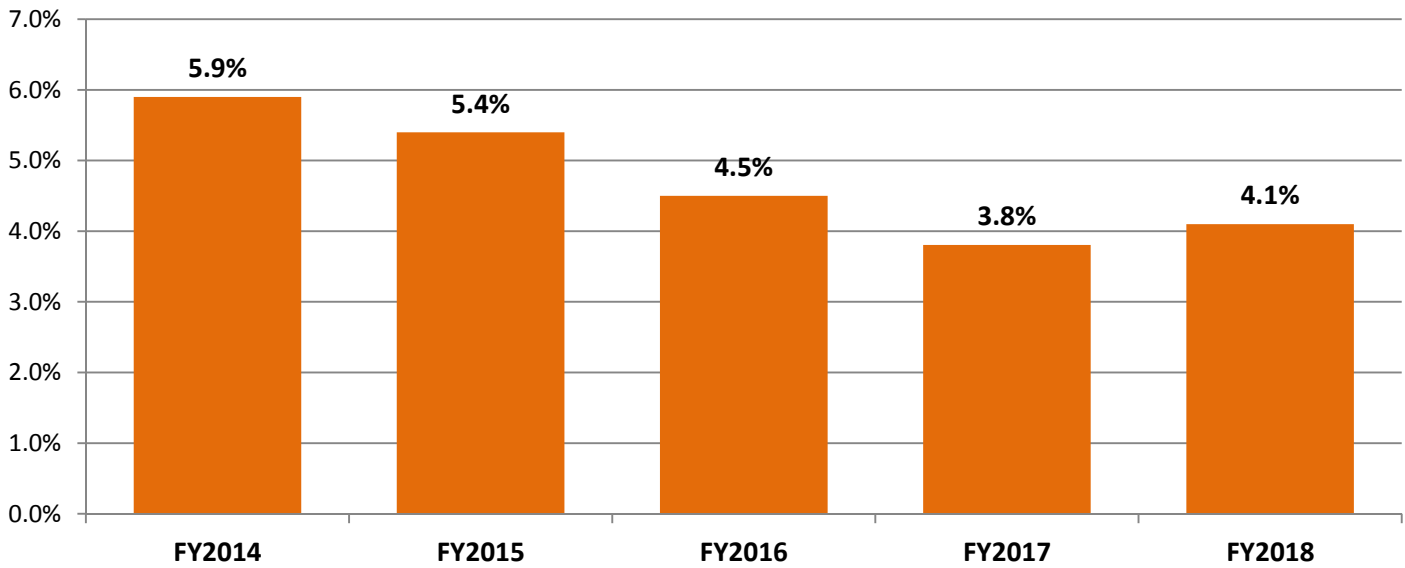




## ExpressLanes Safety & Enforcement – Violations Issued

Metro ExpressLanes issues a notice of toll evasion violation when vehicles travel the ExpressLanes without a valid FasTrak® transponder. As public awareness of the ExpressLanes increases, the percentage of violations issued decreases. There was a slight increase in the percentage of violations between FY17 and FY18. Nevertheless, the violation percentage is consistent with programs at the same level of maturity at the 5 year mark.

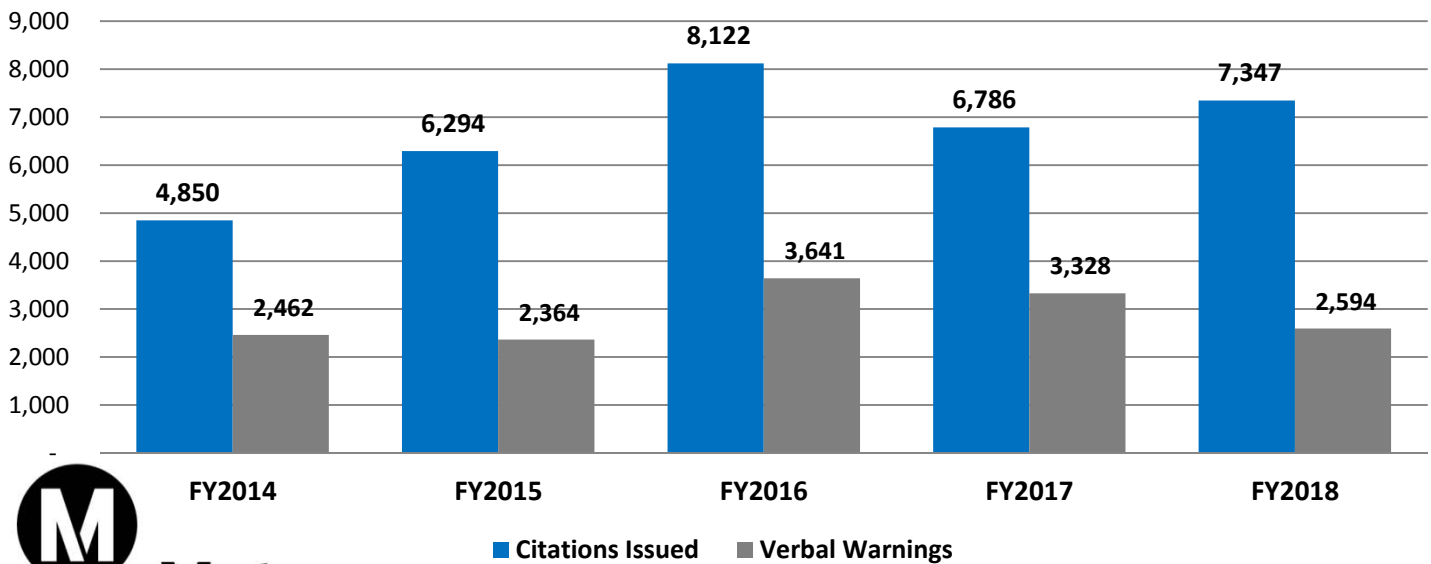
Violation Rate by Year



## ExpressLanes Safety & Enforcement – CHP Activity

CHP officers are contracted to provide additional visual enforcement. CHP issues a toll/transponder related citation when a non-exempt vehicle is observed using the ExpressLanes without a transponder or the transponder switch setting does not match the observed vehicle occupancy. CHP issued citations increased by 8% from FY17 to FY18.

CHP Issued Citations & Verbal Warnings

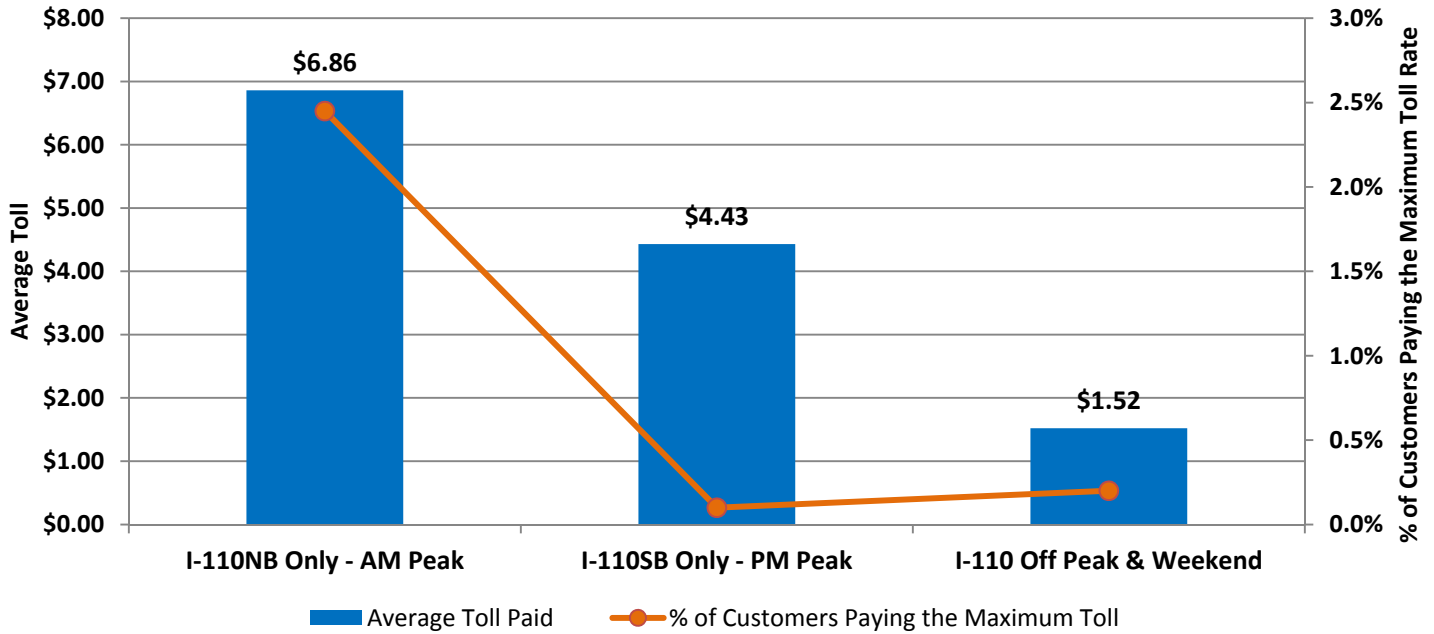




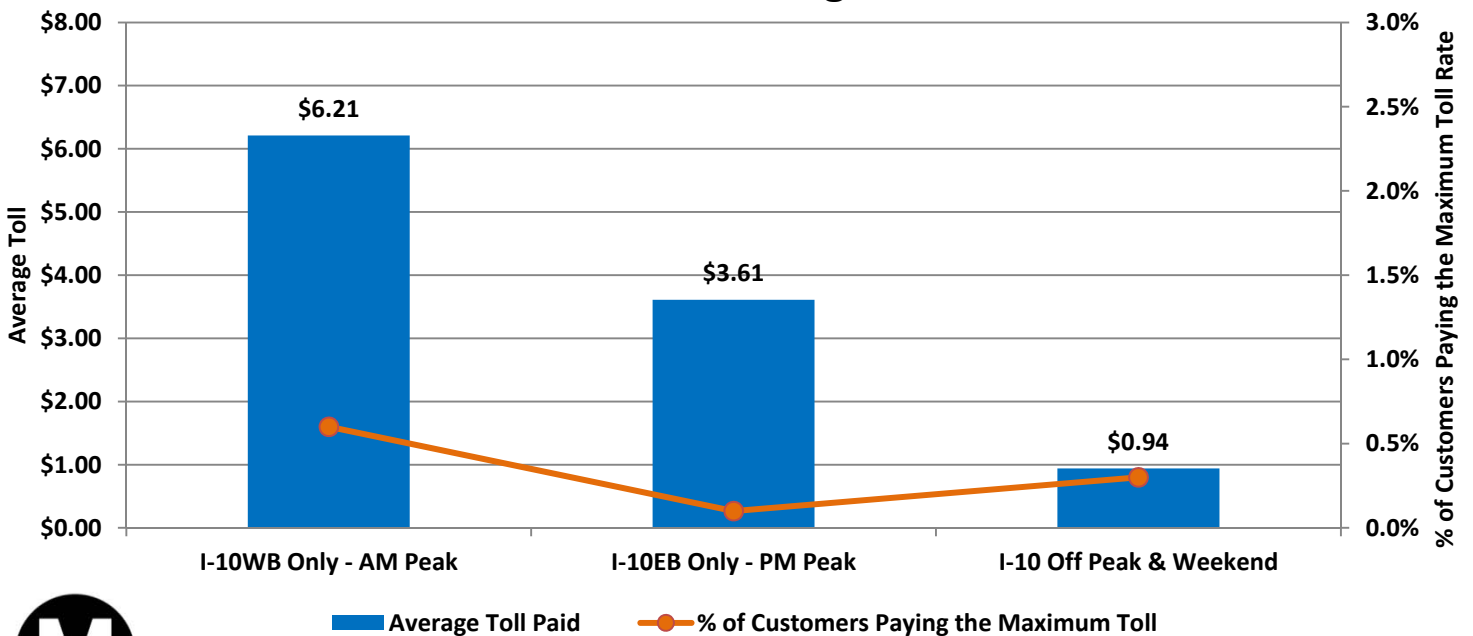
## Average Tolls

Metro ExpressLanes uses a dynamic pricing algorithm to adjust the price of tolls according to the traffic volumes on the ExpressLanes. In FY18 the toll rates ranged from a minimum of \$0.10 to a maximum of \$2.00 per mile driven on the ExpressLanes. In FY18 the average toll during the AM Peak was \$6.86 and \$6.21 on the I-110NB and I-10WB respectively. Few customers pay the maximum toll rate; only 2.45% of I-110NB customers and 0.6% of I-10WB customers paid the maximum toll rates of \$26.20 and \$22.50, respectively during the AM Peak in FY18.

### FY18 I-110 Average Tolls



### FY18 I-10 Average Tolls





## 2018 Metro ExpressLanes Customer Survey

During August 2018 Metro ExpressLanes conducted a survey of our customers. The purpose of the Metro ExpressLanes 2018 Customer Survey was to gather feedback as part of Metro ExpressLanes' ongoing efforts to improve customer experience.

The survey included questions regarding Metro ExpressLanes use, proposed customer incentives/programs and potential modifications to toll-exempt carpool requirements. The survey was conducted August 1-15, 2018 and was sent to all Metro ExpressLanes customers with a valid email on file. In FY18 a total 81,748 customer responded. This was an 80% increase over 2017's 45,278 respondents.

Respondents were evenly split between I-10 and I-110 users providing insight to customer travel patterns and awareness of business rules on both corridors. In general, customer satisfaction remains high and at or above the satisfaction levels of the 2017 customer survey.

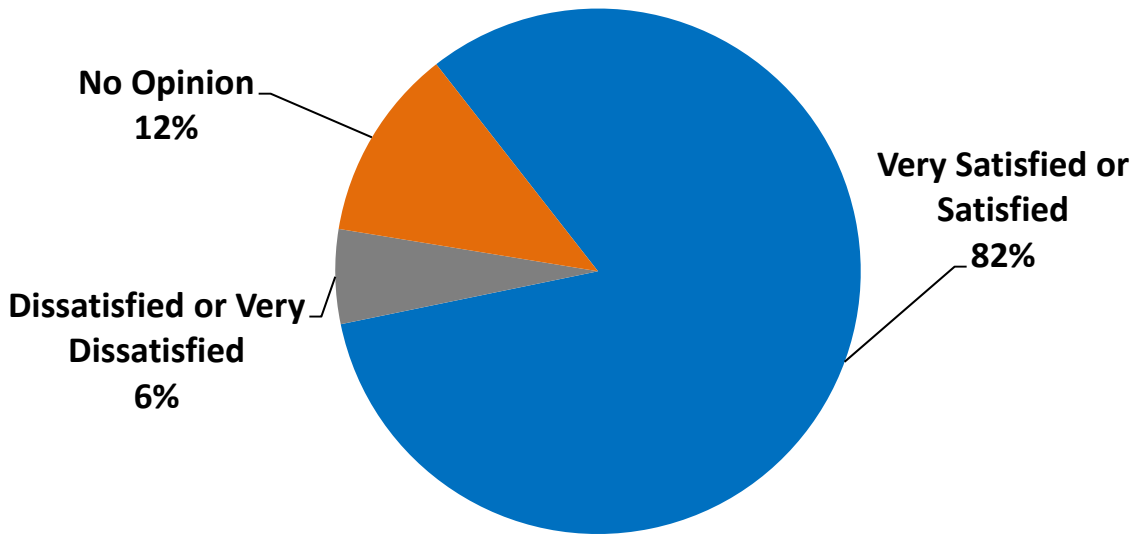
**Key 2018 customer surveys findings are listed on the following pages.**



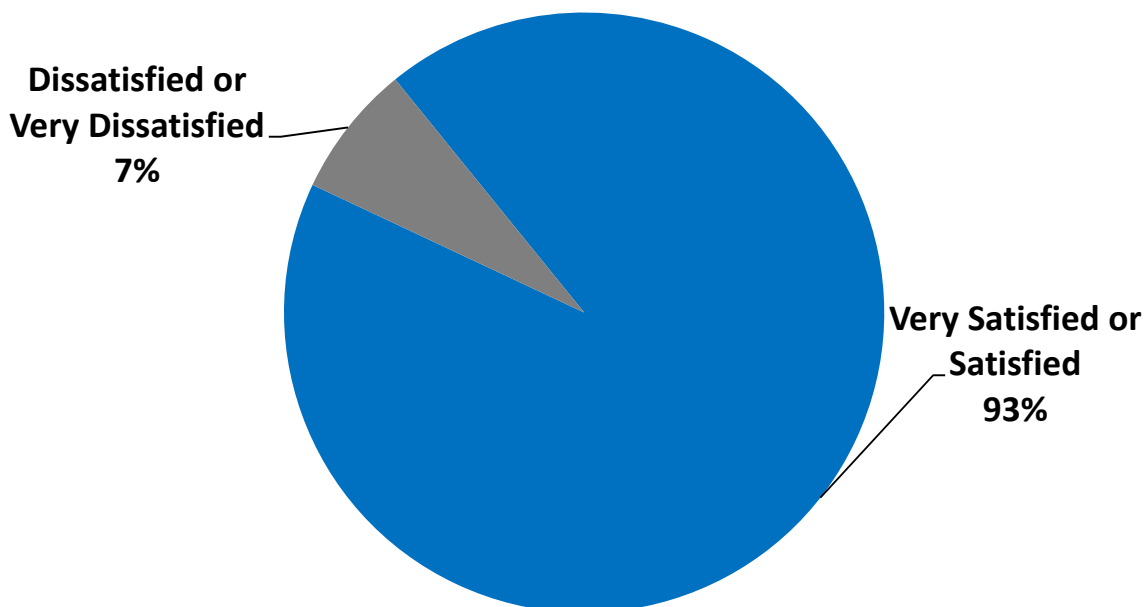
## 2018 Customer Survey – Customer Satisfaction

Customer satisfaction remains high for Metro ExpressLanes with 82% very or somewhat satisfied with Metro ExpressLanes customer service. Customers were very satisfied with the safety on Metro ExpressLanes which received a satisfaction rate at 93%.

### How Satisfied are you with Metro ExpressLanes Customer Service?



### How Satisfied are you with the Safety of the Metro ExpressLanes?

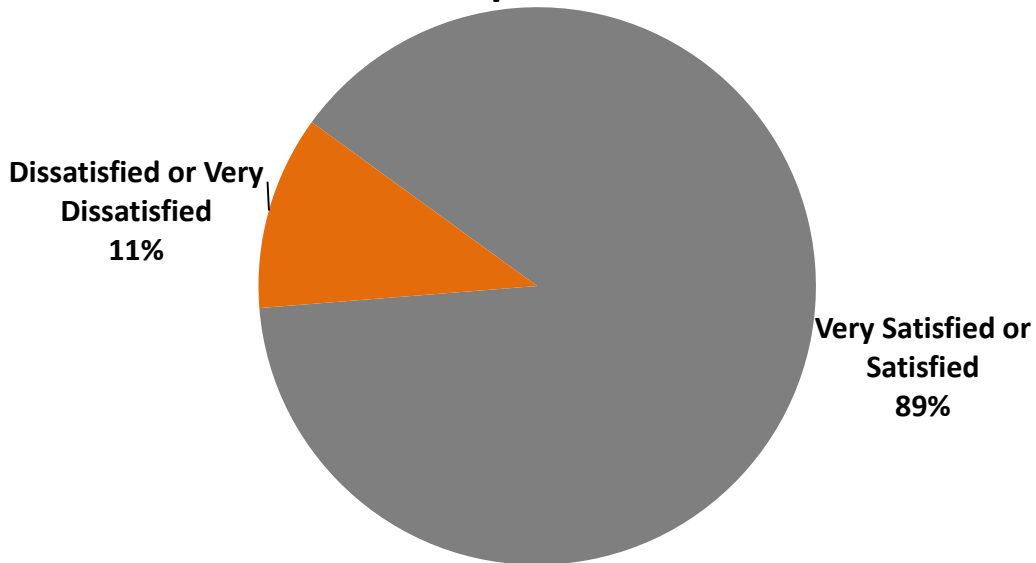




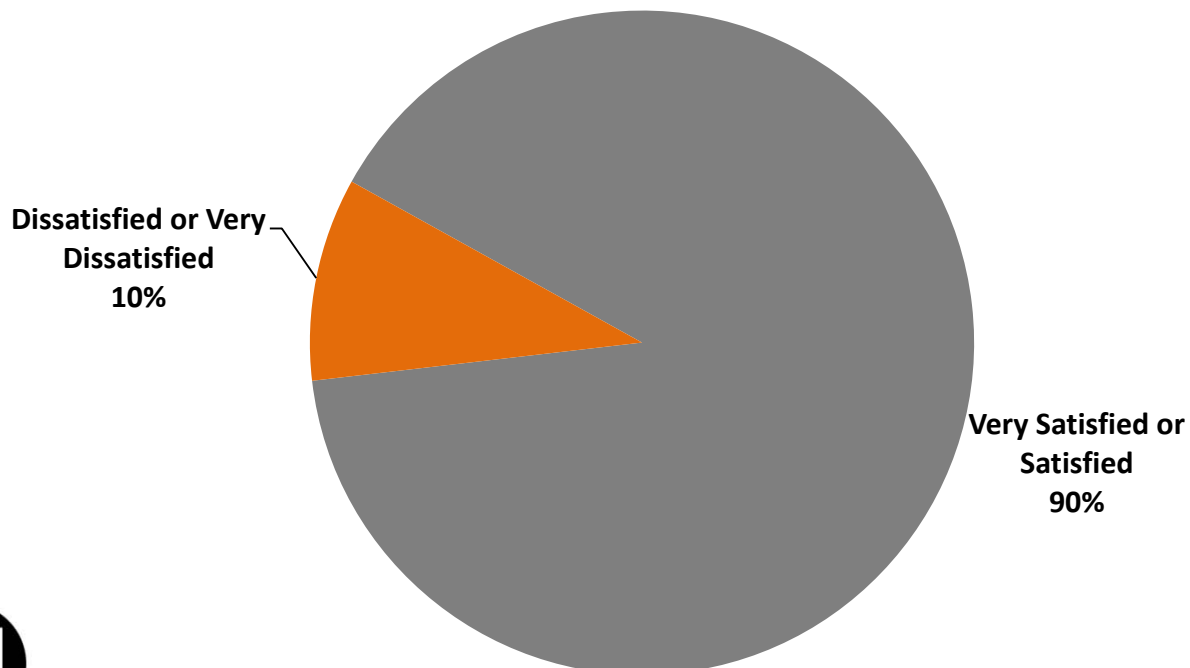
## 2018 Customer Survey – Customer Satisfaction

In FY18, customer satisfaction is high for Metro ExpressLanes with speeds and the time saved relative to the toll spent at 89% and 90%.

### How Satisfied are you with the Speed you can Maintain in the Metro ExpressLanes?



### How Satisfied are you with the time saved relative to the toll paid for the Metro ExpressLanes?

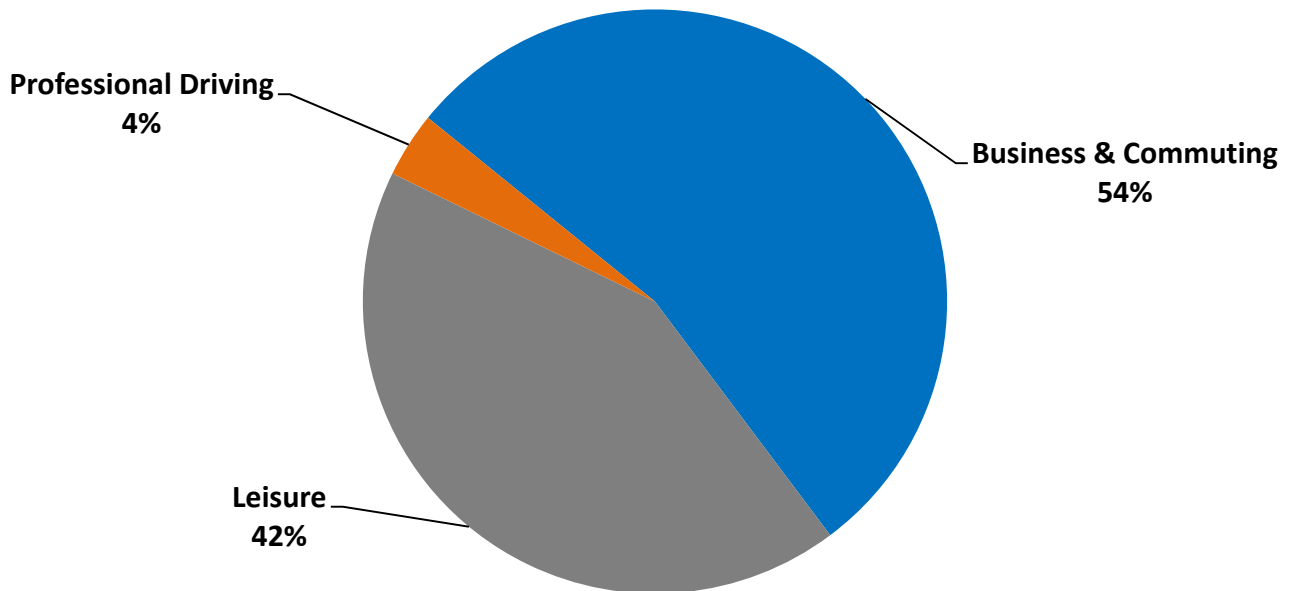




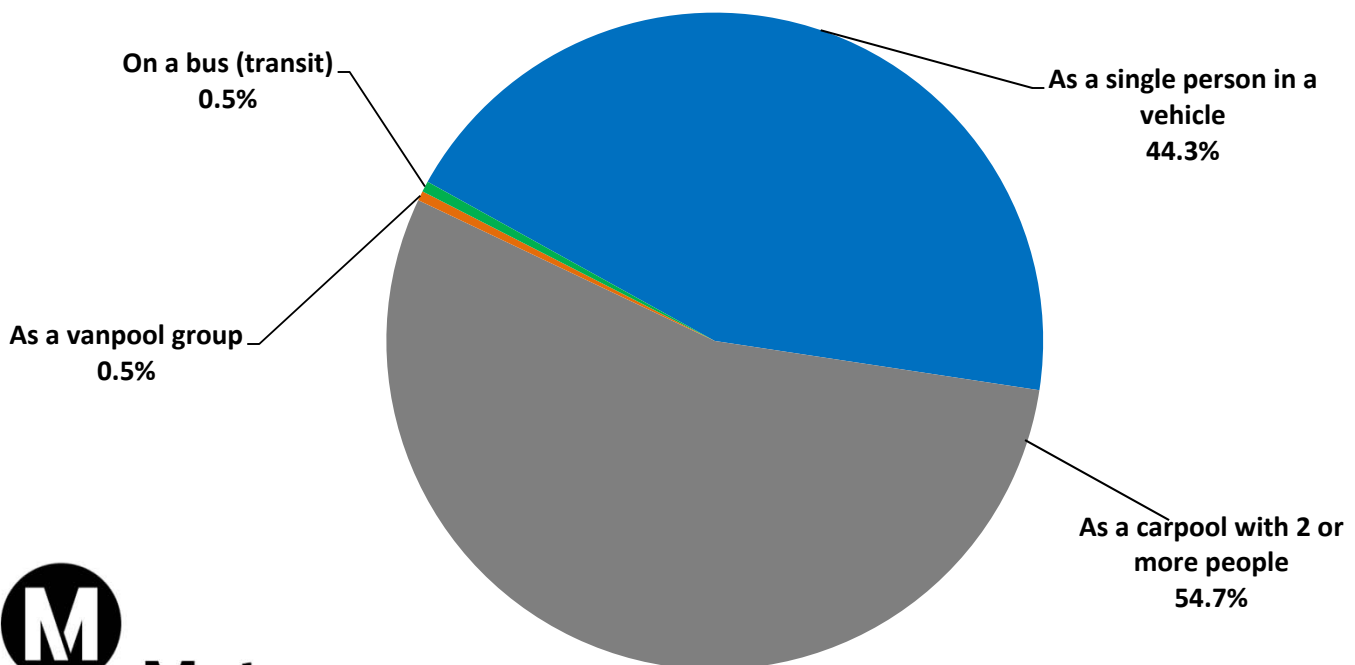
## 2018 Customer Survey - Usage

54% of respondents used the ExpressLanes for work and business related (commuting, meetings, deliveries, etc.) trips while 42% of survey respondents used the ExpressLanes for leisure activities (errands, day trips, etc.). On weekdays, survey respondents drove alone 44% of the times, travelling on a bus or in a vanpool about 1% of the time.

### What is your Main Purpose for Travelling on the Metro ExpressLanes?



### How do you Typically Travel on the Metro ExpressLanes on Weekdays?

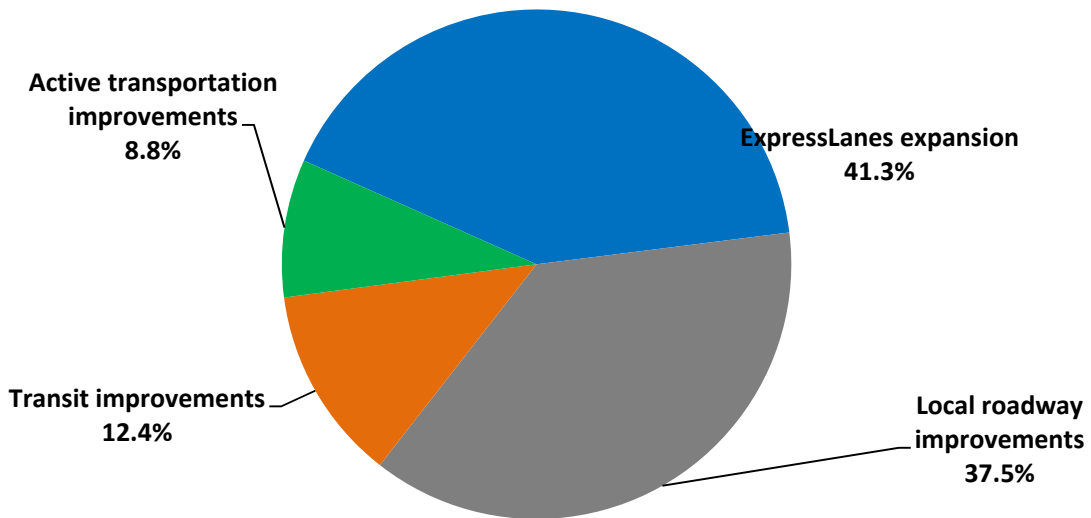




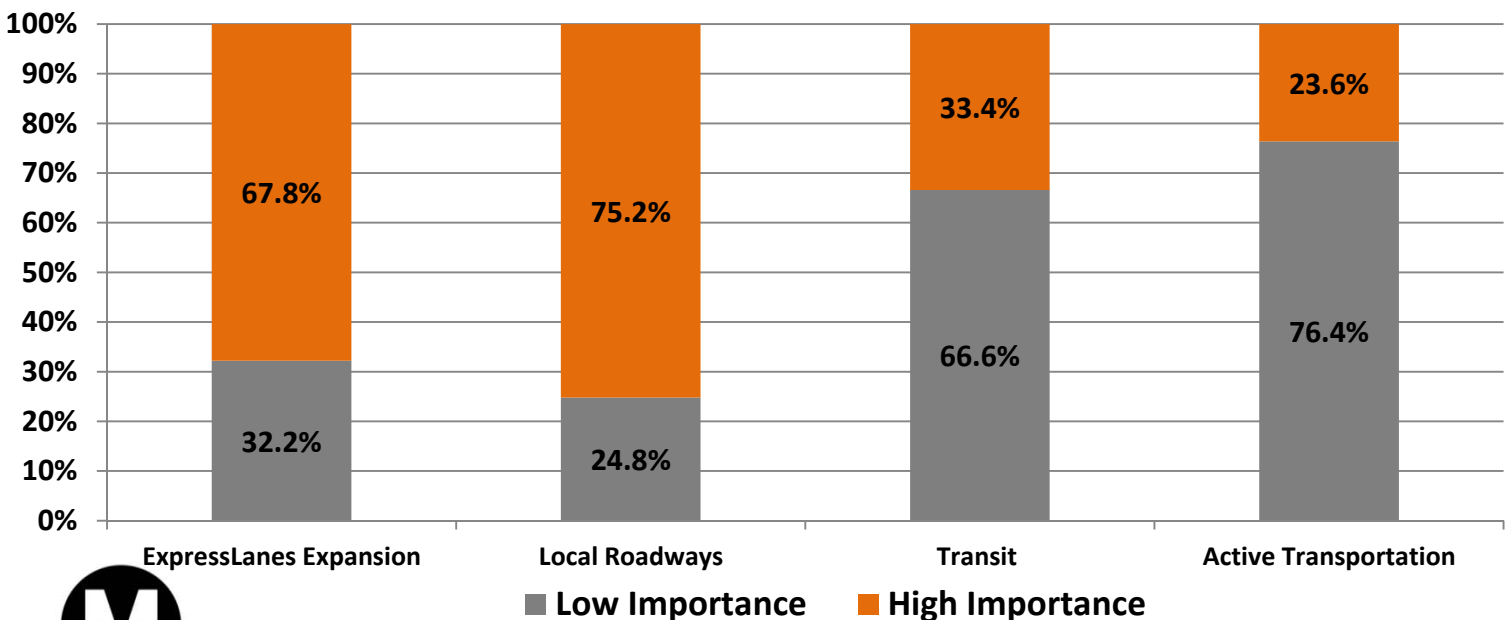
## 2018 Customer Survey – New Initiatives

Customers were asked to rank the importance of different ways to mitigate traffic congestion. If they could only choose one thing, 41% of customers believe that expanding ExpressLanes onto other corridors would be the best way to mitigate congestion. However, when ranking strategies as high or low importance, 75% of customers ranked local roadway improvements and 68% ranked ExpressLanes expansion as high importance. Only 24% of customers ranked active transportation improvements (walking and biking) as high importance.

### Which of the Following do you Think is the Most Important in Mitigating Traffic Congestion in LA County



### How Important do you Think Each will be in Mitigating Traffic in LA County?

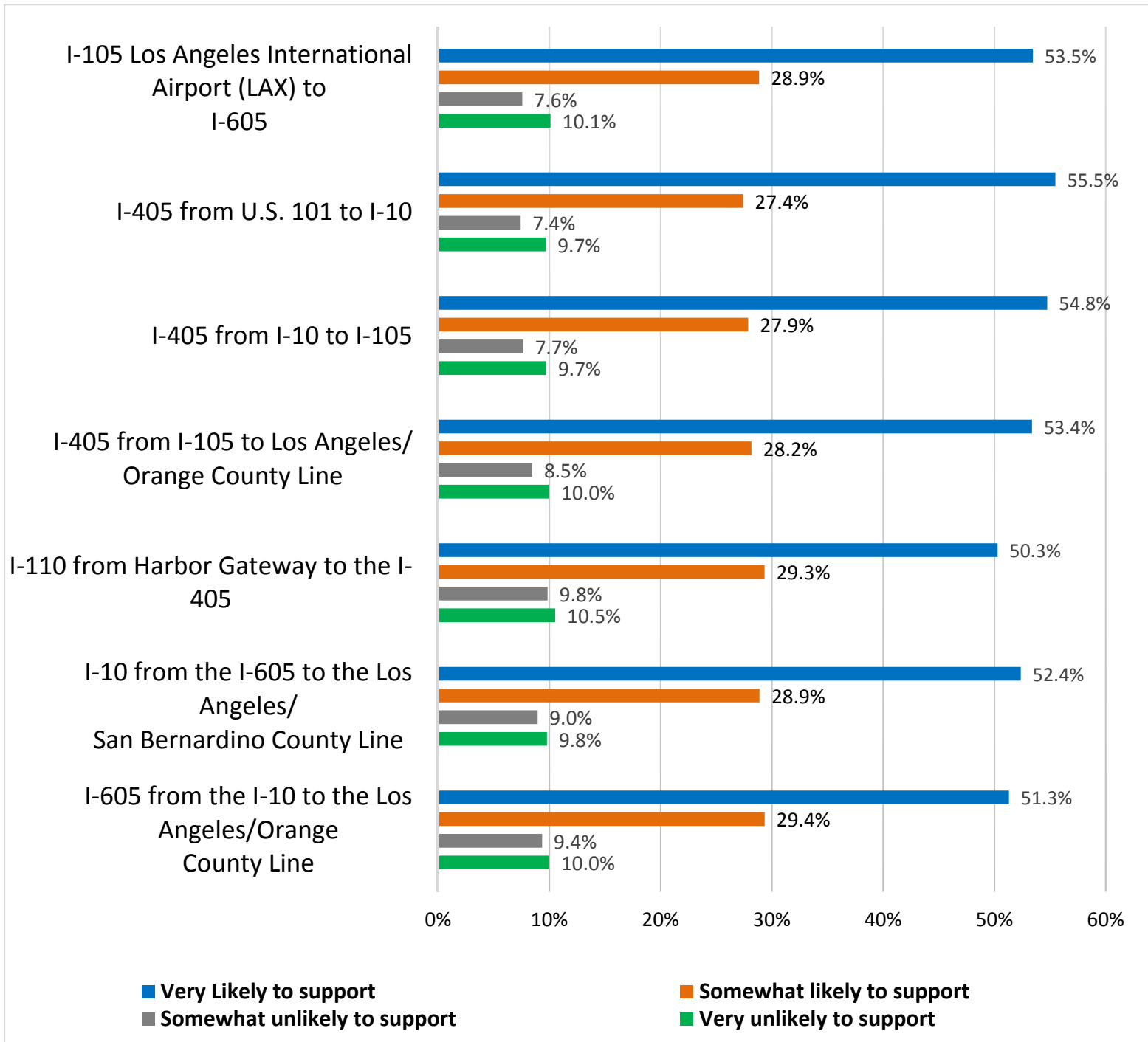




## 2018 Customer Survey – ExpressLanes Expansion

More than 75% of all respondents were very or somewhat likely to support Metro ExpressLanes on all projects listed. The I-105 LAX to I-605 and I-405 from U.S. 101 to I-10 received the highest support ratings of 82.3% and 82.9% respectively.

### Would you support Metro ExpressLanes on the following roadways?



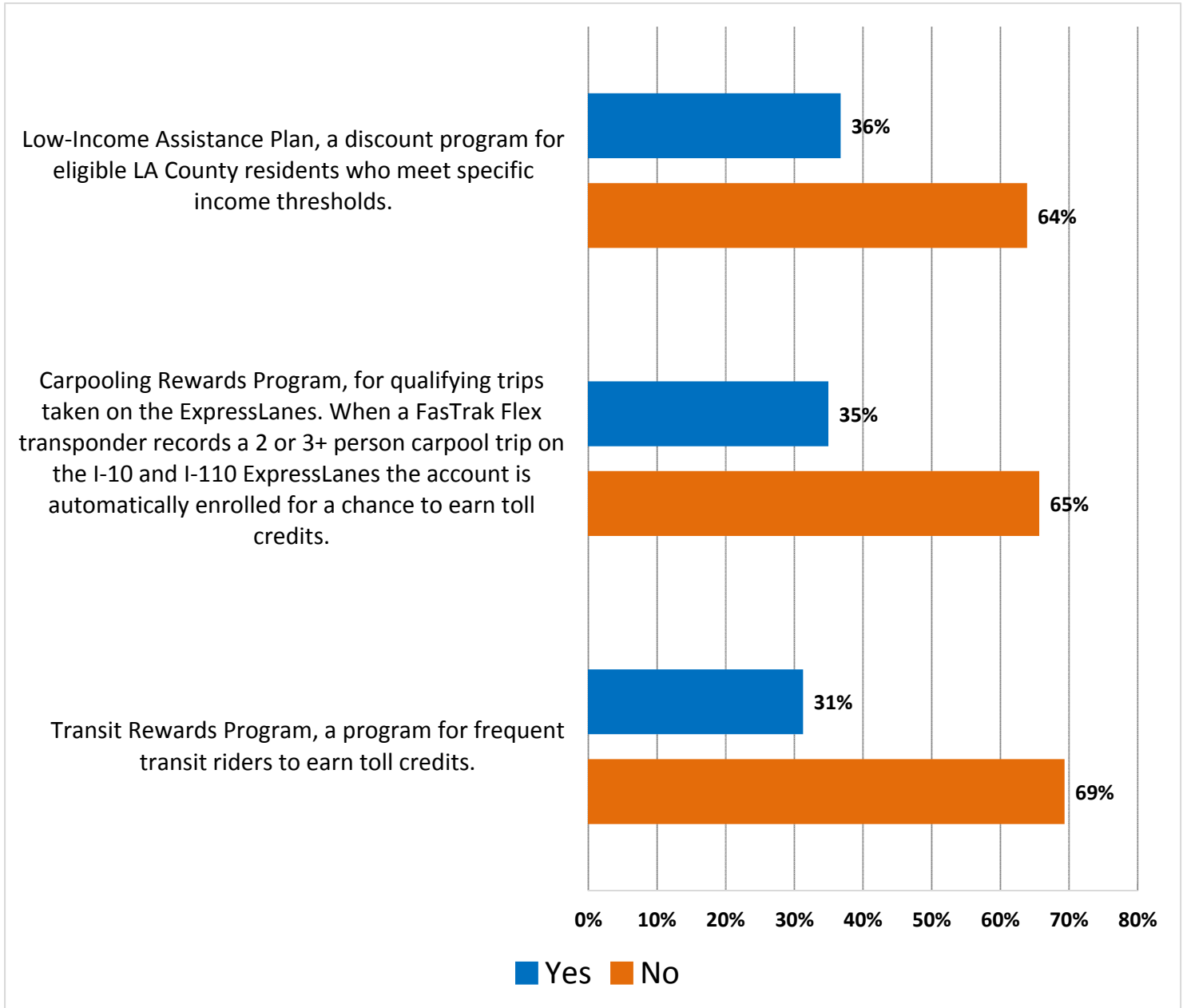




## 2018 Customer Survey – Customer Programs

Customer awareness of the different discount programs available were low, with the Transit Rewards Program having the lowest customer awareness at 31%. Metro ExpressLanes will increase marketing of the plans in FY19.

### Before today, were you aware of each of the following programs offered by Metro ExpressLanes?





## OPERATIONAL IMPROVEMENTS ON THE EXPRESSLANES IN FY2019 and FY2020

**Transponder Readers:** Upgraded multi-protocol transponder antennas and readers at every toll collection site, with additional antennas between lanes to ensure accurate capture of vehicles in the process of changing lanes or driving in the shoulder areas.

**License Plate Readers:** Upgraded license plate cameras with two cameras dedicated to each lane at each toll collection site for full redundancy. Also, an upgraded, distributed license plate processing system installed at each toll site to process license plate photos.

**Advanced Toll Site Monitoring:** A new digital video audit system providing complete camera coverage of each toll zone, for transaction verification and review.

**Vehicle Detection:** New laser scanners above each lane to ensure accurate detection of vehicles in the event of any failures of the primary detection system loops in the pavement.

**Enforcement Technology:** Upgraded enforcement beacons that display large numbers corresponding to the transponder switch setting of each vehicle to facilitate CHP enforcement.

**ExpressLanes Roadway Monitoring:** Expansion of the CCTV camera system to fill a number of coverage gaps and achieve complete monitoring .

**Traffic Conditions Monitoring:** Expansion of our traffic detection system that monitors throughput and speed, to provide more accurate travel time estimates and more precise input data to the dynamic pricing system. This expansion will more than double the current number of sensors out on the ExpressLanes, and will also expand coverage to provide data for the general purpose lanes as well.

**Pricing System:** Significant enhancements to the dynamic pricing system including additional traffic sensor inputs, comparative pricing model analysis tools, and access to additional tuning parameters to refine and optimize performance.



## EXPRESSLANES NETWORK EXPANSION EFFORTS

- **Preparation of a Network Project Study Report (PSR) for the Tier 1 projects identified in the Metro ExpressLanes Strategic plan:**
  - The Network PSR for the I-10, I-405, and I-605 is scheduled to be completed in Summer 2019.
- **I-105 ExpressLanes from the I-405 to I-605:**
  - Project Approval/Environmental Document (draft), Concept of Operations, and Investment Grade Traffic and Revenue Study are expected to be released in Summer 2019.
- **I-605 ExpressLanes from I-10 to I-105:**
  - Project Approval/Environmental Document (draft), Concept of Operations, and Level 2 Traffic and Revenue Study is scheduled to be released in Summer 2019.

# Metro ExpressLanes Fiscal Year 2018 Performance Report

October 17, 2018

# FY2018 Performance Summary

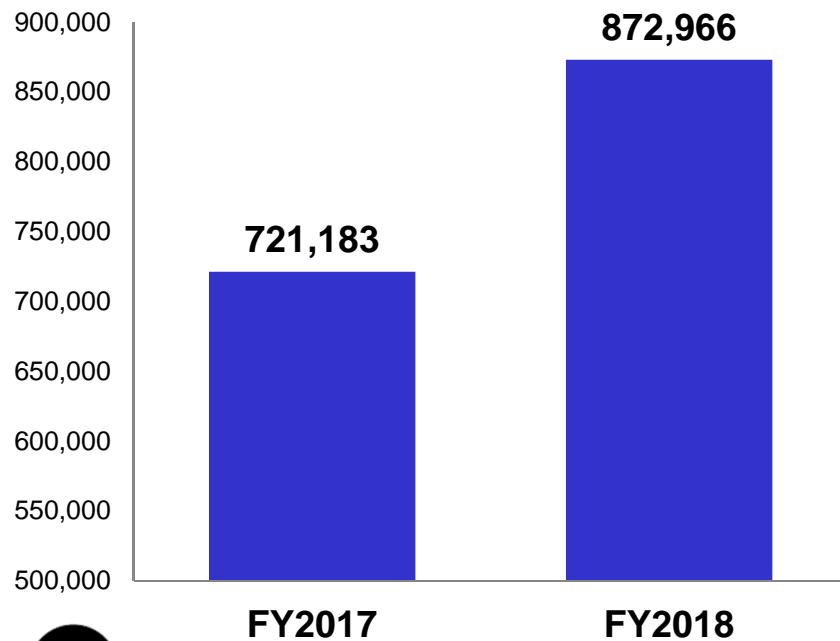
- **Over 195 million vehicle trips have been taken on the ExpressLanes in 5+ years of operations.**
- **702,500 Metro ExpressLanes FasTrak accounts have been opened.**
- **Metro ExpressLanes users save time compared to driving in the General Purpose Lanes:**
  - **An average of 13 minutes saved during the AM commute**
  - **An average of 7 minutes saved in the PM commute**
- **Between FY17-18, HOV-only minutes decreased by 14% and 5.8% on the I-10 and I-110, respectively.**



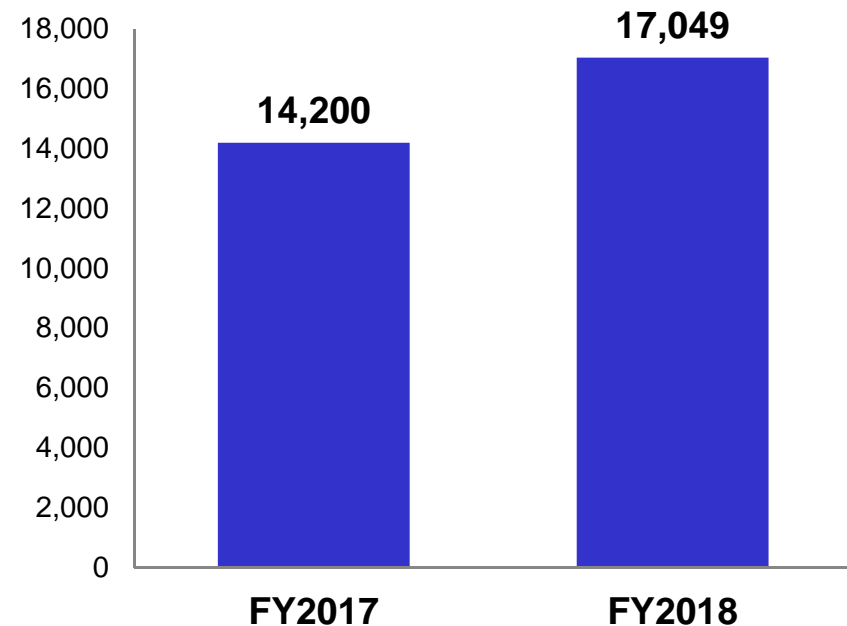
# FY18 Transponders and Accounts

- **872,966** transponders issued from inception through June 30, 2018, a **21% increase over FY17**
- **17,049** total Low-Income Assistance Plan accounts opened from inception, a **20% increase over FY17**

### FasTrak Transponders Issued



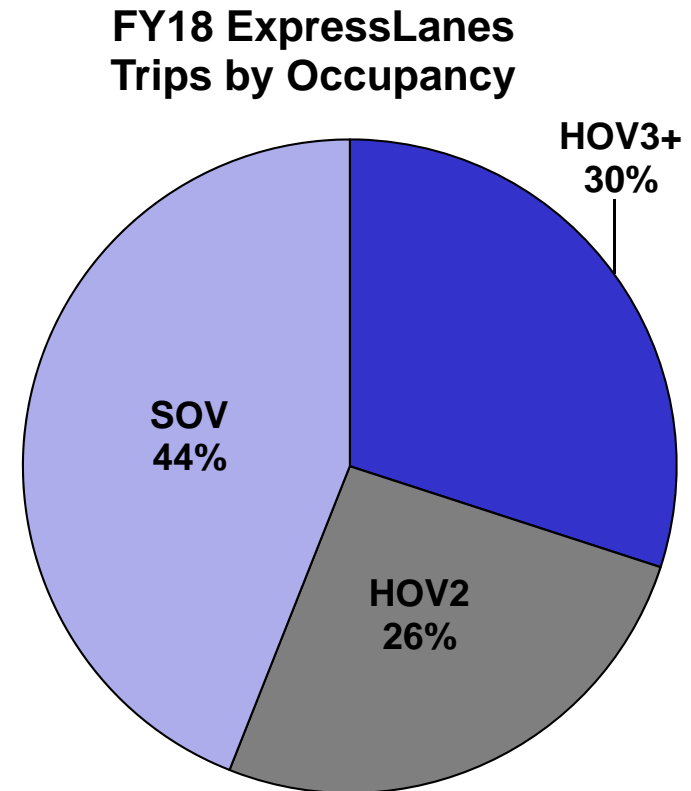
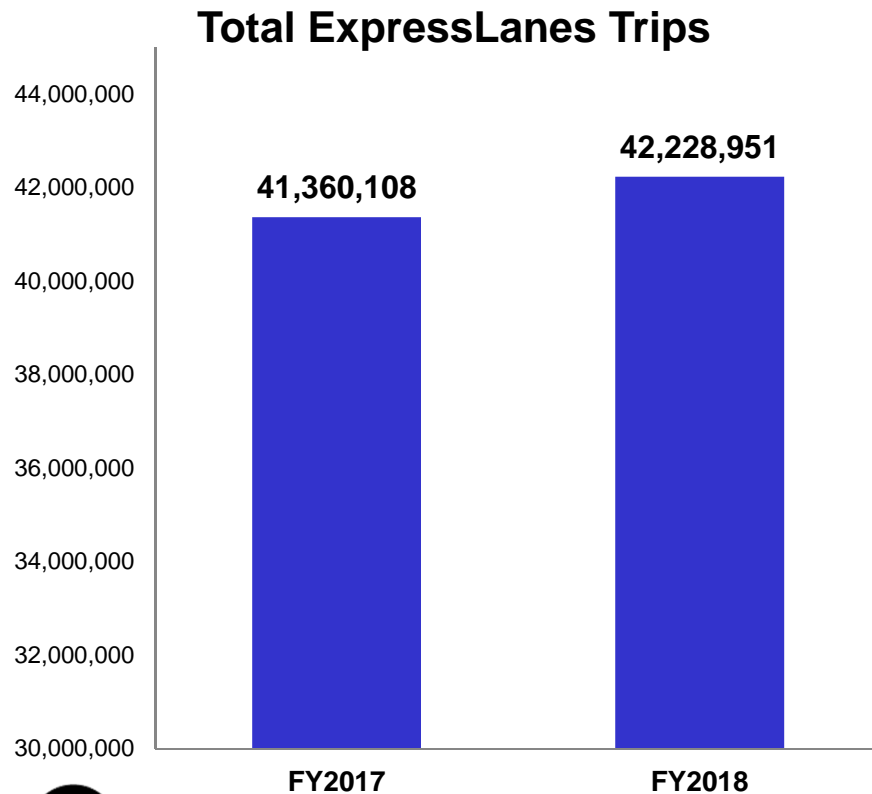
### Low-Income Assistance Plan Accounts Opened



**Metro**

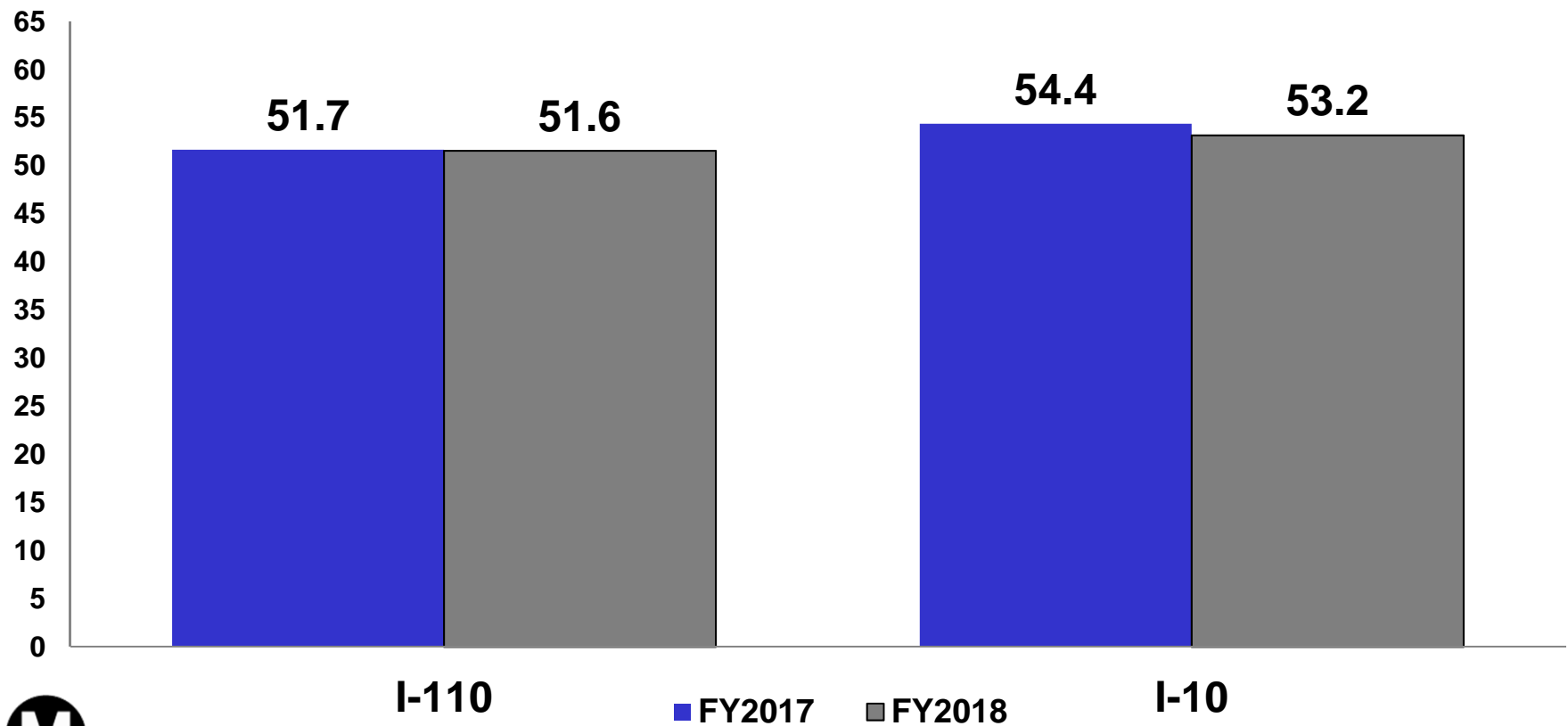
# ExpressLanes Trips

- In FY18 vehicle trips exceeded 42 million trips; a 2% increase over FY17
- 56% of ExpressLanes users drive in a vehicle with 2 or more occupants, the remaining 44% drive alone



# FY18 ExpressLanes Travel Speeds

## Average ExpressLanes Speeds (mph) – AM Peak Period





# 2018 Annual Customer Survey Findings

- **Conducted from August 1-15, 2018**
- **81,748 respondents**
- **Findings:**
  - **90% of respondents are satisfied with the amount of time saved relative to the toll paid; 10% increase over FY17**
  - **89% of respondents are satisfied with the maintained speed**
  - **93% of respondents are satisfied with safety of the ExpressLanes**
  - **More than 75% of respondents would support Metro ExpressLanes projects on additional LA County roadways**

# ExpressLanes 5<sup>th</sup> Year Anniversary

- **The Metro ExpressLanes celebrated the 5<sup>th</sup> anniversary of operations in FY18.**
  - I-110 ExpressLanes opened November 10, 2012
  - I-10 ExpressLanes opened on February 23, 2013
- **In appreciation of our customers:**
  - Tolls were reversed for trips taken on the anniversary date of each corridor.
  - All Low-Income Assistance Program participants received toll credits.
  - Transit riders at the El Monte and Harbor Gateway Transit centers received ExpressLanes branded giveaways.



# ExpressLanes Network Expansion Efforts

- **Network Project Study Report (PSR) for the I-10, I-405, and I-605 is scheduled to be completed in Summer 2019.**
- **I-105 ExpressLanes from I-405 to I-605:**
  - **Draft Project Approval/Environmental Document (PA/ED), Concept of Operations and Investment Grade Traffic & Revenue Study are expected to be released in Summer 2019.**
- **I-605 ExpressLanes from I-10 to I-105:**
  - **Draft PA/ED, Concept of Operations, and Level 2 Traffic and Revenue Study is scheduled to be released in Summer 2019.**

