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**TO:** Chairman Letourneau and NVTC Commissioners

**FROM:** Kate Mattice, Dinah Girma and Dan Goldfarb, PE

**DATE:** September 26, 2019

**SUBJECT:** NVTC Transit Resource Center

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At the October meeting the Commission will receive an update on the FY2019 4<sup>th</sup> Quarter Ridership Report and the FY2019 Annual Transit Performance Report.

### **A. FY2019 4<sup>th</sup> Quarter Ridership Report**

The FY2019 4<sup>th</sup> Quarter Ridership Report shows that overall transit ridership in Northern Virginia declined by three percent in the fourth quarter of FY2019 when compared to the same time period in FY2018. During this period, Metrorail experienced a shutdown in service on the Blue and Yellow Lines from Reagan-National Airport to the southern line termini. This shutdown started Memorial Day Weekend and continue through the summer until September 9, 2019. This disruption in service resulted in lower May and June ridership numbers. June was more heavily impacted, but Metrorail ridership still showed some decline May.

Excluding June ridership, for the months of April and May Northern Virginia transit ridership showed a two percent increase in unlinked passenger trips or boardings. All jurisdictional operated bus service experienced an increase in ridership over the same period last year. Comparing the month of June FY2019 and FY2018, there was a 12 percent decrease in transit ridership which is most likely a direct result of the previously mentioned Metrorail shutdown.

The unlinked passenger trips reported here are a function of farebox data since ridership on the extensive shuttle system put in place to address the shutdown was not included in the reporting by the jurisdictions. However, there was a separate effort to collect shuttle ridership data for analysis and inclusion in the National Transit Database (NTD) submission.

In April VRE ridership increased over the same period last year, but in May and June it decreased slightly. There might have been expected ridership increases in June as a result of the Metro shutdown, but heat restrictions and other track related issues on the running speed seemed to have impacted reliability as well as ridership in May and June.

Ridership in Virginia by System – 4 <sup>th</sup> Quarter FY2019			
System	FY18 Q4	FY19 Q4	Percent Change (2018-2019)
Arlington Transit	745,850	757,592	2%
Alexandria DASH	1,059,888	982,546	-7%
Fairfax County Connector	2,171,734	2,190,369	1%
Fairfax City CUE	143,081	149,867	5%
Loudoun County Transit	436,644	473,303	8%
PRTC OmniRide & OmniLink	622,628	627,495	1%
Virginia Railway Express	1,217,459	1,207,191	-1%
Metrobus	4,395,689	4,346,111	-1%
Metrorail	24,540,560	23,682,581	-3%
<b>Total</b>	<b>35,333,533</b>	<b>34,417,055</b>	<b>-3%</b>

Source: WMATA, NVTC, and local and regional transit providers. Ridership is in unlinked passenger trips.

Average Weekday Ridership in Virginia - 4 <sup>th</sup> Quarter FY2019				
System	April FY19	May FY19	June FY19	FY19 Q4
Metrorail	307,047	265,072	280,480	266,980
Metrobus	57,703	58,184	57,448	56,744

1: Based on Station Entries and Exits      2: Unlinked Passenger Trips

Source: WMATA and NVTC.

A [breakdown of ridership by Metrorail station in Virginia for the 4<sup>th</sup> quarter of FY2019](#) is attached.

## B. FY2019 Annual Transit Performance Report

NVTC's FY2019 [Annual Transit Performance Report](#) is a reframed effort that provides an overview of the transit service in Northern Virginia focused on average daily ridership, the best way to understand how transit is consumed in the Northern Virginia. The report is now produced shortly after the end of the fiscal year and reflects the quarterly ridership data collected and reported on by NVTC during the previous fiscal year. The goal of this new reporting effort is to:

- Improve accuracy;
- Simplify the collection and reporting process;
- Improve understanding of the data; and
- Provide context and meaning to current ridership trends.

The report begins with an overview of transit ridership focusing on system totals by mode over a five-year period and then transitions to figures showing the average daily transit ridership.

### **FY2019 Regional Transit Performance Trends:**

- Almost half of all unlinked transit trips in Northern Virginia involve bus. VRE, with the lowest service levels still carries about seven percent of unlinked transit trips. Although transit ridership has been declining from an all-time high in 2008, it is starting to stabilize.
- Transit moves over a quarter million people on an average day in Northern Virginia. Although in recent years ridership has been declining from an all-time high, it is starting to stabilize, and individual systems are seeing small gains in ridership.
- Weekday ridership is influenced greatly by commuter travel. The weekday average ridership is greater than twice the Saturday or Sunday average ridership. Although ridership has been declining for weekdays and weekends, the weekday ridership ratio to weekend ridership has been increasing and reflects added reliability for weekday service.
- Virginia Railway Express continues to experience strong ridership and train utilization. The service – which operates on weekdays, primarily in the morning and evening commuter periods – carries close to 10 percent of the transit riders in Northern Virginia.
- Metrobus carries the majority of bus riders in Northern Virginia. Fairfax Connector carries approximately half as many riders and DASH a quarter of the Metrobus riders. Overall, bus in Northern Virginia has shown a decline in ridership from the a high in FY2015, but recent figures show a stabilizing of that trend with limited growth for some systems.

### **FY2019 System-Specific Performance Trends:**

- Unlike other bus systems in Northern Virginia, ART ridership peaked in FY2017. Current ridership levels show a return to earlier levels. Recent ridership numbers show modest growth and might represent an improving trend for the coming year.
- CUE ridership has been stabilizing since a high in 2015. GMU has added transit service for its students and faculty impacting CUE. As GMU continues to grow, with further outreach and coordination with the university CUE could see increased ridership.
- By the end of FY2019, DASH ridership was consistent to last year. The 2019 summer service shutdown on Metrorail impacted transit riders in Alexandria, and DASH ridership did decline towards the end of FY2019. DASH has the third largest bus ridership in Northern Virginia. Recent annual ridership trends show an overall stabilizing of the ridership.
- Fairfax Connector carries the second highest number of bus riders in Northern Virginia. Ridership was declining from FY2015, but recent trends show a stabilization of the

ridership. Fairfax County has the highest planned employment growth in Northern Virginia, and ridership will probably continue with the current trend of growth.

- Loudoun County Transit has experienced consistent ridership levels with only modest variation over the past five years. Recently monthly data shows an increase in ridership.
- Metrobus carries the majority of bus riders in Northern Virginia. Service and ridership have declined since FY2015, but recent trends show ridership stabilizing.
- OmniRide has shown a decline in riders, much of that is due to local service versus long haul commuter bus service. The ridership is starting to stabilize, with routes funded by Commuter Choice showing strong ridership numbers.

### **Regional Commuting Trends**

In addition to the data collected and presented by NVTC, the recent *Metropolitan Washington Council of Governments (MWCOC) State of Commute Survey (SOC)* found interesting trends that provide additional context to transit ridership in Northern Virginia. The impact of these trends can be seen in NVTC's ridership summary. These trends include:

- Fifty-eight percent of commuters drove alone to work. Although drive alone continued to be the most popular commute mode in the Washington metropolitan region, this mode share continued the long-term decline from 71 percent in 2004 to 58 percent in 2019. This represented a drop of 13 percentage points over the 15-year period.
- Transit was used for nearly one-quarter (24 percent) of weekly commute trips, four percentage points above the 2016 percentage (20.1 percent) and more than seven percentage points above the 16.8 percent mode share observed in the 2004 SOC survey. Biking/scooter/walking retained the 3.3 percent mode share estimated in 2016. The 4.6 percent carpool/vanpool mode share represented a continued decline from the peak 7.1 percent mode share estimated in the 2007 survey.
- Use of telework/compressed work schedules, which had increased in each of the previous surveys since 2004, leveled off in 2019 at 10 percent.
- About three-quarters of the 24 percent transit mode share in the Washington metropolitan area were in a train (17 percent Metrorail and two percent commuter rail). The remaining one-quarter of transit trips were made by bus.
- Ride-hail services, such as Uber, Lyft, and Via, accounted for one percent of weekly commute trips. Ride-hailing services are relatively new travel modes in the region but appear to be growing.

## Report Methodology and Notes

NVTC's previous *Regional Transit Performance Report* combined data from the quarterly transit ridership reports and the National Transit Database (NTD). While NTD data provides key transit performance metrics, including service efficiency and effectiveness, it typically lags behind NVTC's compilation of ridership data by 12 to 18 months. As a result, NVTC's Annual Transit Performance Report was presented more than a full year later than our readily available data. This new effort extracts out the ridership data separate from the NTD data so that staff can provide more timely reporting to the Commission. NVTC will still compile and report the NTD data to the Commission once the NTD data has been officially published by the Federal Transit Administration (FTA).

The Annual Transit Performance Report focuses on unlinked passenger trips or boardings, except in the case of Metrorail where station entries are used as a surrogate for train boardings. This is a weighted average of the ridership throughout the fiscal year. The ridership is weighted by the service provided, which acknowledges that weekday service is typically higher than weekend service.

The new report also reduces the number of tables and figures while focusing on what is important for understanding transit ridership in Northern Virginia.

The use of station entries as a metric might slightly underrepresent the number of unlinked passenger trips, which is the number of times a traveler boards a train. However, using the station entries greatly improves the accuracy of the reporting. The improved process still allows for trends to be understood and analyzed. This data is supplied monthly by WMATA.

Finally, this report starts at a very aggregated level focused on regional trends and continues to more disaggregated data showing station entries. All figures show a five-year time series. The data progresses from a regional level by mode to each individual provider. The figures should provide context on trends and allow for comparison across operators.

Except for the data provided by WMATA, the ridership for all other transit operators is obtained from the Virginia Department of Rail and Public Transportation's (DRPT) On-Line Grants Administration System (OLGA). It is important to note that each transit operator enters the data into OLGA and that the data is based on monthly total ridership, which includes both weekend and weekday service with no distinction between service levels. The benefit of using data from OLGA for this report, as well as the quarterly reporting, is that it ensures data consistency and allows NVTC staff to obtain the data seamlessly. To understand and provide context between the difference in average daily and average weekday ridership, page 17 in the attached report provides a definition the metrics used to define average daily, weekday, Saturday, and Sunday transit boardings.



**Metrorail Ridership by Station in Virginia**  
**4th Quarter FY2019**

Line/Station	Year	April	May	June	Q4 Total	Percent Change FY19 -18
Silver						
Greensboro	FY18	58,272	62,523	68,964	189,759	18%
	FY19	72,008	73,854	78,392	224,254	
McLean	FY18	84,728	89,787	97,154	271,669	25%
	FY19	108,474	112,887	117,010	338,371	
Spring Hill	FY18	58,792	62,325	67,432	188,549	7%
	FY19	63,072	63,836	74,318	201,226	
Tysons Corner	FY18	179,060	187,535	202,322	568,917	5%
	FY19	194,048	198,468	202,456	594,972	
Wiehle-Reston East	FY18	382,926	400,143	422,886	1,205,955	4%
	FY19	428,250	420,513	403,590	1,252,353	
Total	FY18	763,778	802,313	858,758	2,424,849	8%
	FY19	865,852	869,557	875,766	2,611,175	
Orange						
Dunn Loring	FY18	187,180	191,534	188,224	566,938	5%
	FY19	195,990	201,437	196,734	594,161	
West Falls Church	FY18	121,026	125,371	141,072	387,469	3%
	FY19	143,358	130,142	126,866	400,366	
Vienna	FY18	459,920	455,932	453,352	1,369,204	1%
	FY19	470,036	458,087	454,174	1,382,297	
Total	FY18	768,126	772,838	782,648	2,323,612	2%
	FY19	809,384	789,667	777,774	2,376,825	
Silver/Orange						
Ballston	FY18	449,728	455,720	461,534	1,366,982	9%
	FY19	497,592	494,710	492,200	1,484,502	
Clarendon	FY18	219,712	224,265	229,228	673,205	10%
	FY19	249,076	249,172	243,346	741,594	
Court House	FY18	324,330	322,387	329,766	976,483	3%
	FY19	339,674	341,190	328,352	1,009,216	
East Falls Church	FY18	202,456	206,715	214,720	623,891	0%
	FY19	208,888	209,856	205,886	624,630	
Rosslyn	FY18	651,496	657,432	678,344	1,987,272	6%
	FY19	711,756	698,928	687,774	2,098,458	
Virginia Square	FY18	181,386	185,477	194,066	560,929	7%
	FY19	202,414	199,831	196,510	598,755	
Total	FY18	2,029,108	2,051,997	2,107,658	6,188,763	6%
	FY19	2,209,400	2,193,687	2,154,068	6,557,155	

Source: WMATA. Ridership is based on station entries and exits



Line/Station	Year	April	May	June	Q4 Total	Percent Change FY19 -18
Blue						
Arlington Cemetery	FY18	112,570	109,719	109,402	331,691	-5%
	FY19	108,906	101,688	104,116	314,710	
Franconia Springfield	FY18	316,096	308,328	336,186	960,610	-40%
	FY19	342,180	236,874	0	579,054	
Van Dorn	FY18	125,696	129,961	127,976	383,633	-40%
	FY19	133,158	98,378	0	231,536	
Total	FY18	554,362	548,008	573,564	1,675,934	-33%
	FY19	584,244	436,940	104,116	1,125,300	
Yellow						
Eisenhower Avenue	FY18	95,660	98,440	99,556	293,656	-41%
	FY19	100,212	73,781	0	173,993	
Huntington	FY18	330,708	348,625	348,148	1,027,481	-42%
	FY19	339,842	257,068	0	596,910	
Total	FY18	426,368	447,064	447,704	1,321,136	-42%
	FY19	440,054	330,849	0	770,903	
Blue/Yellow						
Braddock Road	FY18	209,542	220,899	217,192	647,633	-38%
	FY19	231,554	171,590	0	403,144	
Crystal City	FY18	565,554	548,996	551,356	1,665,906	10%
	FY19	587,256	606,227	645,882	1,839,365	
King Street	FY18	376,158	380,500	383,692	1,140,350	-45%
	FY19	362,810	263,834	0	626,644	
National Airport	FY18	334,424	348,373	347,152	1,029,949	13%
	FY19	351,852	384,093	427,648	1,163,593	
Pentagon	FY18	598,734	646,120	613,572	1,858,426	16%
	FY19	629,882	697,828	823,336	2,151,046	
Pentagon City	FY18	647,830	658,461	672,456	1,978,747	3%
	FY19	695,208	683,951	665,264	2,044,423	
Total	FY18	2,732,242	2,803,348	2,785,420	8,321,010	-1%
	FY19	2,858,562	2,807,522	2,562,130	8,228,214	
Total Virginia Stations	FY18	7,273,984	7,425,567	7,555,752	22,255,303	-3%
	FY19	7,767,496	7,428,222	6,473,854	21,669,572	

Source: WMATA. Ridership is based on station entries and exits







# FY2019 Annual Transit Performance Report

Northern Virginia Transportation Commission

October 3, 2019

# FY2019 Annual Transit Performance Report

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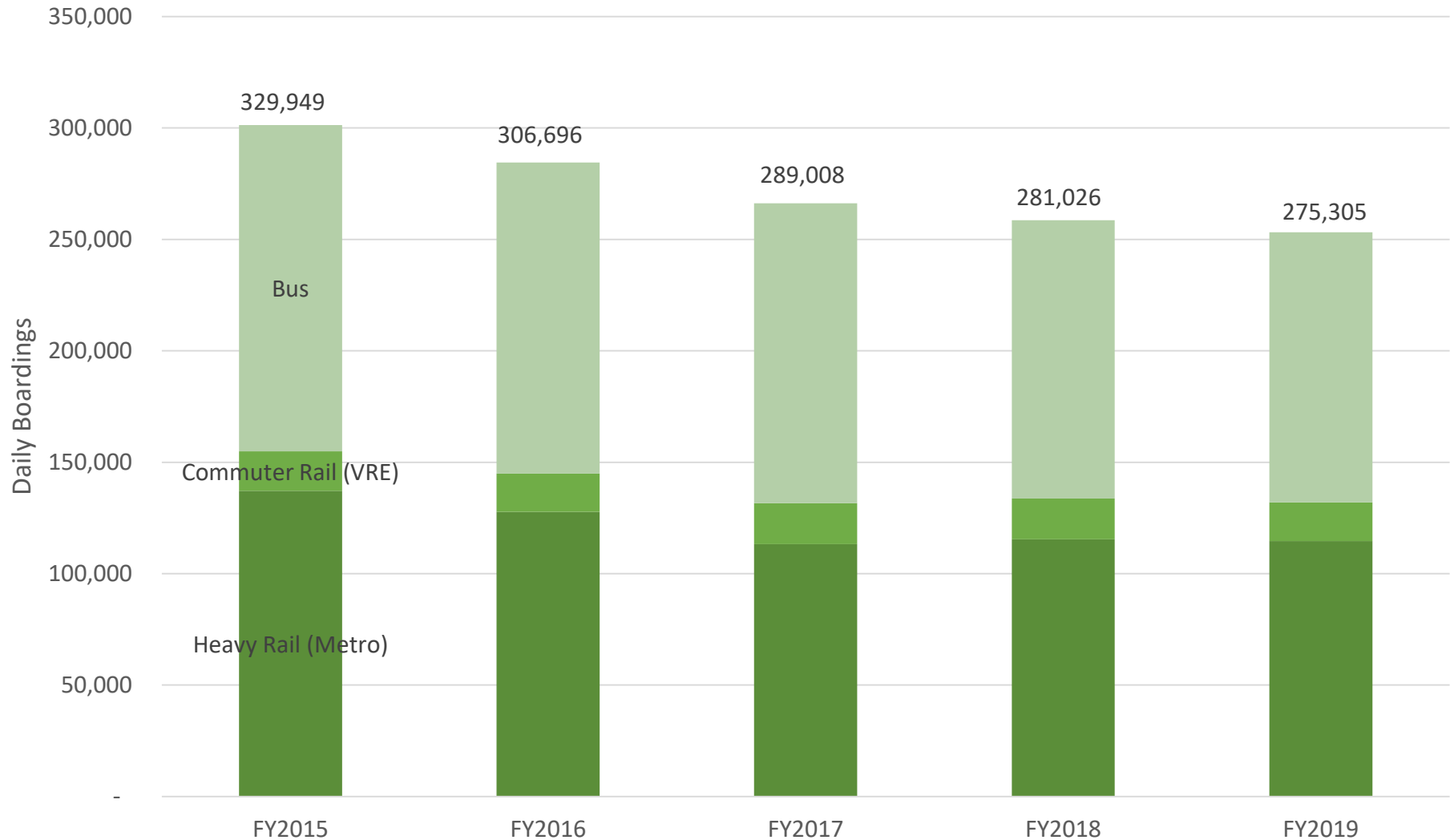
**Figure 1: Northern Virginia Annual Transit Boardings (All Modes),  
FY2015 - FY2019**

*Almost half of all unlinked transit trips in Northern Virginia involve bus. VRE, with the lowest service levels still carries about seven percent of unlinked transit trips. Although transit use has been declining from an all-time high, it is starting to stabilize.*



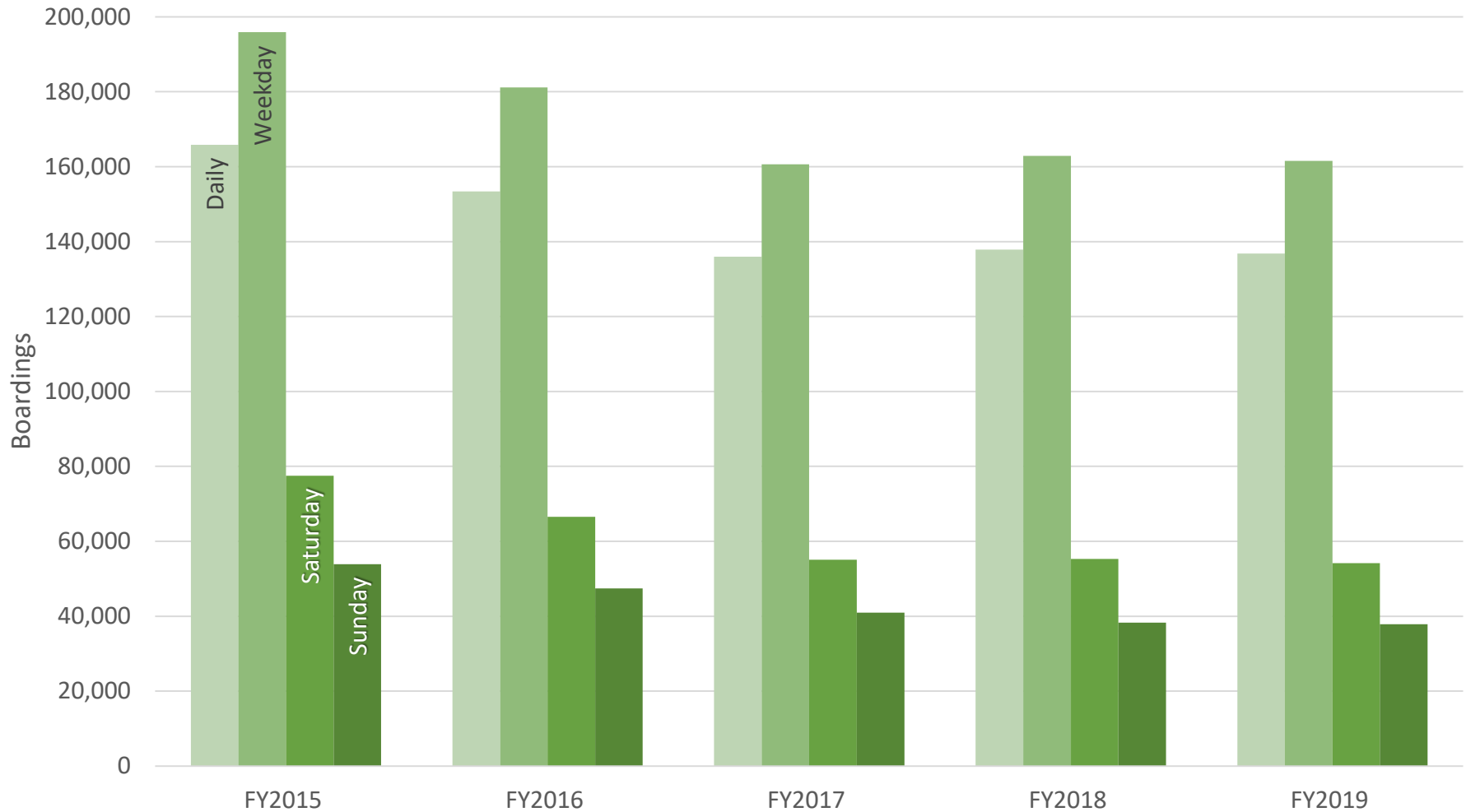
**Figure 2: Northern Virginia Average Daily Transit Boardings (All Modes),  
FY2015- FY2019**

*Transit moves over a quarter million people on an average day in Northern Virginia. Although in recent years ridership has been declining from an all-time high, it is starting to stabilize and individual systems are seeing small gains in ridership.*



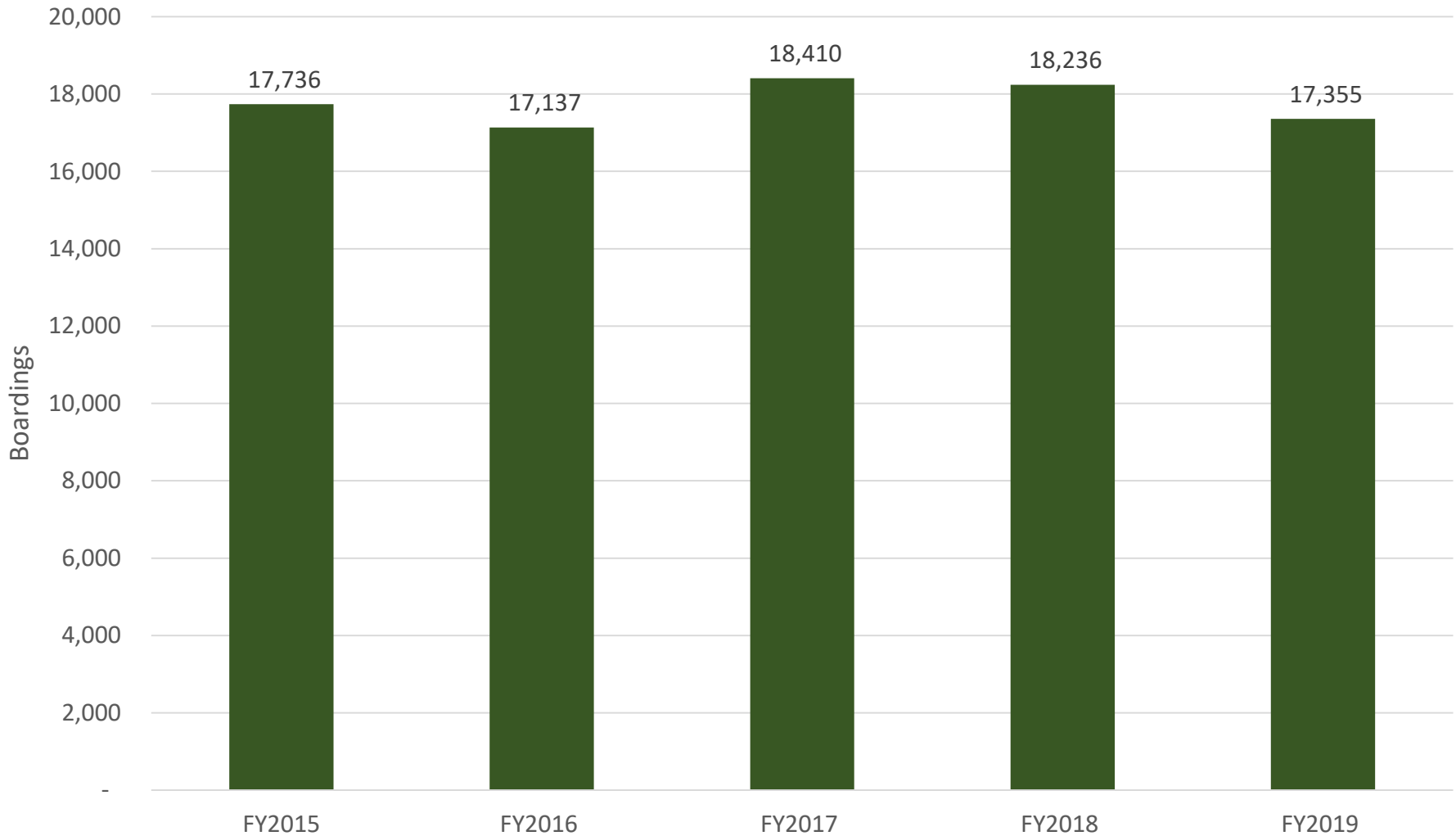
**Figure 3: Northern Virginia Metrorail, Average Transit Boardings  
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*Weekday ridership is influenced greatly by commuter travel. The weekday average ridership is greater than twice the Saturday or Sunday average ridership. Although ridership has been declining for weekdays and weekends, the weekday ridership ratio to weekend ridership has been increasing and reflects added reliability for weekday service.*



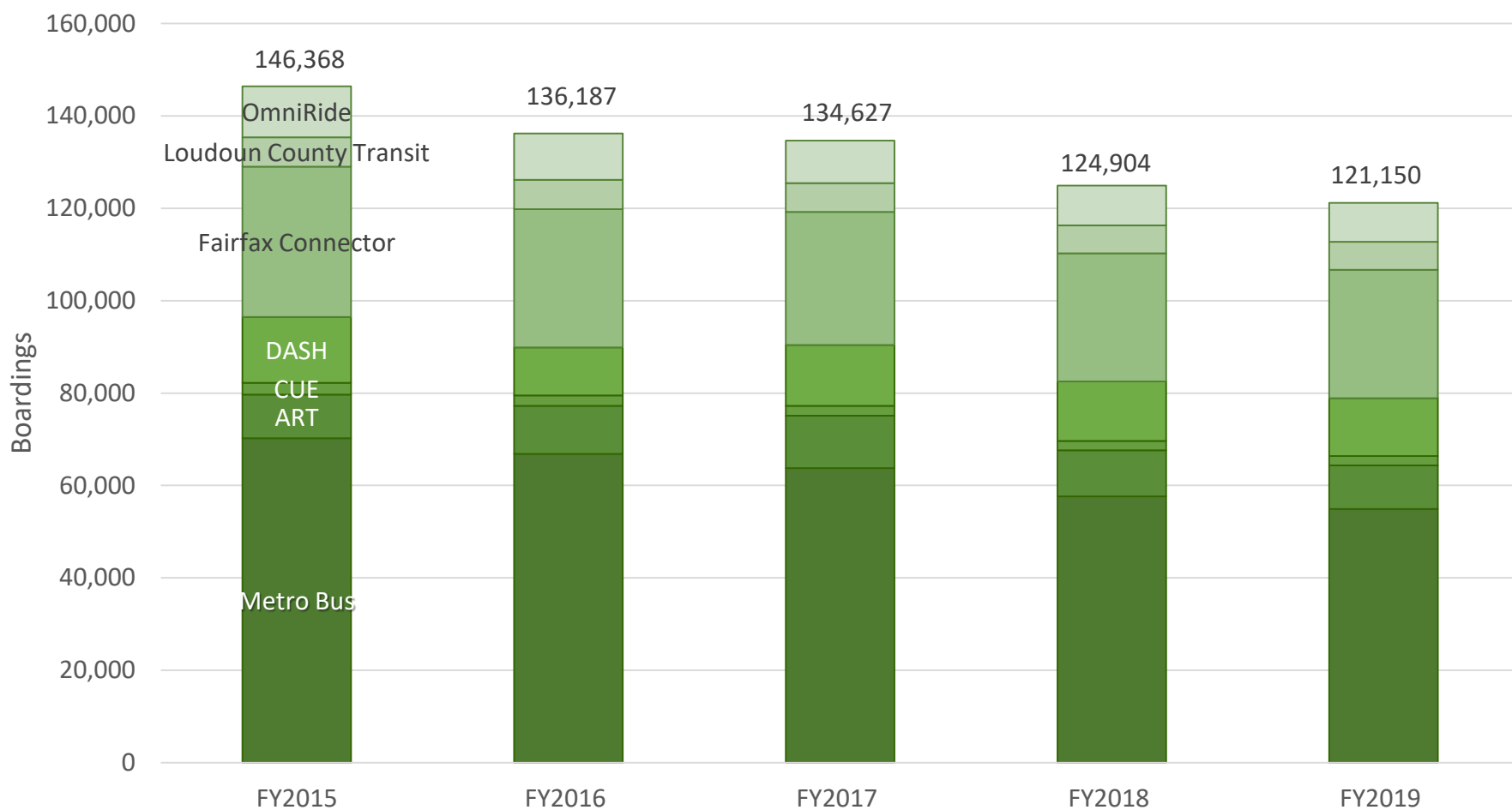
## Figure 4: Virginia Railway Express (VRE) Average Daily Boardings, FY2015 - FY2019

*Virginia Railway Express continues to experience strong ridership and train utilization. The service – which operates on weekdays, primarily in the morning and evening commuter periods – carries close to 10 percent of the transit riders in Northern Virginia.*



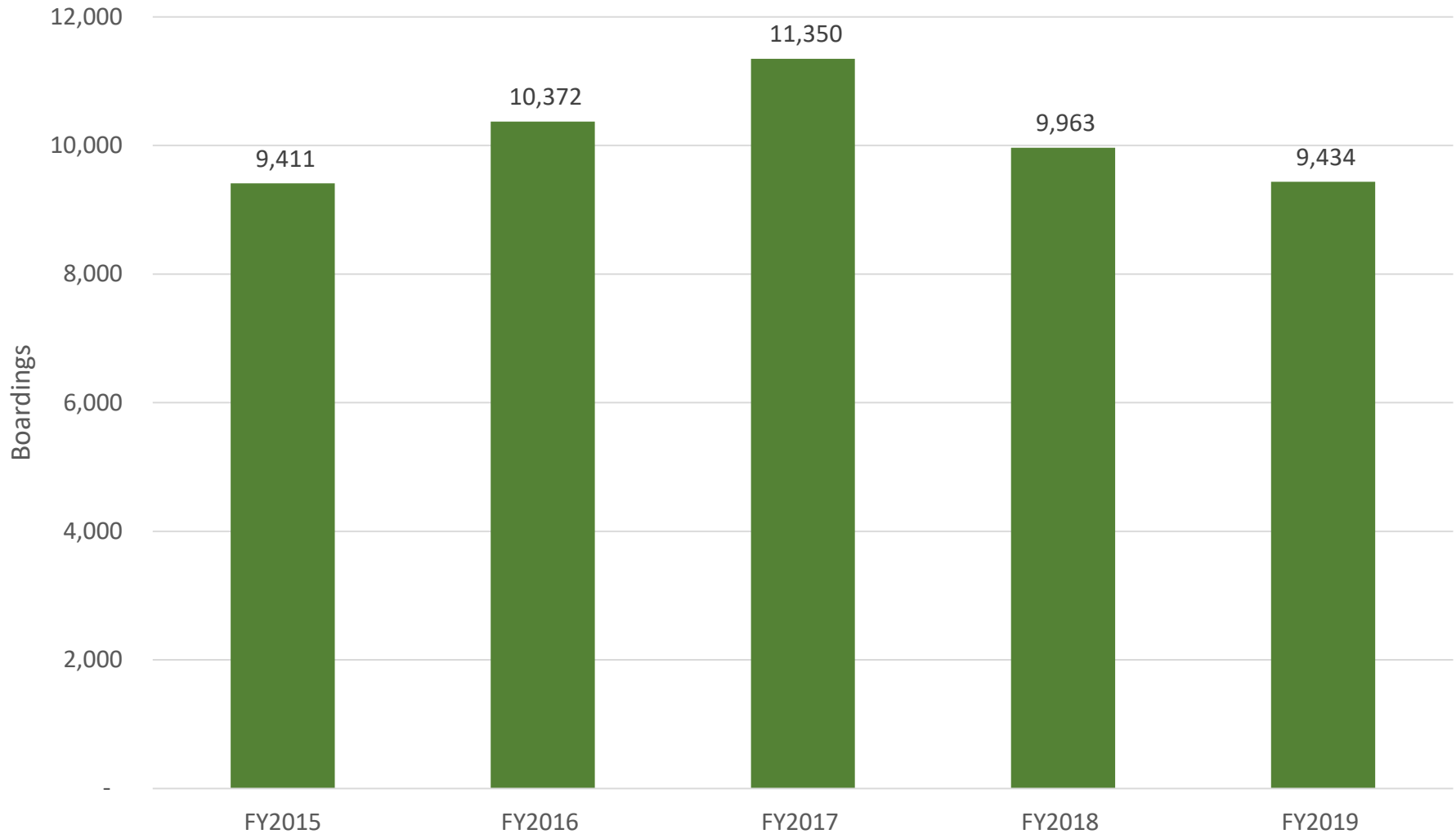
**Figure 5: Northern Virginia Average Daily Bus Boardings, FY2015 - FY2019**

*Metrobus carries the majority of bus riders in Northern Virginia. Fairfax Connector carries approximately half as many riders and DASH a quarter of the Metrobus riders. Overall, bus in Northern Virginia has shown a decline in ridership from the a high in FY2015, but recent figures show a stabilizing of that trend with limited growth for some systems.*



**Figure 6: ART Average Daily Boardings, FY2015 - FY2019**

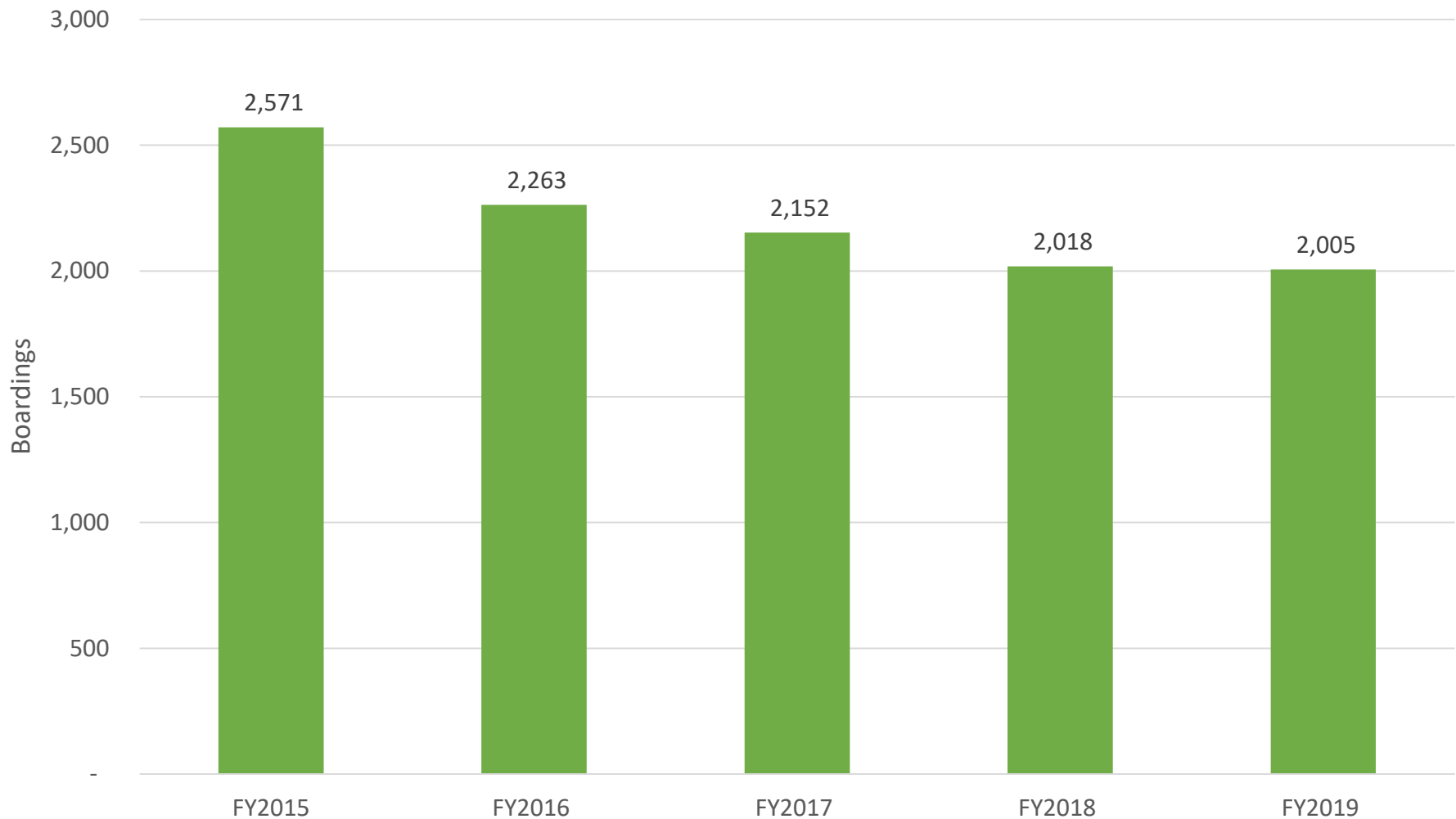
*Unlike other bus systems in Northern Virginia, ART ridership peaked in FY2017. Current ridership levels show a return to earlier levels. Recent ridership numbers show modest growth and might represent an improving trend for the coming year.*





**Figure 7: CUE Bus Average Daily Boardings, FY2015 - FY2019**

*CUE ridership has been stabilizing since a high in 2015. GMU has added transit service for its students and faculty impacting CUE. As GMU continues to grow, with further outreach and coordination with the university CUE could see increased ridership.*



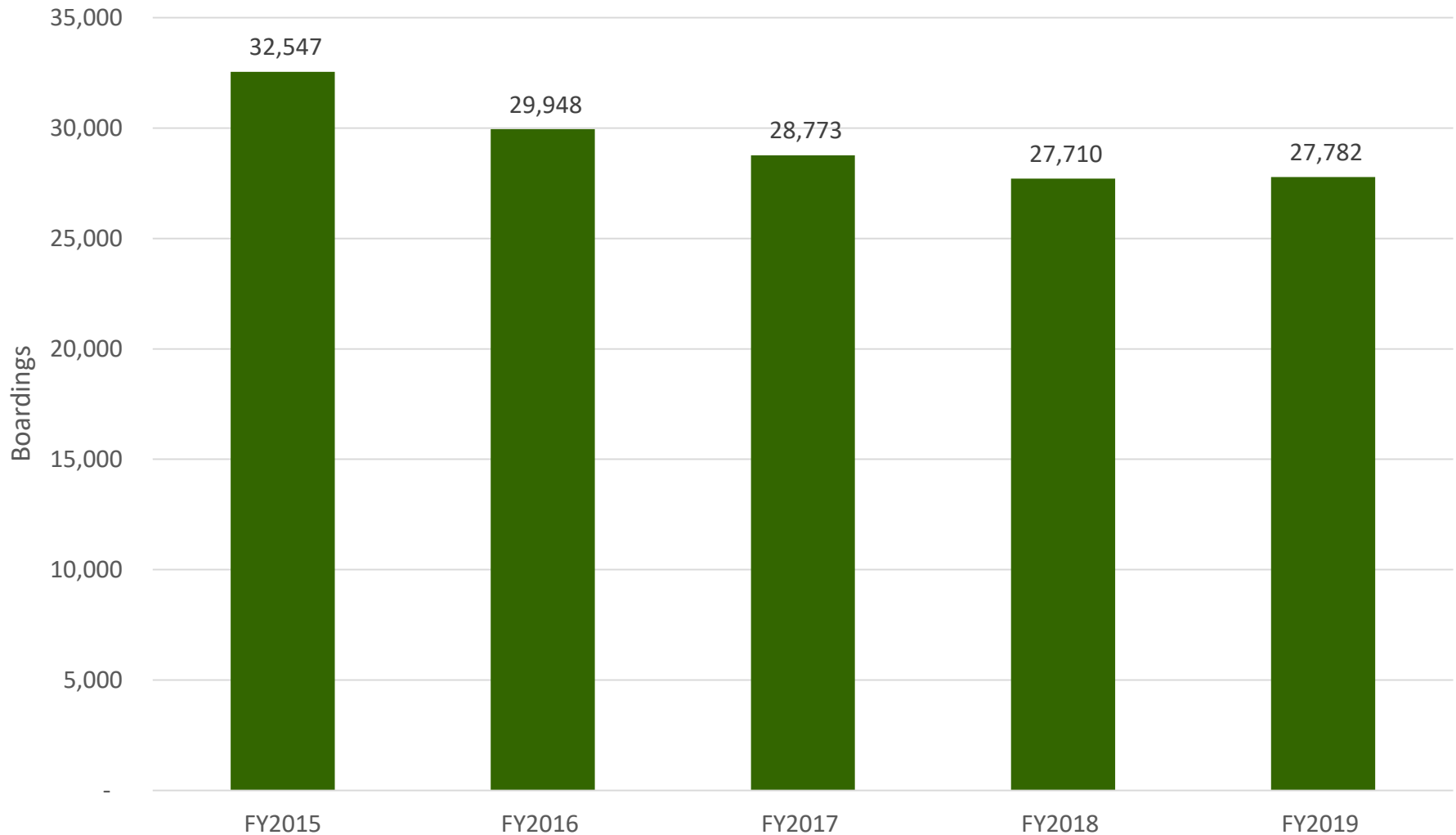
**Figure 8: DASH Average Daily Boardings, FY2015 - FY2019**

*By the end of FY2019, DASH ridership was consistent to last year. The 2019 summer service shutdown on Metrorail impact transit riders in Alexandria, and DASH ridership did decline towards the end of FY2019. DASH has the third largest bus ridership in Northern Virginia. Recent annual ridership trends show an overall stabilizing of the ridership.*



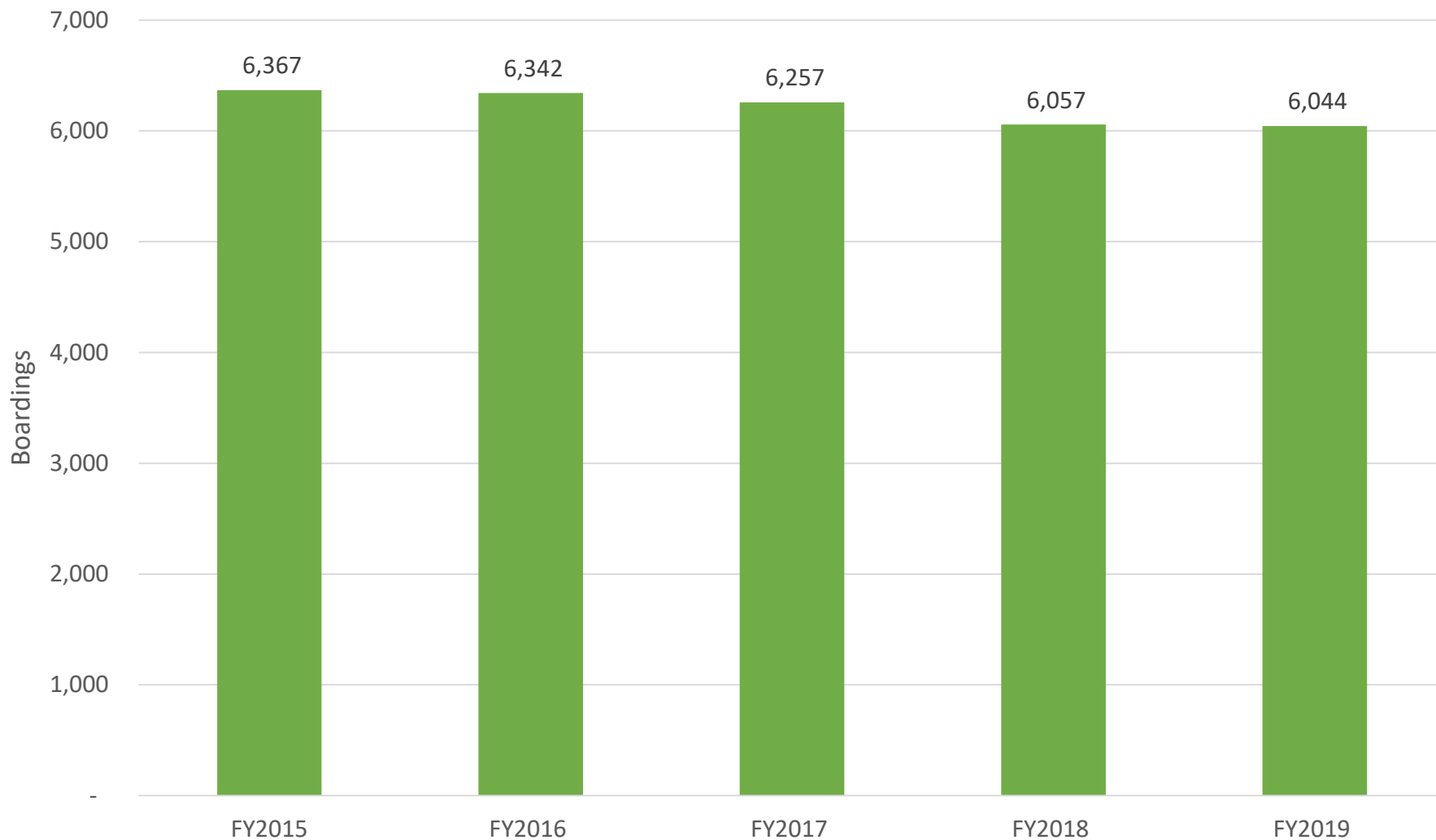
## Figure 9: Fairfax Connector Average Daily Boardings, FY2015 - FY2019

*Fairfax Connector carries the second highest number of bus riders in Northern Virginia. Ridership was declining from FY2015, but recent trends show a stabilization of the ridership. Fairfax County has the highest planned employment growth in Northern Virginia, and ridership will probably continue with the current trend of growth.*



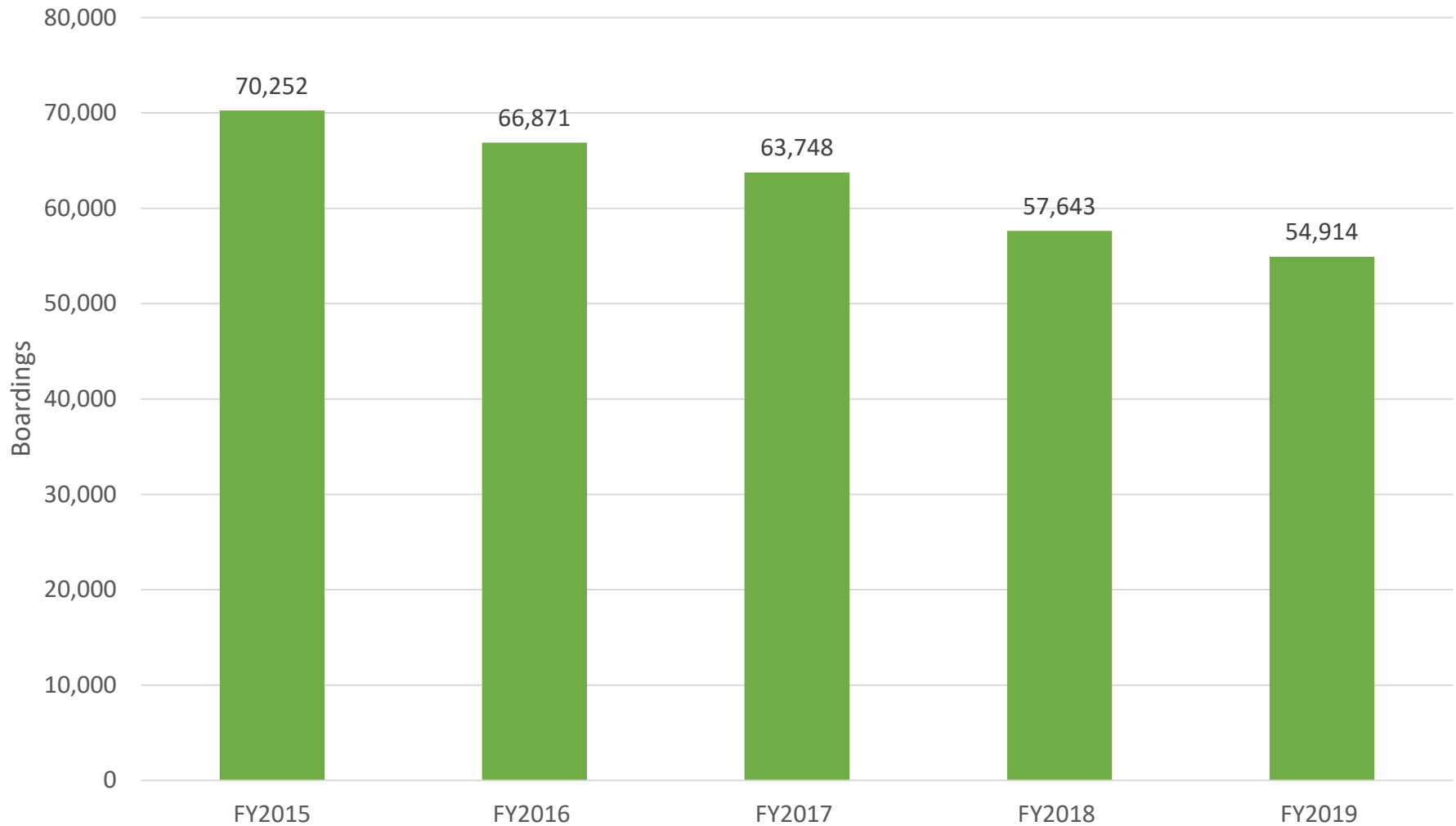
**Figure 10: Loudoun County Transit Average Daily Boardings, FY2015 - FY2019**

*Loudoun County Transit has experienced consistent ridership levels with only modest variation over the past five years. Recently monthly data shows an increase in ridership.*



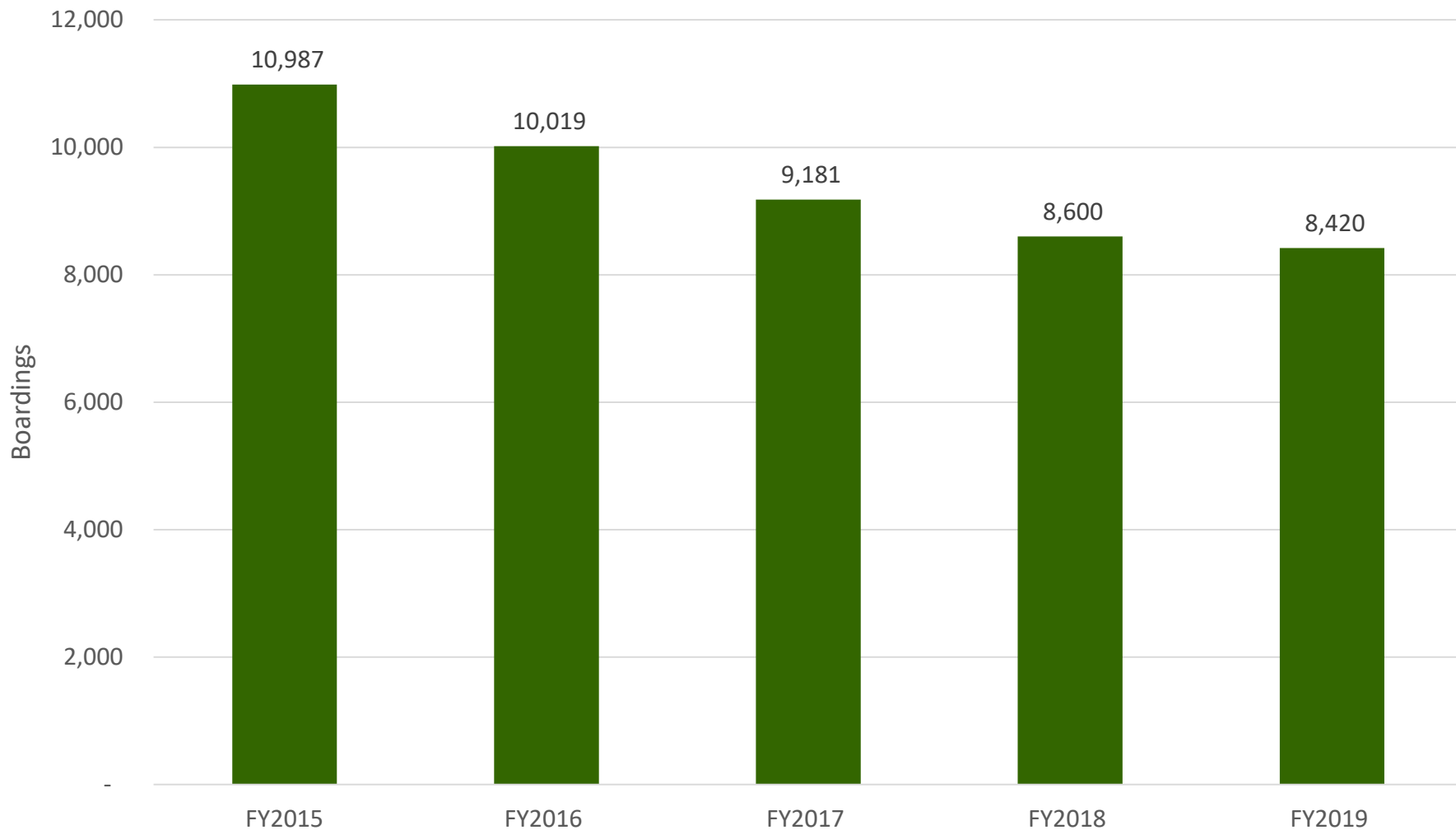
## Figure 11: Northern Virginia Metrobus Average Daily Boardings, FY2015 - FY2019

*Metrobus carries the majority of bus riders in Northern Virginia. Service and ridership have declined since FY2015, but recent trends show ridership stabilizing.*



**Figure 12: OmniRide Average Daily Boardings, FY2015 - FY2019**

*OmniRide has shown a decline in riders, much of that is due to local service versus long haul commuter bus service. The ridership is starting to stabilize, with routes funded by Commuter Choice showing strong ridership numbers.*



**Figure 13: Northern Virginia Metrorail, Average Transit Boardings by Station;  
(Weekday/Saturday/Sunday), FY2018 - FY2019, Arlington and Alexandria Stations**

Station	FY2018			FY2019		
	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday
<b>Stations in Alexandria</b>						
Blue/Yellow Line Stations						
Braddock Road	4,135	1,410	918	3,826	1,401	899
Van Dorn Street	2,539	927	534	2,265	777	456
Eisenhower Avenue	1,771	726	440	1,585	612	368
King Street	6,742	3,563	2,544	5,679	2,700	1,915
<b>Total Alexandria:</b>	<b>15,187</b>	<b>6,626</b>	<b>4,435</b>	<b>13,355</b>	<b>5,490</b>	<b>3,638</b>
<b>Stations in Arlington</b>						
Orange/Silver Line Stations						
East Falls Church	3,907	1,608	1,005	3,813	1,594	1,004
Ballston	9,005	3,155	1,892	9,232	3,276	1,957
Virginia Square	3,670	1,143	688	3,793	1,279	784
Clarendon	4,187	1,830	1,138	4,478	2,051	1,283
Courthouse	6,379	2,176	1,302	6,349	2,283	1,396
Rosslyn	12,626	4,292	3,317	13,059	4,487	3,597
Blue/Yellow Line Stations						
Arlington Cemetery	1,206	1,871	1,493	1,086	1,699	1,407
Pentagon	13,286	1,425	1,016	13,785	1,230	989
Pentagon City	12,035	6,824	4,553	12,133	7,069	4,572
Crystal City	10,516	3,725	2,526	10,847	3,634	2,605
National Airport	5,539	3,803	4,756	5,715	3,865	4,944
<b>Total Arlington:</b>	<b>82,357</b>	<b>31,851</b>	<b>23,685</b>	<b>84,290</b>	<b>32,468</b>	<b>24,537</b>

**Figure 14: Northern Virginia Metrorail, Average Transit Boardings by Station;  
(Weekday/Saturday/Sunday), FY2018 - FY2019, Fairfax County Stations**

Station	FY2018			FY2019		
	Weekday	Saturday	Sunday	Weekday	Saturday	Sunday
<b>Stations in Fairfax County</b>						
Orange Line Stations						
Vienna	8,956	3,281	1,853	8,686	3,393	1,918
Dunn Loring	3,715	1,297	748	3,720	1,316	760
West Falls Church	2,396	746	446	2,463	773	435
Blue/Yellow Line Stations						
Huntington	6,730	2,342	1,499	5,832	1,872	1,188
Franconia-Springfield	5,891	2,771	1,592	5,172	2,237	1,269
Silver Line Stations						
Wiehle Reston East	7,415	3,027	1,987	7,650	3,100	2,009
Spring Hill	1,145	542	336	1,139	547	348
Greensboro	1,247	355	200	1,415	372	211
Tysons Corner	3,347	2,053	1,259	3,507	2,154	1,296
McLean	1,740	436	245	2,081	478	265
<b>Total Fairfax County:</b>	<b>42,582</b>	<b>16,849</b>	<b>10,166</b>	<b>41,664</b>	<b>16,243</b>	<b>9,700</b>



# Definition of Metrics

- **Average Weekday Boardings:**

- The sum of the times a person enters a transit vehicle or station during a non-holiday weekday throughout the year divided by the number of non-holiday weekdays during the year.

- **Average Saturday or Sunday Boardings:**

- The sum of the times a person enters a transit vehicle or station during a Saturday or Sunday service level day throughout the year divided by the number of Saturday or Sunday service level days during the year.

- **Average Daily Boardings:**

- The sum of the times a person enters a transit vehicle or station during the year divided by a weighted average of service days during that year.
- The mathematical equation used for this analysis was:

$$\begin{aligned} \text{Average Daily Boardings} = & (\text{number of weekdays}) \times (\text{annual weekday boardings}) \\ & + (\text{number of Saturdays}) \times (\text{annual Saturday boardings}) \times 0.5 \\ & + (\text{number of Sundays \& holidays}) \times (\text{annual Sunday \& holiday boardings}) \times 0.3 \end{aligned}$$

0.5 represent the difference in weekday to Saturday service levels

0.3 represents the difference in weekday to Sunday and Holiday service levels