

SMART BOARD OF DIRECTORS RIDERSHIP DATA COLLECTION & REPORTING

January 8, 2020



SMART Riders: More than 1.7 million strong



Plus:

- Over 165,000 bikes
- Over 6,000 wheelchairs



Serving Marin and Sonoma County Residents

We are proud to help Marin and Sonoma County residents have access to jobs, schools, businesses and major centers of commerce.



WHO ARE SMART'S CORE RIDERS?...

- **85% are Weekday Riders**
- 15% are Weekend/Holiday Riders
- 9.8% bring Bicycles onboard

ANNUAL RIDERSHIP – 3 WAYS OF LOOKING AT IT

- Fiscal Year (July 1– June 30)*
- Calendar Year (January 1 – December 31)
- SMART “Start of Service” Year (August 25 – August 24)

**Standard public transit agency practice to use Fiscal Year for reporting.*

- Average Weekday Ridership is the standard used to determine commute impacts.
- SMART’s Average Weekday Ridership does not include Holiday service that falls on a weekday and cancelled days due to fires.

SMART RIDERSHIP GROWING

	Total Annual	Year 1	Year 2	Year 3*	Year 3: 12 mo. Projection**
June 30 - July 1	Fiscal Year	636,029	716,847	313,365	734,768
Jan 1 - Dec 31	Calendar Year	289,506	717,021	659,714	717,561
Aug 25 - Aug 24	Start of Service Year	721,790	706,188	201,052	723,843

*PARTIAL YEAR - Data as posted through November 30, 2019.

** Projections based on actuals to date, WITHOUT Larkspur, Downtown Novato, or New Service Schedule.

Average Weekday Riders	Year 1	Year 2	Year 3*	Year 3 v. Year 2
Fiscal Year	2,256	2,420	2,583	+6.7%
Calendar Year	2,266	2,357	2,471	+4.8%
Start of Service Year	2,301	2,407	2,656	+10.3%

Daily Riders not always the same people.

- 11,500 separate people paid to ride SMART in a month (Sept. 2019)



SMART RIDERSHIP GROWING

- For a full 3 year comparison of ACTUAL ridership, we only have three months - September, October and November (2017, 2018 AND 2019).
 - Weekday (core) ridership and total ridership grew.

		TOTAL	Average Weekday	Average Weekend/Holiday
YEAR 1	Sep 2017 - Nov 2017	178,597	2,230	1,492
YEAR 2	Sep 2018 - Nov 2018	180,580	2,488	908
YEAR 3	Sep 2019 - Nov 2019	185,162	2,645	951

Year 3 vs. Year 2

+2.5%

+6.3%

+4.7%



SMART RIDERSHIP GROWING

- CONCLUSION – In every way of looking at the data, SMART's Average Weekday Ridership is growing every year.
- SMART is serving Weekday Commuters and SMART's core mission.
- Using standard Fiscal Year numbers with projection, SMART on target to grow 16% over 3-year period.

***AND NOW COMES LARKSPUR, DOWNTOWN NOVATO, and
NEW EXPANDED SERVICE SCHEDULE.....***



SMART TRAIN & LARKSPUR FERRY CONNECTION

- New Expanded SMART service schedule to Larkspur Ferry launched January 1, 2020
 - First post-holiday commuter weekday Monday, January 6
- Initial data suggests daily Larkspur Station ridership in the first days of service already higher than ridership projections
 - Passenger daily boarding range 207-406, including Weekend/Holiday service.
- Too soon to make more detailed conclusions – January ridership analysis available by the end of February

HOW SMART COLLECTS RIDER DATA

Two main types of transit systems:

Closed Transit System
versus

Open Platform Transit System

OPEN PLATFORM VS. CLOSED SYSTEM

- CLOSED SYSTEM Fare Collection
 - Electronic or Human Gatekeeper controls access
 - Example = BART, Golden Gate Bus, Golden Gate Ferry
 - Every Rider Counted



OPEN PLATFORM VS. CLOSED SYSTEM

- OPEN PLATFORM Fare Collection
 - No gates and no staff controls access
 - Example = SMART & Caltrain
 - Relies on passenger actions for accuracy
 - Clipper Tag On/Tag Off
 - Mobile App Activation
 - Proof of Payment on board

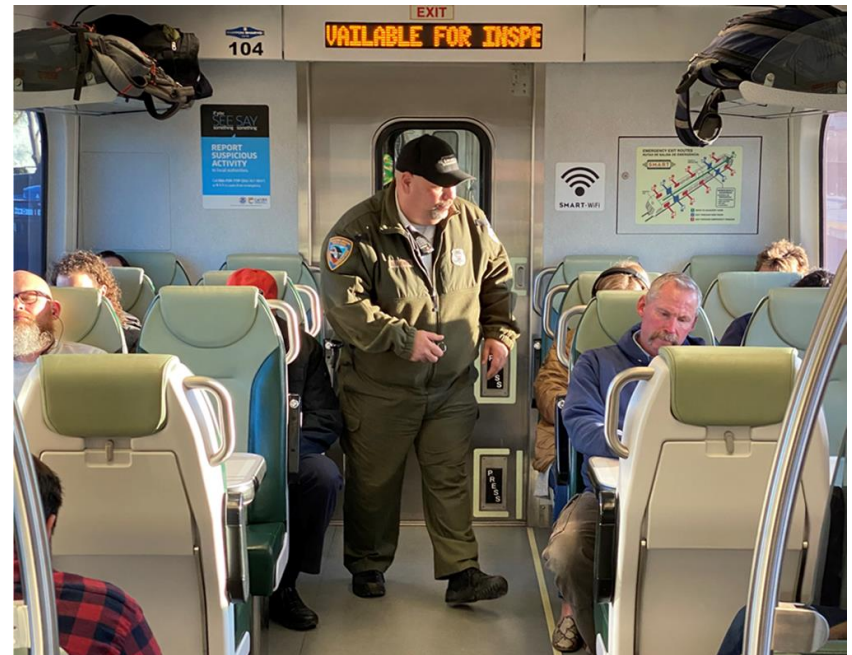


RIDERSHIP – DATA COLLECTION METHODS

- SMART still developing three ridership data collection methods
 - On Board Manual Counts
 - Paid Fare Media Ridership Reports
 - National Transit Database (NTD) Ridership Surveys
- By comparison, Caltrain has three ridership collection methods
 - Annual System Census in February
 - Paid Fare Media Reports
 - NTD Rider Surveys

RIDERSHIP – DATA COLLECTION METHODS

- On Board Manual Counts
 - Engineer/Conductor Counts
 - Since start of SMART service – Consistent
 - Daily Counts that enable development of trend tracking over time
 - Captures passengers who are NOT captured by paid fare reporting (detail next slide)



RIDERSHIP – DATA COLLECTION METHODS

■ On Board Manual Counts

■ Captures ALL Riders including

- Free Fare service days (29 free days to date)
 - Tubbs/Kincade Fire free fare periods
 - SMART 1-Year Anniversary
 - Thanksgiving Weekend 2019
- Promotional free programs
 - Veterans & Active Duty Military Families Ride Free (Memorial & Veterans Day Weekends)
 - Kids Ride Free Weekends/Holidays Summer 2019
 - Post-Tubbs Fire community & business relief passes (10,000)
 - 1 millionth rider milestone
 - 100,000 bicycles milestone
- Kids Under 5 Free
- Riders who fail to Tag On/Off or Activate their Mobile App ticket

■ Captures Bicycles and Wheelchairs



RIDERSHIP – DATA COLLECTION METHODS

- Paid Fare Media Ridership Reports
 - Clipper card & Mobile App = Paid Fare Riders



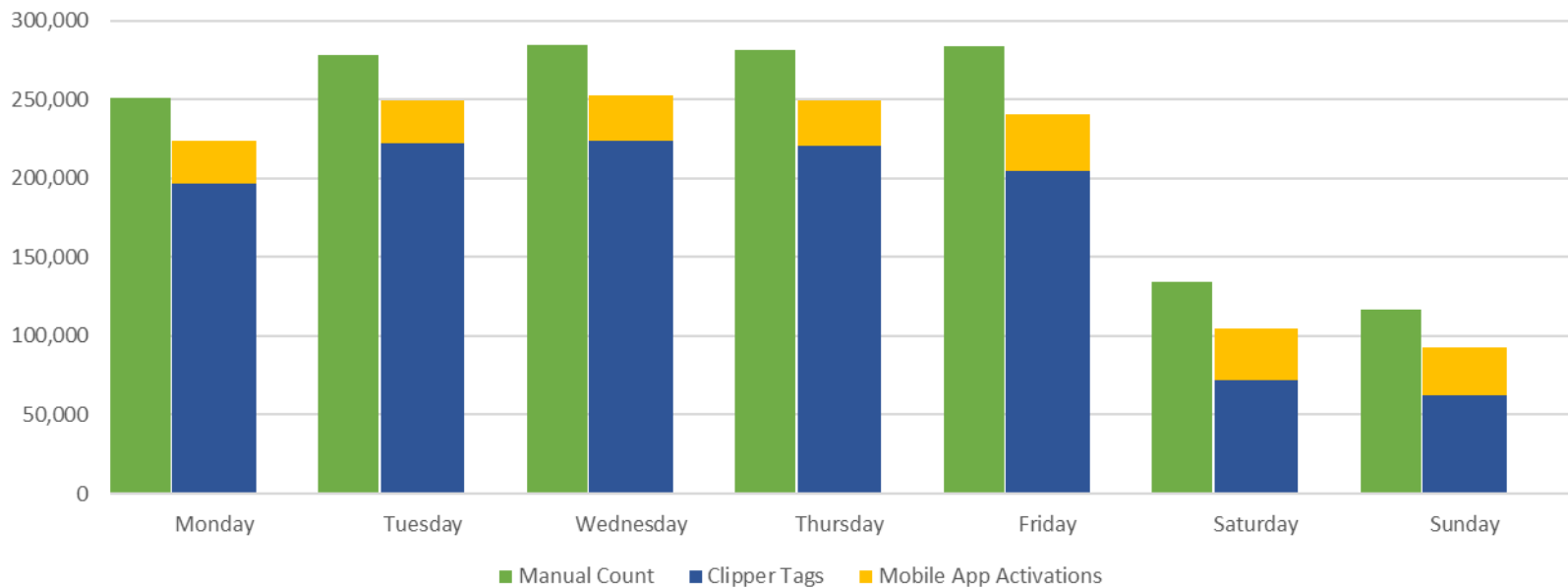
RIDERSHIP – DATA COLLECTION METHODS

- Paid Fare Media Ridership Reports
 - Not consistent data since start of service
 - Clipper Reports didn't include station data until 2/2018, 6 months after start of service
 - Dependent on rider behavior
 - 13% using Clipper users fail to Tag Off
 - 13% using Mobile App users fail to “Activate” ticket
 - 31-day & Eco Pass holders activate pass on first trip and then pass is “Valid” for 31 days
 - Fare evasion rates in Bay Area estimated at 2-10%
 - Doesn't count Free Fare riders and Kids Under 5 Free

RIDERSHIP – DATA COLLECTION METHODS

On Board Manual Count vs. Paid Fare Media Ridership

Overall Passenger Counts



RIDERSHIP – DATA COLLECTION METHODS

- National Transit Database (NTD) Ridership Surveys
 - Federal Transit Administration (FTA) requires ridership reporting into the NTD
 - FTA requires an additional method of data collection for Open Platform transit systems using statistical sampling
 - SMART's contractor submitted a final annual report on December 20, 2019, of a partial year of Quarterly counts, validating SMART's methodology
 - SMART is working with NTD & FTA on translating this first report from a partial year sampling to a full Fiscal Year

RIDERSHIP DATA – CALIBRATION & ANALYSIS

- Each of the three methods of SMART's Ridership Data Collection has its limitations
- However, looking at Ridership Data with the three different lenses provides a more robust picture and offers the ability to analyze trends over time

RIDERSHIP ANALYSIS – NEXT STEPS

- ALL THREE ridership tracking methods need to be calibrated against each other and against daily events over time to create usable analysis for policy decisions
- ALL THREE ridership tracking methods are not instantly available, unlike in BART's closed system
 - On Board Manual Counts require several days
 - Paid Fare Media Ridership take up to 2 weeks before staff are able to begin analysis
 - NTD Ridership Survey reports are finalized every year and translation into NTD reports can take an additional 12+ months.

HOW IS RIDERSHIP INFORMATION USED

- Fiscal Year (July 1 – June 30) annual totals and monthly totals reported to NTD
- Annual totals (by Fiscal Year) included as part of SMART's annual financial audits
- Fiscal Year totals of ridership is transit industry standard as it allows for decisions as part of annual budget process
- Average Weekday ridership by Fiscal Year is transit industry standard as it allows policy makers to gauge commute period impact



HOW IS RIDERSHIP INFORMATION USED

- What information is helpful for policy decisions?
 - Tracking trends Year-over-Year smooths extreme results created by individual events out
 - Example: SMART's single day 1-Year Anniversary Ridership was double the average Weekend/Holiday ridership to date
 - Tracking trends Month-over-Month smooths out differences in weather and seasonal shifts
 - Example: Comparing November 2019 to November 2018 yields useful trend information, instead of comparing July 2019 (no school in session) to October 2019 (school in session).

SMART'S RIDERSHIP: ANY TRENDS THIS EARLY IN OUR EXISTENCE?

- SMART is only 2.5 years old, during this 2.5 years we had 2 major wildfires, 2 large floods, mass evacuations, power shutoffs lasting many days, the turmoil these created in people's lives and commute patterns, the loss of 6,000 homes, and the significant impact to the local economies of Sonoma and Marin Counties

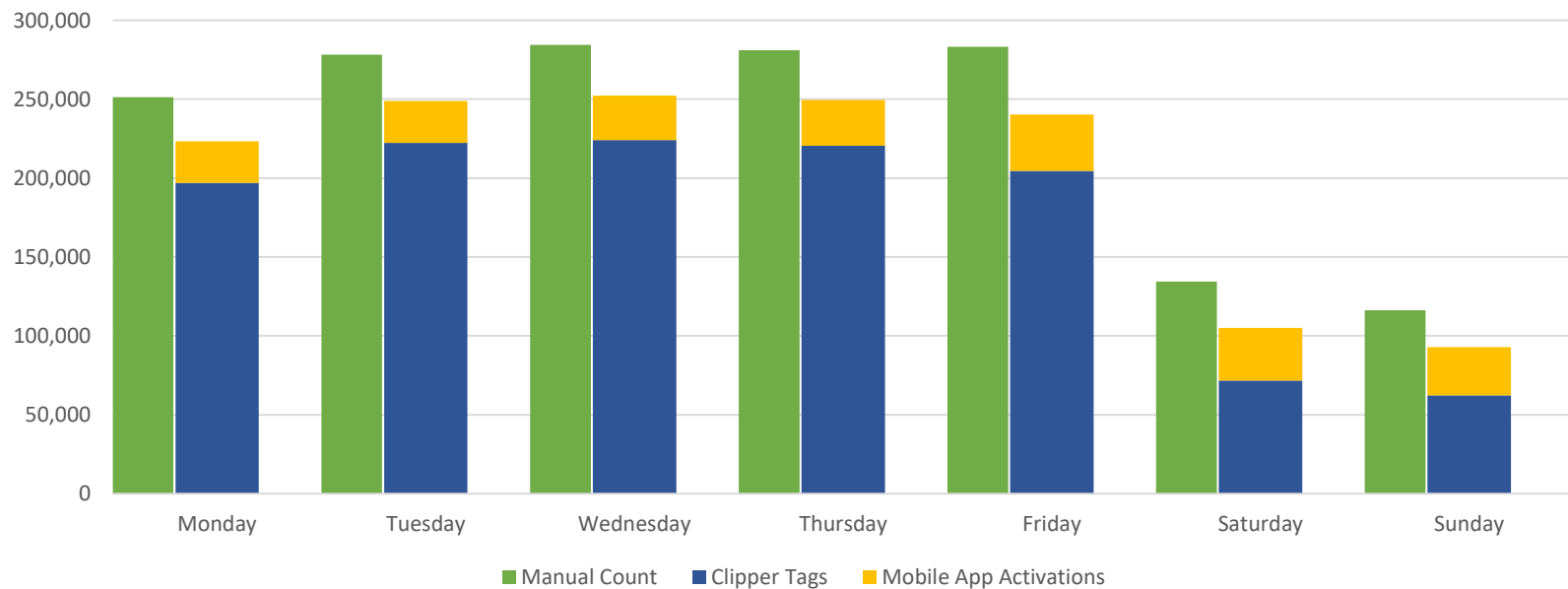
SMART'S RIDERSHIP: ANY TRENDS THIS EARLY IN OUR EXISTENCE?

TOTAL ANALYSIS (AUG 25, 2017 - NOV 30, 2019)										
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total	TOTAL BIKES	TOTAL WHEELCHAIRS
Total Manual Count	251,263	278,218	284,504	280,978	283,262	134,510	116,295	1,629,030	159,653	6,087
Total Paid Fare Count	223,407	248,967	252,196	249,434	240,246	105,040	92,861	1,412,151		
Clipper Tags	196,896	222,246	224,108	220,622	204,600	71,732	62,392	1,202,596		
Mobile App Activations	26,511	26,721	28,088	28,812	35,646	33,308	30,469	209,555		

- Wednesdays are the highest ridership weekday.
- Weekends are lower than weekdays.
- Bicycles are carried onboard by approximately 10% of riders.

SMART'S RIDERSHIP: ANY TRENDS THIS EARLY IN OUR EXISTENCE?

Overall Passenger Counts

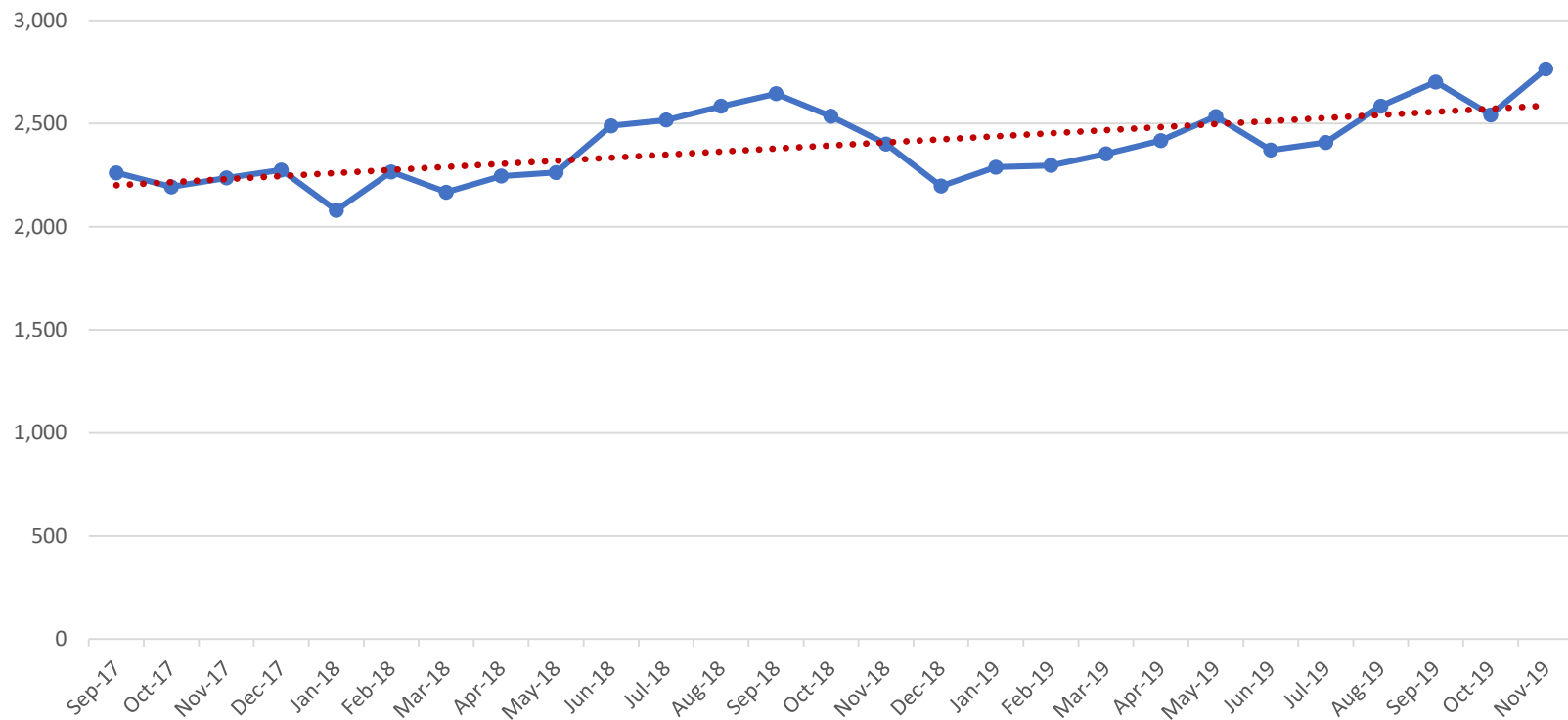


- Mobile App users travel most on Fridays and are 1/3 of fares on weekends, indicating higher % of infrequent or tourist riders.
- Sonoma County Tourism negatively impacted by Fires & PGE Power shut offs every year.



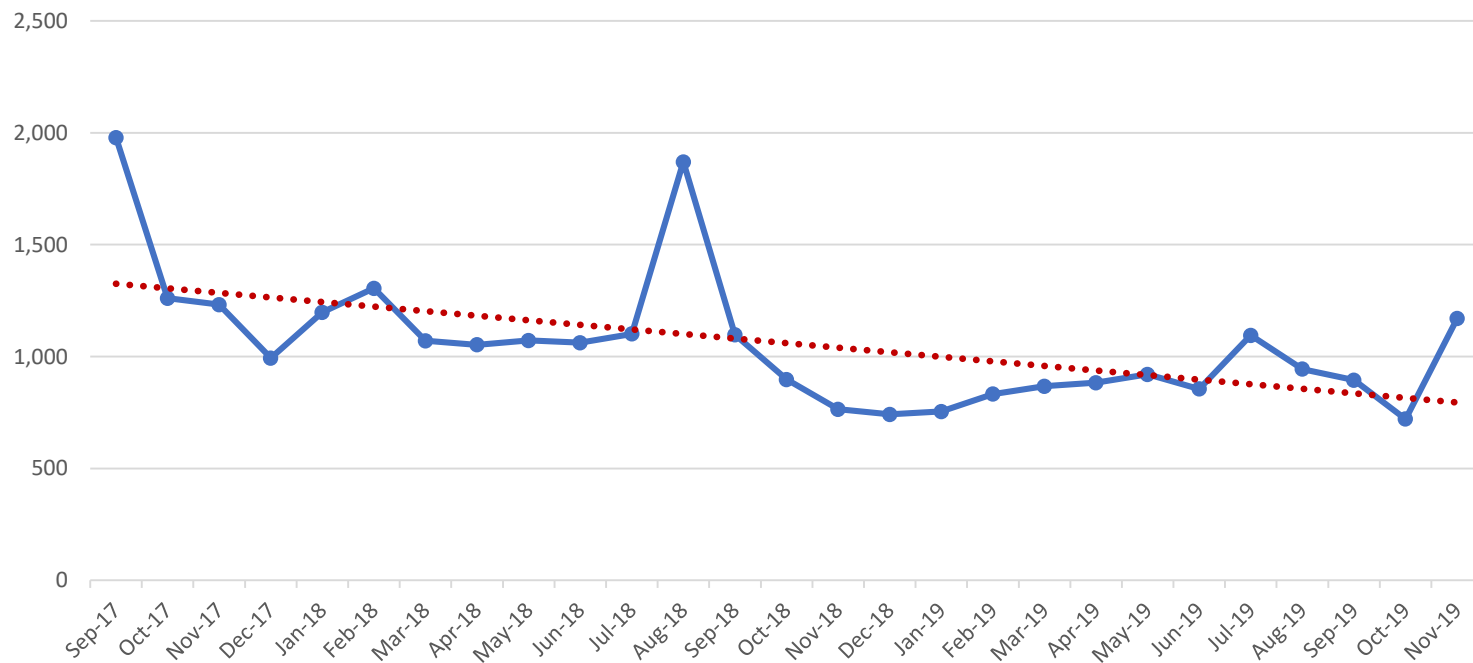
SMART'S RIDERSHIP: ANY TRENDS THIS EARLY IN OUR EXISTENCE?

Monthly Weekday Average (Manual Count)



SMART'S RIDERSHIP: ANY TRENDS THIS EARLY IN OUR EXISTENCE?

Monthly Weekend/Holiday Average (Manual Count)



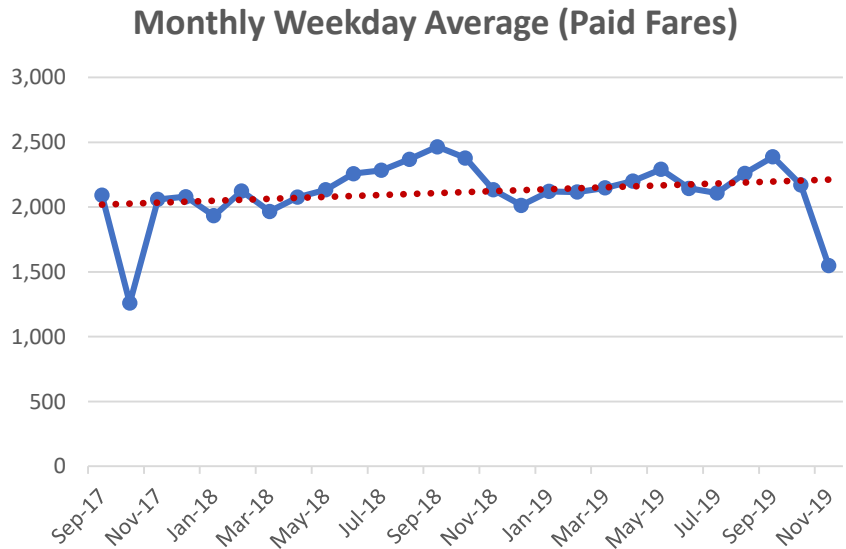
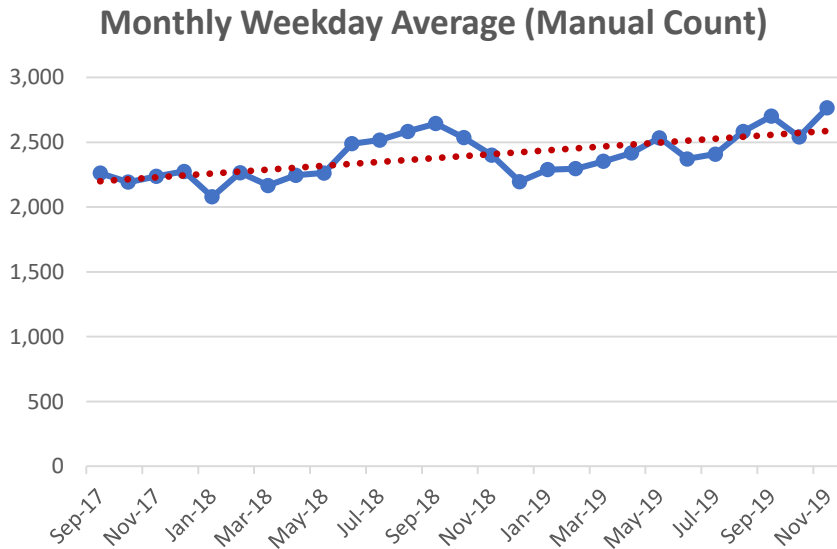
Sept. 2017 skews first year higher as people sampled the system.

August 2018 Free Fare Day skews August 2018 results.

Looking at longer term trends is more meaningful.



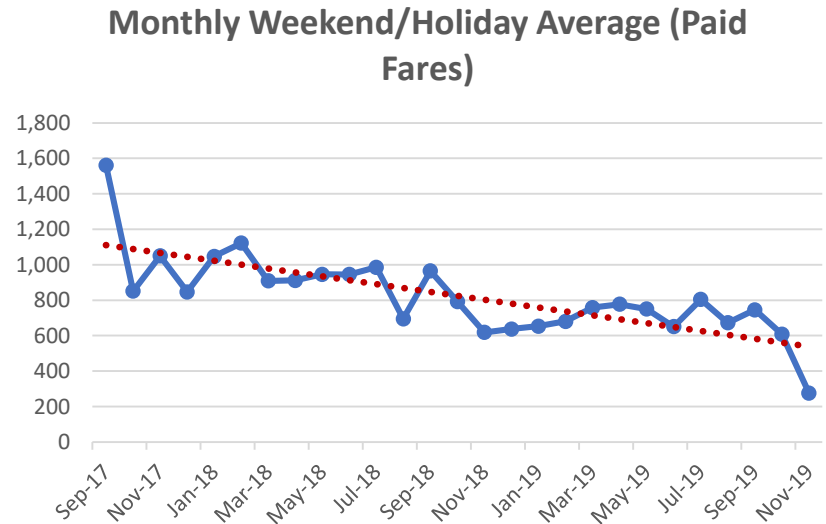
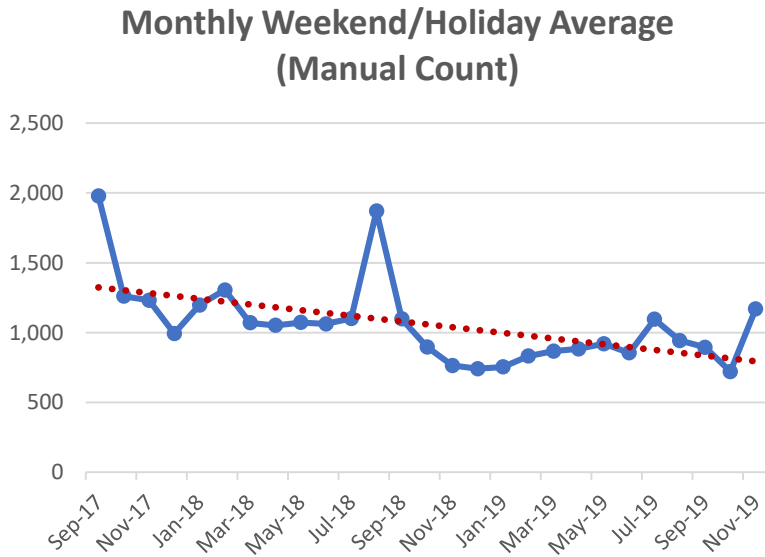
SMART'S RIDERSHIP: ANY TRENDS THIS EARLY IN OUR EXISTENCE?



Free Fare days result in significant drop in Paid Fare ridership.
On Board Manual Counts not subject to the same variability.



SMART'S RIDERSHIP: ANY TRENDS THIS EARLY IN OUR EXISTENCE?



Weekend/Holiday ridership trend downward in FY19 with rebound in FY20.
 Sonoma County Tourism negatively impacted by Fires & PGE Power Shut Offs each year.
 Jan 2020 new service schedule earlier on weekends in response to public comments.



SMART'S RIDERSHIP: WHAT DOES THE FUTURE HOLD?

- New Service Schedule, Larkspur Station/Larkspur Ferry connection and Downtown Novato impacts won't be calibrated and analyzed until March 2020.
 - Larkspur anticipated to boost ridership, including weekends
- Windsor Station will have rider impacts in relative near term
- Starting a transit service usually takes some time before ridership builds & Other Transit agencies went through the same infancy period.
 - BART carried 4% of what they carry now when they began service.
 - Larkspur Ferry carried half of what they carry today when they were two years old.

SMART'S RIDERSHIP: WHAT WILL FUTURE MONTHLY REPORTS TO THE BOARD INCLUDE?

- We've reported ridership at every public web streamed board meeting in the aggregate.
- We will continue to post the raw On Board Manual Counts & Paid Fare Media Ridership on our website within 30 days of the close of every month.
- Going forward we would like feedback about what data we should be reporting to you given what we are now able to collect and analyze

SMART'S RIDERSHIP: WHAT WILL FUTURE MONTHLY REPORTS TO THE BOARD INCLUDE?

Sample Monthly Board Report: Key Ridership Statistics

November 30, 2019

1. Cumulative From Start Of Service August 2017:

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
Total Manual Count	251,263	278,218	284,504	280,978	283,262	134,510	116,295	1,629,030
Total Paid Fare Count	223,407	248,967	252,196	249,434	240,246	105,040	92,861	1,412,151

Bicycles Carried to Date: 159,653

Wheelchairs to Date: 6,087

2. Fiscal Year-To-Date:

November 2019 Report*		
	November	Year To Date
Total Ridership (Manual)	64,966	313,365
Total Ridership (Paid)	32,458	244,837
Average Weekday Ridership (Manual)	2,765	2,583
Average Weekday Ridership (Paid)	1,548	2,104
Average Weekend/Holiday Ridership (Manual)	1,131	1,010
Average Weekend/Holiday Ridership (Paid)	276**	610**
Total Bicycles Onboard	6,902	37,013
Total Wheelchairs Onboard	277	1,133

*Data subject to revision due to calibration with ongoing additional ridership analyses.

** Weekend Paid Counts significantly affected by free service days

CONCLUSION - SMART RIDERSHIP GROWING

- In every way of looking at the data, SMART's Average Weekday Ridership is growing every year.
- SMART is serving more Weekday Commuters each year and SMART's core mission provides a green alternative to sitting in rush hour traffic.

***AND NOW COMES LARKSPUR, DOWNTOWN NOVATO, and
NEW SERVICE SCHEDULE.....***

For More Information

<http://sonomamarintrain.org/RidershipReports>

