Bus Operations Performance Measurements

Report





Second Quarter Fiscal Year 2019-20

About This Report

The Orange County Transportation Authority (OCTA) operates a countywide network of 60 routes including local, community, rail connector, and express bus routes serving over 5,000 bus stops known as OC Bus. OCTA also operates paratransit service (OC ACCESS), a shared-ride program available for people unable to use the standard OC Bus service because of functional limitations. OC Bus service is provided through both direct operations by OCTA referred to as directly operated fixed-route (DOFR) and contracted operations referred to as contracted fixed-route (CFR). The OC ACCESS service is a contract-operated demand-response service required by the Americans with Disabilities Act that is complementary to the fixed-route service and predominately accounts for the overall paratransit services operated by OCTA. These services make up the bus transit system and are evaluated by the performance measurements summarized in this report.

This report tracks bus system safety, as measured by vehicle accidents; courtesy, as measured by customer complaints; and reliability, as measured by on-time performance (OTP) and miles between road calls (MBRC). Along with these metrics, industry-standard measurements are tracked to assess OCTA bus operations; these measurements include ridership, productivity, farebox recovery ratio (FRR), and cost per revenue vehicle hour (RVH). Graphs accompany the details of each indicator showing the standards or goals and the values for the current reporting period. The following sections provide performance information for OC Bus service, DOFR and CFR, and OC ACCESS service.

FY2019-20 Q2 SUMMARY

- Safety:
 - o DOFR -
 - o CFR -
 - OC ACCESS ▼
- Courtesy:
 - o DOFR -
 - CFR -
 - OC ACCESS ▲
- On-Time Performance (OTP):
 - DOFR -
 - CFR -
 - OC ACCESS ▼
- Miles Between Road Calls (MBRC):

- O DOFR -
- CFR -
- OC ACCESS ▲

Safety: Preventable Vehicle Accidents

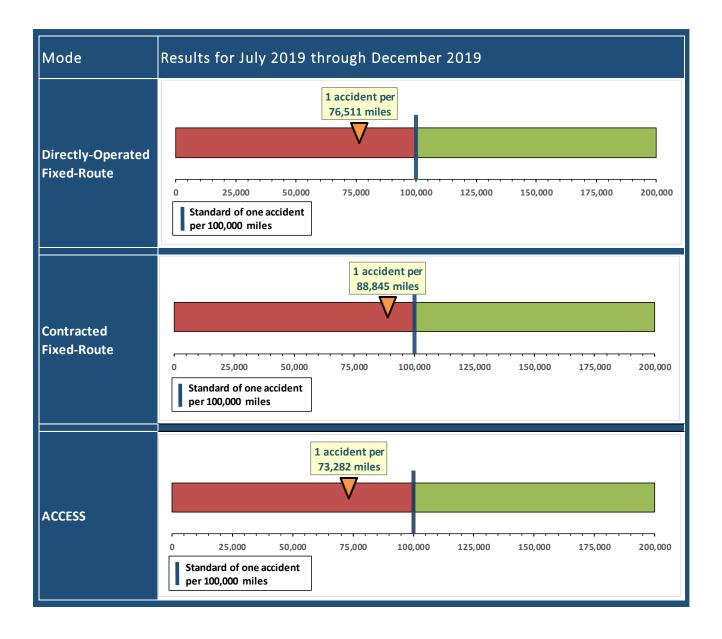
OCTA is committed to the safe delivery of the OC Bus service. The safety standard for DOFR, CFR, and OC ACCESS services is no more than one vehicle accident per 100,000 miles. Preventable vehicle accidents are defined as incidents when physical contact occurs between vehicles used for public transit and other vehicles, objects, or pedestrians, and where a coach operator failed to do everything reasonable to prevent the accident.

Through the second quarter of fiscal year (FY) 2019-20, all modes of service performed below the safety standard, operating less than 100,000 miles between preventable accidents.

DOFR OC Bus service experienced an increase in preventable accidents, including fixed-object and stationery (parked) vehicle collisions, and passenger falls. Comparing the performance over the first two quarters of FY 2019-2020 with the same time last year, the rate of preventable accidents among coach operators increased by 51.6 percent. In reviewing the data available, more accidents are occurring with new coach operators with one year of service or less. Specifically, the number of preventable accidents among coach operators in this group increased from nine preventable accidents to 39, an increase of more than 400 percent. Over the last year, OCTA has aggressively recruited more coach operators, allowing Operations to increase the number of assignments and reduce scheduled overtime in operator assignments. Other elements of the recruiting process, the coach operator training program, and ongoing accident reduction efforts are also being evaluated to identify other opportunities to improve safety performance. Concurrently with these efforts, OCTA Operations staff will continue to focus on and stress the importance of safety, conduct safety-related campaigns, and promote the safe driving award program.

CFR OC Bus service performance did improve during the second quarter, though performance remained below the standard through the first half of the fiscal year. Between the months of October and December, the number of preventable accidents reported by the contractor decreased by 44 percent. Each month, a comprehensive safety campaign is conducted on a different topic using a variety of communication methods including posters, safety messages, hands-on training, and discussions at monthly safety meetings by the CFR management.

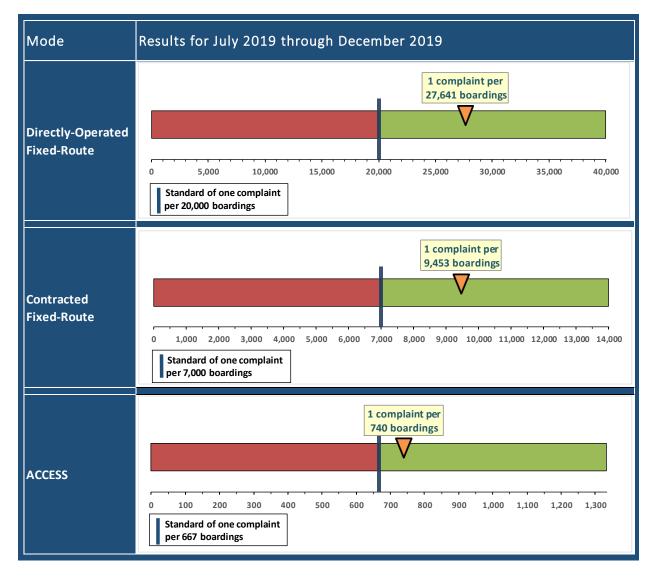
For OC ACCESS, an increase in fixed object and curb strikes, a total of 15 and 17 respectively, along with the typical collisions with side mirrors, resulted in overall performance below standard. The contractor is taking steps to address the increase including having the Regional Director of Safety for Southern California onsite during February 2020 to review the safety program and ensure safety initiatives are being implemented. The contractor's safety initiatives include improving the retraining process used for all coach operators experiencing preventable accidents, and using knowledge gained from preventable accident investigation and retraining to develop concentrated messaging and additional training to reduce/eliminate similar accidents in the future.



Courtesy: Customer Complaints

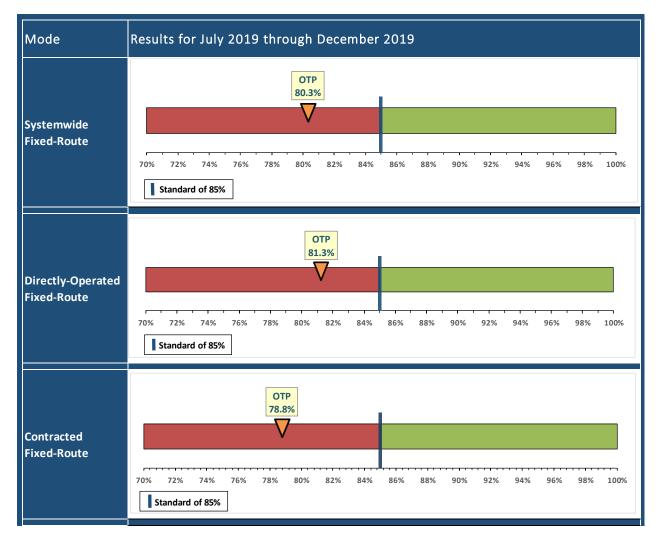
OCTA strives to achieve a high level of customer satisfaction in the delivery of OC Bus services. The performance standard for customer satisfaction is courtesy as measured by the number of valid complaints received. Customer complaints are the count of incidents when a rider reports dissatisfaction with the service. The standard adopted by OCTA for DOFR OC Bus is no more than one customer complaint per 20,000 boardings; the standard for CFR OC Bus service is no more than one complaint per 7,000 boardings; and the contractual standard for OC ACCESS is no more than one complaint per 667 boardings.

Through the second quarter of FY 2019-20, all modes of service continue to perform well, exceeding the courtesy standard with less than one valid complaint per 20,000, 7,000, and 667 boardings, respectively.



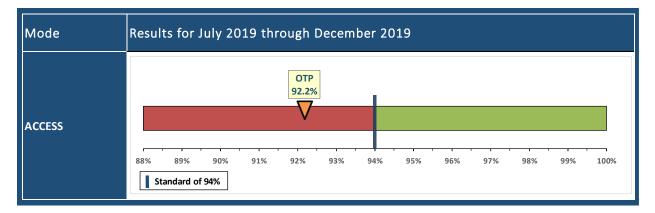
Reliability: On-Time Performance

Reliability is vital to a successful transportation network. Reliability for OCTA is measured in part by OTP. OTP is a measure of performance which evaluates the schedule adherence of a bus operating in revenue service according to a published schedule. Schedule adherence is tracked by monitoring the departure of vehicles from time points, which are designated locations on a route used to control vehicle spacing as shown in the published schedule. For OC Bus service, a trip is considered on-time if it departs the time point no more than five minutes late. OCTA's fixed-route system standard for OTP is 85 percent. For OC ACCESS service, OTP is a measure of performance evaluating a revenue vehicle's adherence to a scheduled pick-up time for transportation on a demand response trip. A trip is considered on-time if the vehicle arrives within a 30-minute window. The OC ACCESS OTP standard is 94 percent. Both OC Bus and OC ACCESS failed to meet the standard through the second quarter, with OTP rates of 80.3 percent and 92.2 percent, respectively.



OTP for the DOFR OC Bus service through the second quarter was at 81.3 percent, a 0.4 percent increase from last quarter but 1.6 percent lower than the same time last year. Contributing factors to the drop in OTP continue to be traffic associated with construction projects. The increase in road improvement projects throughout the service area has intensified local traffic and required the need for more short and long-term detours compared to the same period last year.

The OTP for the CFR OC Bus service through the second quarter was 78.8 percent, a 0.3 percent drop from last quarter and 1.9 percent lower than the same time last year. The contractor's shortage in coach operators continued to have impacts on the contractor as field supervisors were often deployed to operate vacant assignments rather than focus on service performance.



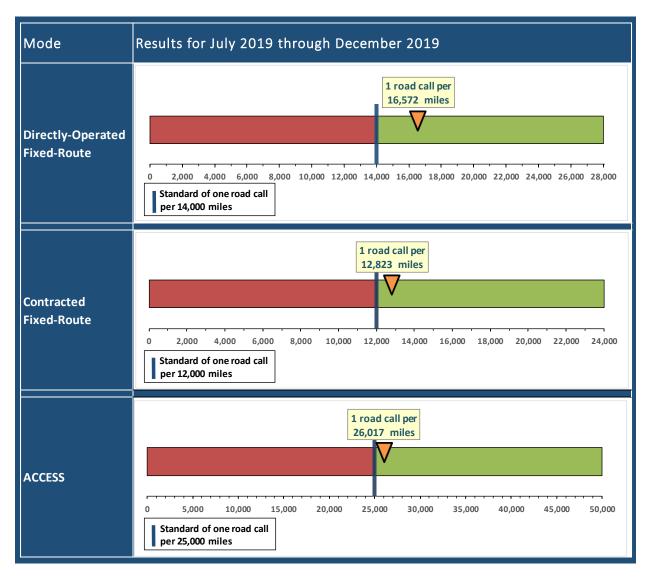
OTP for OC ACCESS service (Primary Service and Supplemental Taxi) for the second quarter was 92.2 percent, 1.8 percent below the standard, 0.4 percent lower than last quarter, and 1.1 percent lower than the 93.3 percent reported during the same period last year.

With the ratification of the Collective Bargaining Agreement (CBA) for contractor drivers operating OC ACCESS service making ground by generating an increase in applications and drivers hired, the contractor also evaluated subscription trip routing/scheduling for individuals traveling to day programs, which generates a significant number of the weekday trips provided during the peak period with the goal of better using vehicle and operator resources, improving the customer experience, and improving overall system performance. In most cases, the subscription trips going to day program locations have been in place for more than five years and have not been adjusted to consider current traffic conditions or ensure efficient routing is still in place given that riders on each route may have changed overtime.

OCTA staff will continue to monitor service delivery to ensure contractor efforts are working to attain performance standards.

Reliability: Miles Between Road Calls

MBRC is a vehicle reliability performance indicator that measures the average distance in miles that a transit vehicle travels before failure of a vital component forces removal of the vehicle from service. OCTA has adopted standards for the MBRC for DOFR, CFR, and OC ACCESS services. These standards vary to align with the specific type of service being provided and account for the variability inherent to each of these services including the vehicles assigned. The specific standards as adopted by OCTA are 14,000 MBRC for DOFR OC Bus service; 12,000 MBRC for CFR OC Bus service; and 25,000 MBRC for OC ACCESS.



Through the second quarter of FY 2019-20, OC Bus services continue to perform well with all modes exceeding the performance standard. Notably, from October through December, the MBRC for CFR OC Bus service averaged 14,197 miles, an increase of 21.4 percent from last quarter, and a 57 percent increase from the same quarter of last year. This performance improvement was the result of

a better controlled maintenance environment, reduced technician turnover, and improved overall maintenance.

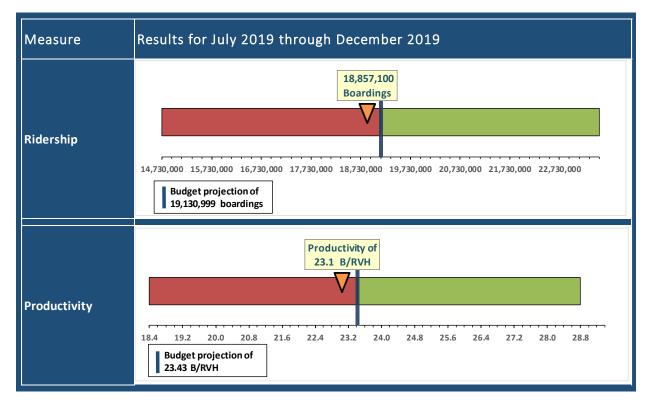
OCTA staff will continue to monitor performance in this area and work with the contractor to sustain or improve overall performance.

The MBRC for OC ACCESS service also exceeded the standard, averaging 27,970 miles between road calls during the second quarter, bringing the year-to-date average to 26,017.

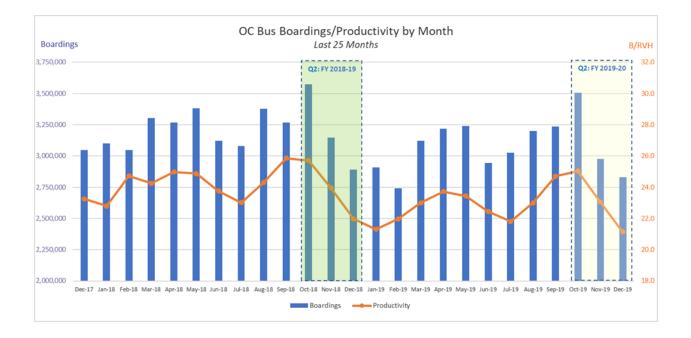
Ridership and Productivity – OC Bus

Ridership (or boardings) is the number of rides taken by passengers using public transit and is influenced by the level of service provided, weather, economy, and seasonal variations in demand. Productivity is an industry measure that counts the average number of boardings for each RVH that is operated. RVH is any 60-minute increment of time that a vehicle is available for passengers within the scheduled hours of service, excluding deadhead (a non-revenue movement of a transit vehicle to position it for service). Boardings per RVH (B/RVH) is calculated by taking the boardings and dividing it by the number of RVH operated.

Through the second quarter of FY 2019-20, both ridership and productivity for OC Bus service were slightly lower than budgeted projections, down by 1.4 percent.



The ridership and productivity for the second quarter shows a consistent trend when compared to the previous two-year period; ridership reaches a high point in October followed by month-over-month decreases through the December holiday period. Though the trend is consistent, compared with 2018, a slight decline in boardings and productivity was experienced in 2019, as shown in the following chart.



Ridership and Productivity – OC ACCESS

(Primary Service Provider and Supplemental Taxi)

Through the second quarter of FY 2019-20, the ridership and Productivity for OC ACCESS are trending below budgeted projections by less than three-tenths of a percent and 3.8 percent, respectively.

Measure	Results for July 2019 through December 2019
Ridership	752,915 Boardings 752,915 Boardings 580,000 630,000 680,000 730,000 780,000 830,000 880,000 930,000 Budget Projection of 755,013 boardings
Productivity	Productivity of 2.01 B/RVH 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 Budget Projection of 2.09 B/RVH 1.0 1.

Contractor Performance: Fixed-Route

Per Agreement No. C-4-1737 between OCTA and First Transit, Inc. (First Transit), additional measures are tracked to ensure the CFR OC Bus service meets specified standards for safety, customer service, and reliability. When the contractor's monthly performance exceeds the standard as set forth in the agreement, financial incentives are paid to the contractor; conversely, when the monthly performance of the contractor is below the standard as set forth in the agreement, penalties are assessed and are paid to OCTA by the contractor.

Through the second quarter of FY 2019-20, the overall performance of the contracted OC Bus service as determined by the performance categories outlined in the contract was below standard for missed trips and on-time performance.

Table 1 provides the penalties and incentives assessed to the contractor by quarter for FY 2019-20. The incentives paid in the second quarter relate to courtesy and accident frequency, which totaled \$12,400. This brings the year-to-date total up to \$26,900. The total penalties assessed to the contractor during the quarter total \$130,382. Despite improvements compared to the previous quarter, unreported accidents and missed trips, were the primary categories where penalties were assessed.

Table 1:	Performance Categories	FY20 Q1	FY20 Q2	FY20 Q3	FY20 Q4	FYTD 19
	On-Time Performance	\$ (6,000)	\$ (12,000)	\$ -	\$ -	\$ (18,000)
	Valid Complaints: Per 7,000 boardings	\$ -	\$ -	\$ -	\$ -	\$ -
	Unreported Accident	\$ (85,000)	\$ (20,000)	\$ -	\$ -	\$ (105,000)
	Accident Frequency Ratio	\$ (20,000)	\$ -	\$ -	\$ -	\$ (20,000)
	Key Positions	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties	CHP Terminal Inspections	\$ -	\$ -	\$ -	\$ -	\$ -
Penalties	Reports	\$ -	\$ -	\$ -	\$ -	\$ -
	Preventive Maintenance	\$ -	\$ (382)	\$ -	\$ -	\$ (382)
	Road Calls	\$ (1,400)	\$ -	\$ -	\$ -	\$ (1,400)
	Vehicle Damage: Per vehicle per day	\$ -	\$ -	\$ -	\$ -	\$ -
	Missed Trips	\$ (166,000)	\$ (98,000)	\$ -	\$ -	\$ (264,000)
	Total	\$ (278,400)	\$ (130,382)	\$ -	\$ -	\$ (408,782)
	On-Time Performance	\$ -	\$ -	\$ -	\$ -	\$ -
Incontivos	Valid Complaints: Per 7,000 boardings	\$ 14,500	\$ 7,400	\$ -	\$ -	\$ 21,900
Incentives	Accident Frequency Ratio	\$ -	\$ 5,000	\$ -	\$ -	\$ 5,000
	Total	\$ 14,500	\$ 12,400	\$ -	\$ -	\$ 26,900
Drien Deriede	AFR	\$ -	\$ (5,000)	\$ -	\$ -	\$ (5,000)
Prior Periods	Key Position	\$ -	\$ -	\$ -	\$ -	\$ -
Adjustment	Total	\$ -	\$ (5,000)	\$ -	\$ -	\$ (5,000)
All	Total	\$ (263,900)	\$ (122,982)	\$ -	\$ -	\$ (386,882)

Contractor Performance: OC ACCESS

(Primary Service Provider and Supplemental Taxi)

Per Agreement No. C-2-1865 between OCTA and MV, additional measures are tracked to ensure OC ACCESS meets the standards for safety, customer service, and reliability. When the contractor's monthly performance exceeds the standard as set forth in the agreement, financial incentives are paid to the contractor; conversely, when the monthly performance of the contractor is below the standard as set forth in the agreement, penalties are assessed and must be paid to OCTA by the contractor.

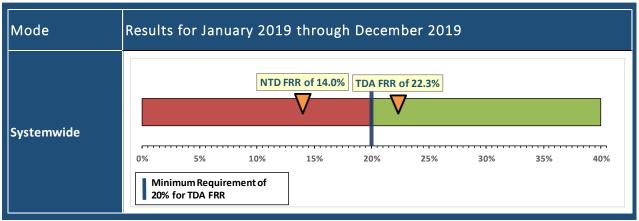
As presented in this report, the overall performance of the contractor providing OC ACCESS service through the second quarter of FY 2019-20 is above standard with respect to courtesy, while below standard for safety and on-time performance. Table 2 below lists, by quarter, the penalties and incentives assessed to the OC ACCESS contractor as established in the agreement. Through the second quarter, there were no incentives awarded to the contractor, but \$118,507 in penalties were assessed. This brings the gross year-to-date total for penalties up to \$182,007. Penalties assessed to the contractor were related to performance for passenger productivity, OTP, call center hold times, excessively late trips, missed trips, and an unreported accident.

Table 2:	Performance Categories	FY20 Q1	FY20 Q2	FY20 Q3	FY20 Q4	FYTD 19
	Passenger Productivity	\$ (10,000)	\$ (20,000)	\$ -	\$ -	\$ (30,000)
	On-Time Performance	\$ (15,000)	\$ (30,000)	\$ -	\$ -	\$ (45,000)
	Customer Comments	\$ (2,800)	\$ (3,000)	\$ -	\$ -	\$ (5 <i>,</i> 800)
	Call Center Hold Times	\$ (5,000)	\$ -	\$ -	\$ -	\$ (5 <i>,</i> 000)
	Excessively Late Trips	\$ (20,000)	\$ (30,000)	\$ -	\$ -	\$ (50,000)
	Missed Trips	\$ (5,000)	\$ (30,000)	\$ -	\$ -	\$ (35,000)
	Unreported Accident	\$ (5,000)	\$ (5,000)	\$ -	\$ -	\$ (10,000)
Penalties	Preventive Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -
	Road calls	\$ (700)	\$ -	\$ -	\$ -	\$ (700)
	Reports	\$ -	\$ -	\$ -	\$ -	\$ -
	Key Positions	\$ -	\$ -	\$ -	\$ -	\$ -
	CHP Terminal Inspections	\$ -	\$ -	\$ -	\$ -	\$ -
	Vehicle Damage	\$ -	\$ -	\$ -	\$ -	\$ -
	Fare Variance	\$ -	\$ (507)	\$ -	\$ -	\$ (507)
	Total	\$ (63,500)	\$ (118,507)	\$ -	\$ -	\$ (182,007)
	Passenger Productivity	\$ -	\$ -	\$ -	\$ -	\$ -
	On-Time Performance	\$ -	\$ -	\$ -	\$ -	\$ -
Incentives	Excessively Late Trips	\$ -	\$ -	\$ -	\$ -	\$ -
	Missed Trips	\$ -	\$ -	\$ -	\$ -	\$ -
	Total	\$ -	\$ -	\$ -	\$ -	\$ -
Prior Periods	Customer Comments	\$ -	\$ -	\$ -	\$ -	\$ -
Adjustment	Unreported Accident	\$ 10,000	\$ -	\$ -	\$ -	
Aujustinent	Total	\$ 10,000	\$ -	\$ -	\$ -	\$ 10,000
All	Total	\$ (53,500)	\$ (118,507)	\$ -	\$ -	\$ (172,007)

Farebox Recovery Ratio

Farebox Recovery Ratio (FRR) is a measure of the proportion of operating costs recovered by passenger fares, calculated by dividing the farebox revenue by total operating expenses. A minimum FRR of 20 percent for all service is required by the Transportation Development Act in order for transit agencies to receive the state sales tax available for public transit purposes. In an effort to normalize seasonal fluctuations, data shown below reflects actuals over the last 12 months from January 2019 through December 2019.

FRR, based on the National Transit Database definition in which only passenger fares are included under revenue, did not meet the 20 percent goal. However, as a result of the passage of Senate Bill No. 508 (SB 508), OCTA was able to adjust the FRR to include local funds. SB 508 states, *"If fare revenues are insufficient to meet the applicable ratio of fare revenues to operating cost required by this article, an operator may satisfy that requirement by supplementing its fare revenues with local funds. As used in this section, "local funds" are any non-federal or non-state grant funds or other revenue generated by, earned by, or distributed to an operator." After incorporating property tax revenue, advertising revenue, and Measure M fare stabilization, the adjusted FRR was 22.3 percent, a decrease of 0.7 percent from the previous quarter and a 1.6 percent drop from the same quarter last year.*



Note:

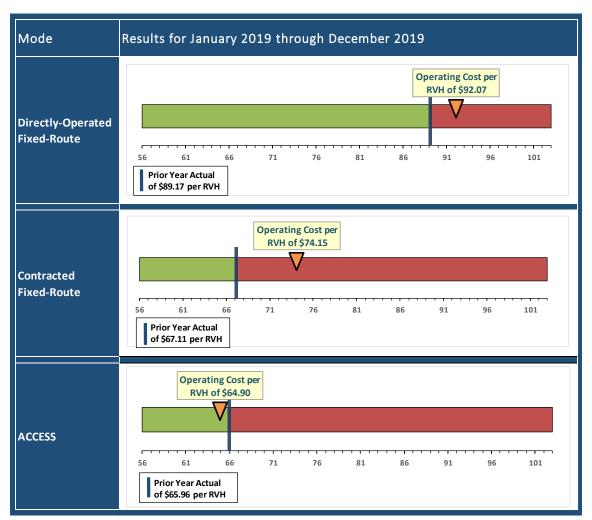
- National Transit Database (NTD) FRR consists of only passenger fares

- Transportation Development Act (TDA) FRR includes passenger fares, property tax revenue, advertising revenue and Measure M fare stabilization

Operating Cost per Revenue Vehicle Hour

Cost per RVH is one of the industry standards used to measure the cost efficiency of transit service. It is derived by dividing operating expenses by RVH. In order to provide a more comparable illustration, all metrics below are calculated based on direct operating cost, which excludes capital, general administrative, and other overhead costs.

Similar to the FRR, the statistics below depict actuals over the last 12 months. All modes operated at a higher cost per RVH than the same 12-month period of the prior year except for OC ACCESS due to reimbursement to the contractor for Same Day Taxi call center operations. The adjustment totaled \$513k and was paid in March 2018 through June 2018. The difference in cost per RVH from the prior FY was a 3.3 percent increase in DOFR, 10.5 percent increase in CFR, and 1.6 percent decrease in OC ACCESS. The increase in DOFR was primarily due to the execution of the new labor agreement for Coach Operators and Maintenance employees which included a wage increase each year. The increase in CFR was primarily due to the execution of Amendment No. 9 for a wage adjustment for operating staff. In addition, DOFR and CFR costs were both increased due to a higher-than- expected compressed natural gas rate since July 2018. Also contributing to the higher cost per hour was the Alternative Fuel Tax Credit that was received in March 2018, but not received in March 2019. This reduced costs by 2.1 percent in 2018.



Performance Evaluation by Route

Continuing efforts are underway to better understand, evaluate, and improve route performance. Performance evaluation is important because it provides:

- A better understanding of where resources are being applied;
- A measure of how well services are being delivered;
- A measure of how well these services are used; and
- An objective basis for decisions regarding future service changes and service deployment.

The tables on the following pages summarize route-level performance through the second quarter. The first three tables present the route-level performance sorted by routes with the highest net subsidy per boarding to routes with a lower net subsidy per boarding, and the remaining three tables present the same information sorted by routes that have the highest boardings to routes with a lower level of boardings.

A route guide listing all of the routes and their points of origins and destinations is provided after the route-level performance tables. Route types are grouped by route numbers as follows:

- Routes 1 to 99 Local routes include two sub-categories:
 - Major: These routes operate as frequent as every 15 minutes during peak times. Major routes operate seven days a week throughout the day. Together, the Major routes form a grid on arterial streets throughout the highest transit propensity portions of the OC Bus service area, primarily in northern parts of the county.
 - Local: These routes operate on arterials within the grid created by the Major routes, but at lower frequencies. Local routes also operate in parts of Orange County with lower transit demand. Most Local routes operate seven days per week, however some operate on weekdays only.
- Routes 100 to 199: Community routes to connect pockets of transit demand with major destinations and offer local circulation. Routes tend to be less direct than Local routes, serving neighborhoods and destinations off the arterial grid. Approximately half of Community routes operate seven days per week.
- Routes 200 to 299: Intra-county express routes operate on weekdays only at peak times and connect riders over long distances to destinations within Orange County, using freeways to access destinations.
- **Routes 400 to 499**: Stationlink routes are rail feeder services designed to connect Metrolink stations to nearby employment destinations. These routes have relatively short alignments, with schedules tied to Metrolink arrivals and departures. They operate during weekday peak hours only, in the peak direction, from the station to destinations in the morning and the reverse in the evening.
- **Routes 500 to 599**: Bravo! routes are limited-stop services operated with branded vehicles.
- **Routes 600 to 699**: Seasonal or Temporary routes (these are not included on the following charts) such as the OC Fair Express.
- Routes 700 to 799: Inter-county express routes that operate on weekdays only at peak times and connects riders over long distances to destinations outside of Orange County, often using freeways to access destinations.

r 32 FT 60 FT						•	•					•		,	•	•				•		•				•				•	÷		•		•	12	•				•	•	- 7	•	•
32		' '	'	'					- 0		'	-	'	'	' ∞ •	'	' '	'	' ~	'	'	' 			'	' ~ -	•	•	'	' +	'	· ·	'	'	'	'	'			-	'	'	· ·		- 6
40 FT			e	0	104	-	~ c			10	1 0,	3	10	4		~ ~		ч С	ŝ	11	4	9	13	2	4	°	- 14				2			4	10	41	7	2 5	101	10	16	5	2 6	14	0,
HSV	7 205	3 863	4 063	5 005	10 810	20 202	707'77	3 470	3 330	3,658	14,805	5,489	17,148	7,028	10,813	4,513	14.316	6.220	2,057	16,629	4,989	10,116	17 150	10,942	10,358	20,182	29,204	27.615	11,406	25,759	35,320	21,202	16,204	8,827	16,728	31,930	13,943	03,240 01 756	31,792	21,873	28,043	11,655	33,009 17 295	30,011	19.775
BoardVSH	000	0.00 8 37	8.84 8.84	0.07	12.5	10.11	CZ-71	10.22	12 07	11.99	13.23	13.15	17.01	14.32	14.80	14.63	15.14	15.24	18.72	16.88	17.78	20.39	00.11	17.28	16.78	17.75	24.03	22.85	22.18	23.65	24.44	21.39	21.23	21.79	26.82	30.98	22.60	20.71	29.33	31.07	27.22	29.12	31.50	34.23	38.15
CostVSM	¢		9.61	9.23	3.10	24.0	9.21	9.39 R 05	11 82	92.11	8.43	9.02	7.95	9.62	8.22	9.47	10.01	10.61	9.03	10.96	12.15	13.32	11.33	9.95	9.34	9.64	12.70	12.60	11.26	12.87	12.23	10.44	9.06	9.52	13.21	15.14	10.35	10.01	12.54	15.96	10.77	12.65	11.99	14.13	14.78
Direct CostVSH	¢ 00 00		82.34	82.81	06.50	20.00	94.37 81 08	01.30 R3 13	86 91	82.82	83.33	81.94	94.76	82.74	83.80	81.72	82.30 82.64	82.80	85.74	83.08	83.23	88.69	02.33	82.32	81.35	83.07	03.04	89.83	87.74	90.71	91.26	83.01	82.42	82.40	91.24	103.05	82.53	30. 13 82 61	90.41	93.13	82.68	82.18	80.09 82.40	87.82	9130
CostVSH	¢ 120.00	123.63	118 73	117 94	153.01	10.001	147.05	120.66	137.87	119.18	120.03	116.74	148.41	120.22	122.50	117.97	118.45	118.63	131.31	120.69	123.32	140.92	110.71	118.24	116.84	119.85	142.40	142.54	139.02	143.89	144.74	120.66	117.26	117.69	144.79	163.33	118.54	110 01	143.48	148.36	119.43	130.80	131.10	139.85	145 44
Boardings	10 200	_	35 938	55,550	168 736	770 004	13,031	40,007 35 761	43 102	43, 132	195,936	72,198	291,696	100,632	160,031	66,029	31,031 216 741	94.789	38,494	280,661	88,688	206,279	375 686	189,084	173,819	358,141	638 082	631.100	253,014	609,215	863,374	305 169	343,936	192,370	448,583	989,197	315,138	1,040,111 507 464	946.176	679,638	763,212	339,427	548 275	1,027,275	751 157
Revenue per Boarding	¢		1.01	10.0	0.92	70.0	0.04	0.94	0.90	1.04	1.08	0.91	0.87	0.92	1.03	0.88	0.99	0.88	1.06	0.91	0.98	0.82	0.0/	0.92	0.98	0.91	0.90	0.79	0.88	0.86	0.87	0.90	0.82	0.78	0.85	0.89	0.88	0.94	0.83	0.86	0.79	0.87	0.90	0.91	000
	to arding	0.00	1.50	0.65	90.0 90.1	34.0	0.40	0.50	0.30	0.82	0.82	0.75	0.61	0.71	0.90	0.54	0.18	0.57	1.40	0.70	0.81	0.52	0.57	0.02	0.41	0.40	0.39	0.34	0.35	0.41	0.37	0.45	0.36	0.37	0.40	0.39	0.40	0.33	0.19	0.26	0.38	0.26	0.43	0.24	10.0
Indirect Subsidy	Ф Г Г Л	4 0.04	5.08	4 77	1.1.1	tt	10.4 A 26	62.4	5 02 2 02	3.60	3.27	3.26	3.16	3.02	2.97	2.94	2.39	2.79	2.44	2.55	2.41	2.45	0.4.2	2.43	2.45	2.39	2.13	2.19	2.16	2.10	2.03	1.9/	1.93	1.89	1.83	1.76	1.79	1.70	1.60	1.57	1.48	1.45	4.1	1.28	00 1
Direct Subsidy	¢ 10.05	8 AG	7.33	20.7	5.1F	0.4.0	6 27	6 38	5.83	5.31	4.72	4.70	4.70	4.46	4.28	4.24	4.41	4.12	3.52	3.68	3.55	3.64	3.53	3.50	3.53	3.45	3.27	3.26	3.22	3.12	3.02	2.84	2.78	2.73	2.72	2.62	2.58	2.03	2.39	2.34	2.13	2.16	1 04	1.90	1 70
Subsidy per Boarding	¢ 10.42		13.91	12.31 12.46	11 25	03 11	11.00	11.34	10.11	9 73	8.81	8.71	8.47	8.19	8.15	7.72	8C.1 7 49	7.48	7.36	6.93	6.77	6.61 6.65	0.00	6.40	6.39	6.24 r or	5.60 F 80	5.79	5.73	5.63	5.42	5.24	5.07	4.99	4.95	4.77	4.77	4.70	4.18	4.17	3.99	3.87	3.60	3.42	3 20
Farebox	20/	5.0%	7.5%	%6.7	7 10/2	7 00/	0/.U.1 70/2 0	0.7.70	8 3%	0.2%	11.9%	10.3%	10.0%	10.9%	12.4%	10.9%	11.8%	11.3%	15.1%	12.8%	14.1%	11.9%	12.170	13.4%	14.1%	13.4%	700 21	12.7%	14.1%	14.2%	14.7%	%1.CI %2.EI	14.9%	14.4%	15.7%	16.8%	16.7%	16.2%	17.2%	18.1%	17.9%	19.5%	21.5%	22.3%	74 70/
Zone	¢	z כ	c.	z		0	nc	ט כ	ь с	ა <i>თ</i>	ია	ပ	ပ	0	s :	z	zĊ	z	S	ပ	υ	zz		z	S	z	z	zz	с	z	z	z	z	z	z	:	z	z	z c	υ	z	02	z	ပ	ر
Route	600	004	085	153	20	620	178	087	076	177	091	086	083	167	060	024	R7 I	143	082	059	150	056	020	025	680	071	000	050	072	054	029	0.05	030	033	543	057	046	038	090	053	042	053X	057X	066	0e4

	L.						
nıt	- 60 1	'	'	'	'	'	
Bus Count	32 FI	•	•	•	•	•	
ш	40 FT 32 FT 60 FT		3	4	3		
	HSV	1,453	1,920	2,021	1,278	736	
	BoardVSH	3.87	5.72	7.47	10.28	8.24	
	CostVSM	\$ 9.70	98.8	9.46	11.04	9.44	
arding)	Direct CostVSH	\$ 132.56	148.78	190.58	171.00	126.02	
ly per Bo	CostVSH	\$ 189.54 \$ 132.56 \$	229.30	251.89	264.14	183.80	
d by Subsic	Boardings	5,619	10,989	15,100	13,135	6,061	
vice (Sorte	Revenue per Boarding	\$ 0.92	2.04	2.67	2.52	1.01	
ress Serv	"Capital Subsidy" Per Boarding	ج	4.90	4.75	4.10	00'0	
for Exp	Indirect Subsidy	\$ 18.24	14.66	10.63	8.94	8.08	rements
y Route	Direct Subsidy	48.10 \$ 29.86	23.36	17.41	14.24	13.22	ment requirer
OCTA Operating Statistics By Route for Express Service (Sorted by Subsidy per Boarding) Fiscal Year 2019-20 Through Q2	Route Zone Farebox Subsidy per Boarding		42.92	32.79	27.28	21.30	(1) Total bus count (429) is based on PM weekday equipment redui
A Opera Year 2019	Farebox	1.9% \$	5.1%	16.8%	9.8%	4.5%	(429) is has
OCT. Fiscal	Zone	z	z	ပ	ပ	ပ	IS COUNT
OCTA	Route	213	721	794	701	206	(1) Total bi

I total bus count (429) is based on PM weekday equipment requirements.
C under Zone is Central County, N is North County and S is South County.

(2) C under Zone is Central County, N is North County and S is South County.

Farebox	k Subsidy per Boarding	Direct Subsidy	Indirect Subsidy		Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	HSV	40 FT	32 FT 60 FT
20.0%	\$ 3.80	\$ 2.14	\$ 1.44	5 0.22	\$ 0.90	1,060,514	\$ 141.10	\$ 88.59	\$ 13.99	31.50	33,669	13	
				0.33			143.24		12.87	26.71	39,246	19	
22.3%		1.90		0.24	0.91	1,027,275	139.85	87.82	14.13	34.23	30,011	14	
20		2.62		0.39			163.33	103.05	15.14	30.98	31,930	4 (
14.7%	6 4.10 5.47	3.02	2.03	0.37	0.03	863.374	144.74	91.26	12.23	24.44	35,320	0	
17.9%		2.13		0.38			119.43	82.68	10.77	27.22	28,043	16	
21.7%		1.79		0.21		754,452	145.44	91.30	14.78	38.15	19,775	6	,
18.1%		2.34		0.26			148.36	93.13	15.96	31.07	21,873	10	
15.2%		3.27		0.39	0.98		142.40	89.64	12.78	22.11	29,284	14	-
2%		3.26		0.34			142.54	89.83	12.60	22.85	27,615	12	
14.2%		3.12		0.41			143.89	90.71	12.87	23.65	25,759	14	
21.5%		1.94		0.43		548,275	131.10	82.49	11.92	31.70	17,295	e	
13.9%		3.19		0.47			148.62	93.85	11.99	24.03	22,389	14	,
16.2%	6 4.73	2.54		0.42	0.83	507,464	119.91	82.61	10.02	23.33	21,756	12	
10/		2.84		0.43			121.91	83.51	10.44	21.39	21,262	11	
15.7%	6.4	21.2		0.40	C8.0		144.79	91.24	13.21	26.82	10,728	01	,
19.5%		2.03	0.1	0.40 CA 0		393,109	148.00	83.U3 03.54	30 21	00.12	17,152	0 6	
4		3.45		0.40			119.85	83.07	9.64	17.75	20.182	2 @	
14.9%		2.78	1.93	0.36	0.82	343.936	117.26	82.42	9.06	21.23	16.204	2	,
5%		2.16		0.26		339,427	130.80	82.18	12.65	29.12	11,655	5	,
16.7%		2.58	1.79	0.40			118.54	82.53	10.35	22.60	13,943	7	
23.0%		1.64		0.24			130.85	82.27	12.52	36.65	8,288	4	
10.0%		4.70	3.16	0.61	0.87	291,696	148.41	94.76	7.95	17.01	17,148	10	,
7 00/	6.93	3.68		0.70			120.69	83.08	10.96	16.88	16,629	11	
14 1%		3.22		0.35	0.04		139.02	87.74	3.27 11.26	22.23	11 406	- 10	
12.7%	6.55	3.53		0.57			118.71	82.39	11.93	17.36	12,777	2	
11.6%		4.08		0.58			118.46	82.64	10.41	15.14	14,316	7	,
11.9%		3.64		0.52			140.92	88.69	13.32	20.39	10,116	9	
11.9%	6 8.81	4.72	3.27	0.82	1.08	195,936	120.03	83.33	8.43	13.23	14,805	6	
14.4%		2.73		0.37			117.69	82.40	9.52	21.79	8,827	4	
13.4%		3.50		0.47			118.24	82.32	9.95	17.28	10,942	5	
14.1%	6.39	3.53	2.45	0.41	0.98	173,819	116.84	81.35	9.34	16.78	10,358	4 (
12 4%		4.28		00.1			122.50	90.00 83.80	0.4.0 0.72	13.17	10,813	2 «	
10.9%		4.46	3.02	0.71			120.22	82.74	9.62	14.32	7.028	4	
11.8%		4.41		0.18			118.43	82.36	10.51	14.13	6,916	1	,
11.3%	6 7.48	4.12		0.57			118.63	82.80	10.61	15.24	6,220	З	
14.1%		3.55		0.81			123.32	83.23	12.15	17.78	4,989	4	
10.3%	6 8./1 7.70	4.70	3.26	67.0 7.5 0	0.91	72,198	116.74	81.94	9.02	13.15	5,489	m c	
7 20/	-	4.24		7.0			111.91	01.12	9.47	14.03	4,015 F 005	N C	
2%		5.31		0.82			119.18	82.82	9.29	11.99	3,658	7	
8.2%		6.27		0.82			117.06	81.98	9.39	10.22	4,263	2	
8.3%	6 10.58	5.83		0.83		43,192	137.87	86.91	11.82	12.97	3,330	2	
15.1%		3.52		1.40			131.31	85.74	9.03	18.72	2,057	e	
7.5%		7.33		1.50	1.01		118.73	82.34	9.61	8.84	4,063	3	
× 1		6.38		0.50			120.66	83.13	8.05	10.30	3,470	-	
5.9%		97.92		0.00			123.63	83.44	9.54	8.32	3,863		,
5.0%	862 C 5.0% 19.43		10.95 5.54	2.94	0.87	18,289	138.99	83.20	18.13	8.00	2,285		

OCTA Operating Statistics By Route for Local and Community Services (Sorted by Boardings)

3oardings)	
e (Sorted by Boaı	
kpress Service (So	
ics By Route for Expres	
ng Statistics B	0 Through Q2
OCTA Operating Statistics	Fiscal Year 2019-20 Throu
<	OCTA

Route Zone Farebox Subs 794 C 16.8% \$ 704 C 9.8% \$	Subsidy per Boarding												
C 16.8%		Direct Subsidy	Indirect Subsidy	"Capital Subsidy" Per Boarding	Revenue per Boarding	Boardings	CostVSH	Direct CostVSH	CostVSM	BoardVSH	HSV	40 FT 32 FT 60 FT	5 ET
	32.79 \$	32.79 \$ 17.41 \$ 10.63	\$ 10.63	\$ 4.75	\$ 5.67	15,100 \$	\$ 251.89 \$	\$ 190.58	\$ 9.46	7.47	2,021	4	
	27.28	14.24	8.94	4.10	2.52	13,135	264.14	171.00	11.04	10.28	1,278	3	
721 N 5.1%	42.92	23.36	14.66	4.90	2.04	10,989	229.30	148.78	8.86	5.72	1,920	e	
206 C 4.5%	21.30	13.22	8.08	0.00	1.01	6,061	183.80	126.02	9.44	8.24	736		
213 N 1.9%	48.10	29.86	18.24	0.00	0.92	5,619	189.54	132.56	9.70	3.87	1,453		

Total bus count (429) is based on PM weekday equipment requirements.
C under Zone is Central County, N is North County and S is South County.

Total bus count (429) is based on PM weekday equipment requirements.
C under Zone is Central County, N is North County and S is South County.

Route Reference Table

Route	Route Description	Main Street	Route Category
1	Long Beach - San Clemente	via Pacific Coast Hwy	LOCAL
21	Buena Park - Sunset Beach	via Valley View St/ Bolsa Chica Rd	LOCAL
24	Buena Park - Orange	via Malvern Ave/ Chapman Ave/ Tustin Ave	LOCAL
25	Fullerton - Huntington Beach	via Knott Ave/ Goldenwest St	LOCAL
26	Fullerton - Placentia	via Commonwealth Ave/ Yorba Linda Blvd	LOCAL
29	La Habra - Huntington Beach	via Beach Blvd	LOCAL
30	Cerritos - Anaheim	via Orangethorpe Ave	LOCAL
33	Fullerton - Huntington Beach	via Magnolia St	LOCAL
35	Fullerton - Costa Mesa	via Brookhurst St	LOCAL
37	La Habra - Fountain Valley	via Euclid St	LOCAL
38	Lakewood - Anaheim Hills	via Del Amo Blvd/ La Palma Ave	LOCAL
42	Seal Beach - Orange	via Seal Beach Blvd/ Los Alamitos Blvd/ Lincoln Ave	LOCAL
43	Fullerton - Costa Mesa	via Harbor Blvd	LOCAL
46	Long Beach - Orange	via Ball Road/ Taft Ave	LOCAL
47	Fullerton - Balboa	via Anaheim Blvd/ Fairview St	LOCAL
50	Long Beach - Orange	via Katella Ave	LOCAL
53/53X	Anaheim - Irvine	via Main St	LOCAL
54	Garden Grove - Orange	via Chapman Ave	LOCAL
55	Santa Ana - Newport Beach	via Standard Ave/ Bristol St/ Fairview St/ 17th St	LOCAL
56	Garden Grove - Orange	via Garden Grove Blvd	LOCAL
57/57X	Brea - Newport Beach	via State College Blvd/ Bristol St	LOCAL
59	Anaheim - Irvine	via Kraemer Blvd/ Glassell St/ Grand Ave/ Von Karman Ave	LOCAL
60	Long Beach - Tustin	via Westminster Ave/ 17th St	LOCAL
64/64X	Huntington Beach - Tustin	via Bolsa Ave/ 1st St	LOCAL
66	Huntington Beach - Irvine	via McFadden Ave/ Walnut Ave	LOCAL
70	Sunset Beach - Tustin	via Edinger Ave	LOCAL
70	Yorba Linda - Newport Beach	via Tustin Ave/ Red Hill Ave/ Newport Blvd	LOCAL
72	Sunset Beach - Tustin	via Warner Ave	LOCAL
72		via Talbert Ave/ MacArthur Blvd	LOCAL
78 79	Huntington Beach - John Wayne Airport		
	Tustin - Newport Beach	via Bryan Ave/ Culver Dr/ University Ave	LOCAL
82	Foothill Ranch - Rancho Santa Margarita	via Portola Pkwy/ Santa Margarita Pkwy	LOCAL
83	Anaheim - Laguna Hills	via 5 Fwy/ Main St	LOCAL
85	Mission Viejo - Laguna Niguel	via Marguerite Pkwy/ Crown Valley Pkwy	LOCAL
86	Costa Mesa - Mission Viejo	via Alton Pkwy/ Jeronimo Rd	LOCAL
87	Rancho Santa Margarita - Laguna Niguel	via Alicia Pkwy	LOCAL
89	Mission Viejo - Laguna Beach	via El Toro Rd/ Laguna Canyon Rd	LOCAL
90	Tustin - Dana Point	via Irvine Center Dr/ Moulton Pkwy/ Golden Lantern St	LOCAL
91	Laguna Hills - San Clemente	via Paseo de Valencia/ Camino Capistrano/ Del Obispo St	LOCAL
129	La Habra - Anaheim	via La Habra Blvd/ Brea Blvd/ Birch St/ Kraemer Blvd	COMMUNITY
143	La Habra - Brea	via Whittier Blvd/ Harbor Blvd/ Brea Blvd/ Birch St	COMMUNITY
150	Santa Ana - Costa Mesa	via Fairview St/ Flower St	COMMUNITY
153	Brea - Anaheim	via Placentia Ave	COMMUNITY
167	Orange - Irvine	via Irvine Ave/ Hewes St/ Jeffrey Rd	COMMUNITY
177	Foothill Ranch - Laguna Hills	via Lake Forest Dr/ Muirlands Blvd/ Los Alisos Blvd	COMMUNITY
178	Huntington Beach - Irvine	via Adams Ave/ Birch St/ Campus Dr	COMMUNITY
206	Santa Ana - Lake Forest Express	via 5 Fwy	EXPRESS BUS
211	Huntington Beach - Irvine Express	via 405 Fwy	EXPRESS BUS
213	Brea - Irvine Express	via 55 Fwy	EXPRESS BUS
453	Orange Transportation Center - St. Joseph's Hospital	via Chapman Ave/ Main St/ La Veta Ave	STATIONLINK
462	Santa Ana Regional transportation Center - Civic Center	via Santa Ana Blvd/ Civic Center Dr	STATIONLINK
463	Santa Ana Regional transportation Center - Hutton Centre	via Grand Ave	STATIONLINK
472	Tustin Metrolink Station - Irvine Business Complex	via Edinger Ave/ Red Hill Ave/ Campus Dr/ Jamboree Rd	STATIONLINK
473	Tustin Metrolink Station - U.C.I.	via Edinger Ave/ Harvard Ave	STATIONLINK
480	Irvine Metrolink Station - Lake Forest	via Alton Pkwy/ Bake Pkwy/ Lake Forest Dr	STATIONLINK
529	Fullerton - Huntington Beach	via Beach Blvd	BRAVO
543	Fullerton Transportation Center - Santa Ana	via Harbor Blvd	BRAVO
560	Santa Ana - Long Beach	via 17th St/ Wesminster Blvd	BRAVO
701	Huntington Beach - Los Angeles Express	via 405 Fwy/ 605 Fwy/ 105 Fwy/ 110 Fwy	EXPRESS BUS
721	Fullerton - Los Angeles Express	via 110 Fwy/ 91 Fwy	EXPRESS BUS
721 794	Riverside / Corona - South Coast Metro Express	via 91 Fwy/ 55 Fwy	EXPRESS BUS

OC Bus 360° Plan: Performance to Date

To address declining bus ridership, the OCTA Board of Directors (Board) endorsed a comprehensive action plan known as OC Bus 360° plan in 2015. This effort included a comprehensive review of current and former rider perceptions, a peer review panel that reviewed OCTA's performance and plans, new branding and marketing tactics tied to rider needs, upgraded bus routes and services to better match demand and capacity, technology solutions to improve passenger experience, and pricing, as well as other revenue changes to stimulate ridership and provide new funding.

Extensive work was invested by OCTA divisions to implement the OC Bus 360° plan. These efforts included:

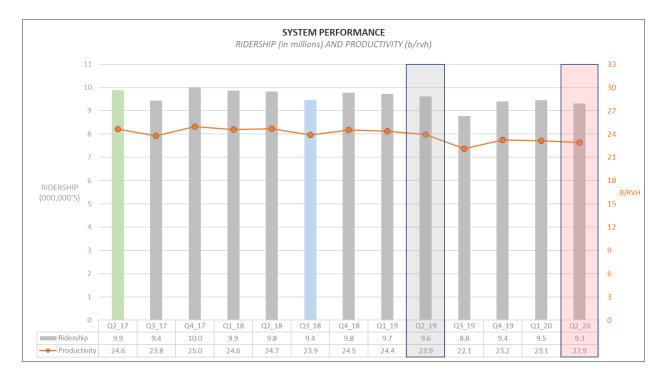
- Implementation of new and faster bus routes;
- Redeployment of services in June 2016, October 2016, October 2017, and February 2018, to improve efficiencies and build ridership;
- Competitively awarded grants to local agencies through Project V for transit services tailored to community needs;
- Implementation of a promotional fare and college pass program;
- Rollout of new technologies, such as mobile ticketing, real-time bus arrival information, a microtransit service; and
- Extensive marketing, public outreach, and promotional campaigns.

Impact of the Service Changes

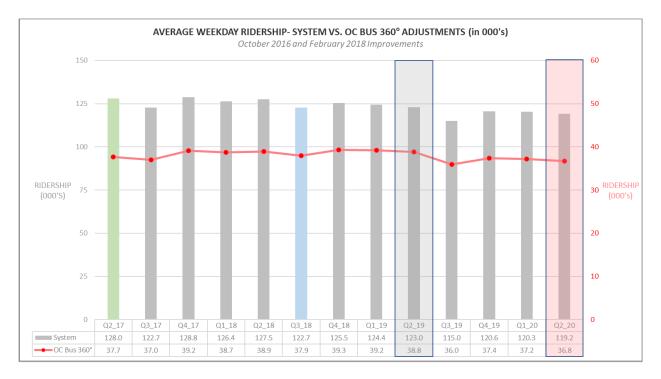
Of the series of approved bus service changes under the OC Bus 360° plan, the changes implemented in October 2016 and February 2018 were the most significant and are tracked for overall OC Bus 360° plan impact. Provided below is a series of charts that show overall system performance over the last 13 quarters and the impact of these route adjustments (*October 2016 marked by green bar; February 2018 marked by blue bar*). In this review, performance is measured by change in average weekday boardings for routes that were improved and average B/RVH for routes that were reduced. This analysis is necessary and on-going to gauge the effectiveness of the recommended changes and the overall OC Bus 360° plan. The trend of overall system ridership and productivity is provided on the following chart.

Through the second quarter of FY 2019-20:

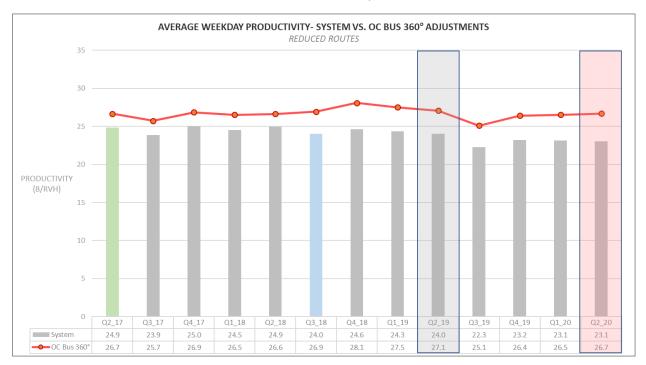
- Ridership was 2.1 percent lower than the previous quarter, and 3.1 percent lower than the same quarter last year.
- Productivity through the second quarter fell by 0.9 percent from last quarter and dropped by 4.1 percent from the same quarter last year.



The impacts of the adjustments implemented under the OC Bus 360° plan are consistent with the systemwide trend. The following chart compares the system trend against the group of routes improved under the OC Bus 360° plan. The average weekday ridership systemwide and for the improved routes was nearly a percent lower than last quarter and dropped by 3.1 percent and 5.3 percent, respectively compared to the same quarter last year.



Improved system and route productivity are the goals for services that are *reduced* or *eliminated* under the OC Bus 360° plan – making low performing routes more productive.



The following chart compares the system productivity trend against the productivity of the group of routes that were reduced/eliminated in October 2016 and February 2018.

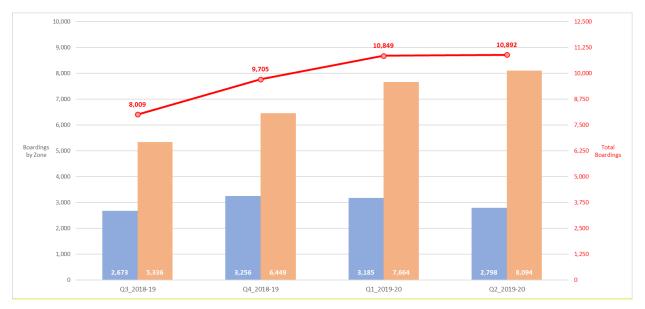
During the second quarter of FY 2019-20, productivity systemwide and for the collective reductions decreased by 0.3 percent and increased by 0.7 percent, respectively compared to last quarter, but fell by 4.1 percent and 1.4 percent, respectively compared to the same quarter last year. Overall, the productivity for the routes reduced under OC Bus 360° remain above the system average by 15.8 percent.

Other OC Bus 360° Initiatives

OC Flex Pilot Program

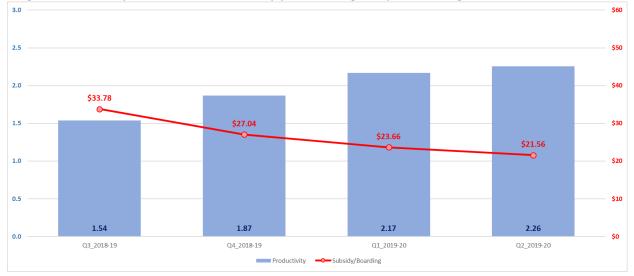
OC Flex service launched in October 2018 in two zones under a one-year pilot program. The OCTA Board approved five primary goals and performance metrics to evaluate the pilot program. Upon approval of the pilot program, the Board directed staff to provide updates on the performance metrics as part of quarterly Bus Operations Performance Measurements Report.

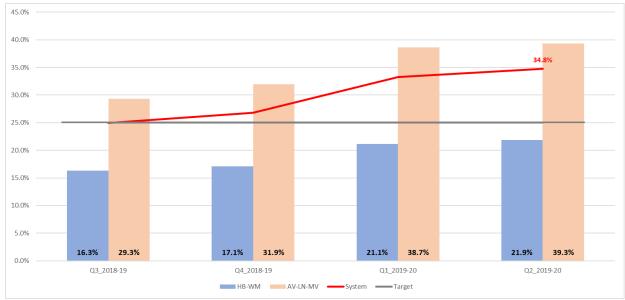
Through the second quarter of FY 2019-20, ridership increased for the fifth consecutive quarter. Three of the five performance metrics, shared trips, connecting trips and customer satisfaction, continue to exceed the respective targets. The remaining two measures, productivity and subsidy per boarding, continue to trend in the right direction though they remain below target. To improve performance, several strategies were developed. The strategies include modifying the zone boundaries, adjusting the span of service hours, allowing additional pre-paid pass options, and targeted marketing. These adjustments were presented to the Board in January 2020 and implemented in February 2020. At that time, staff also proposed extending the pilot period through October 2020 to allow further evaluation of the service. The ridership impacts of these changes, as approved, will be tracked and reported on a quarterly basis.



OC Flex Ridership – Through Q2-FY2019-20

OC Flex Productivity (B/RVH) and Direct Subsidy per Boarding – Through Q2-FY2019-20 Targets: Productivity – 6 b/rvh; Direct Subsidy per Boarding - \$9 per Boarding

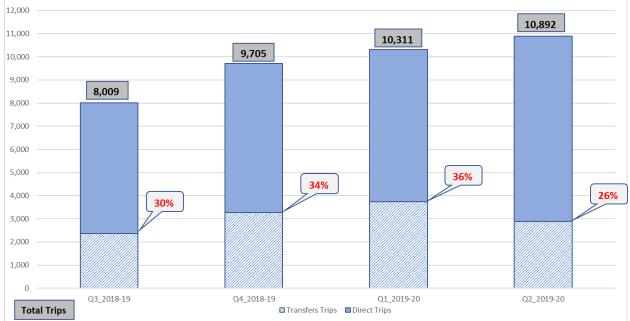




OC Flex Shared Trips – Through Q2-FY2019-20

Target: 25% of Booked Trips Sharing a Vehicle

OC Flex Connecting Trips (Transfers) – Through Q2-FY2019-20



Target: 25% of Trips Transfer to OC Bus or Metrolink Service

College Pass Program

The College Pass Program started in August 2017 with students participating from Santa Ana College and continuing education students from Santa Ana College and Santiago Canyon colleges. In August 2018, the program expanded to include all students from Santiago Canyon College. In Fall 2019, both Golden West and Fullerton colleges joined the College Pass Program. Since the inception of the program on August 26, 2019 through the end of the December 2019 reporting period, Fullerton College reported 109,419 boardings and Golden West College reported 63,798 boardings.

The College Pass Program continued to attract new student riders throughout the semester at Golden West and Fullerton colleges, with the cumulative total of unique student riders continuing to increase. The number of unique student riders at Fullerton College increased by 103 percent (from 1,163 in August 2019 to 2,356 by the end of December 2019) and number of unique student riders at Golden West College increased by 157 percent (from 415 in August 2019 to 1,066 by the end of December 2019).

As of December 31, 2019, approximately two and one-half years since the introduction of the College Pass Program, 2.92 million boardings have been recorded with 17,801 unique students participating since August 2017. Compared to second fiscal quarter in FY 2018-19 (and including the newly added colleges), program ridership increased by 19 percent, from 336,263 boardings to 435,830 boardings. The college pass program has been very successful and popular among students and colleges. OCTA continues to work with other interested colleges to expand the College Pass Program with funding support from the colleges, student fees, and available Low Carbon Transit Operations Program and Mobile Source Air Pollution Reduction grant funds.