



Connecting all points of the Triangle

FY 2016 Annual Bus Performance Report

November 14, 2016

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Transit Service Planner

Regional Services Development

Introduction

In September 2003, GoTriangle’s Board of Trustees adopted the Regional Bus Service Standards to establish performance expectations for the agency’s fixed-route services. The intent was to drive improvements in productivity by routinely and systematically evaluating bus service performance against quantifiable indicators. The Board of Trustees amended the Regional Bus Service Standards in 2004 and 2007. In addition, staff includes on-time performance as an unofficial measure.

The GoTriangle performance indicators presented in this report are:

- Customer boardings per revenue hour
- On-time performance

Several indicators are included in the report for informational purposes. These indicators are total revenue hours and total customer boardings.

This report provides a summary of Triangle Transit’s regional bus service performance during Fiscal Year 2016, with comparisons to Fiscal Year 2015 and prior years in order to illustrate changes and trends in performance.

Summary of Key Findings

Subsequent sections include information on system and route level performance for FY 2016, but several key finds are highlighted:

- Ridership on the GoTriangle system decreased to 1,784,681 boardings in FY 2016 from 1,837,127 in FY 2015, a 3% drop.
- GoTriangle met the agency goal for on-time performance with 87% of trips arriving on-time to end of line timepoints.
- Including all services, productivity fell from 14.3 boardings per hour to 13.0 boardings per hour, a 9% drop. On average, the most significant decrease in productivity was for trips traveling to Raleigh in the morning and from Raleigh in the evening.
- Sunday ridership increased by 9% and Express ridership increased by 1% from FY 2015.
- Gas prices have dropped 16% as compared to FY 2015 and 33% compared to FY 2014. Studies have shown that for every 10% decrease in fuel costs, transit ridership decreases by 1.8%.

System and Service Category Performance

Table 1 below summarizes the system averages for total customer boardings and customer boardings per revenue hour for all of FY 2016 compared to all of FY 2015. Service days, on-time performance, and revenue hours are also provided. Customer boardings per revenue hour is a productivity measure and shows how much service is consumed given the amount of service provided.

Table 1. GoTriangle Performance Measure Summary

Performance Measure	FY 2016	FY 2015	% change *
Service consumption Customer boardings	1,784,681	1,837,127	-3%
Service effectiveness Boardings per revenue hour	13.0	14.3	-9%
Service reliability On-time arrivals to end of line (weekday)	87%	88%	Goal: More than 85%
Weekdays	251	252	
Saturdays	54	54	
Sundays	53	48	
Revenue hours	136,991	128,583	

* **BOLD** values show measures that have improved since the previous fiscal year; Values in *ITALICS* show measures that have decreased.

Ridership

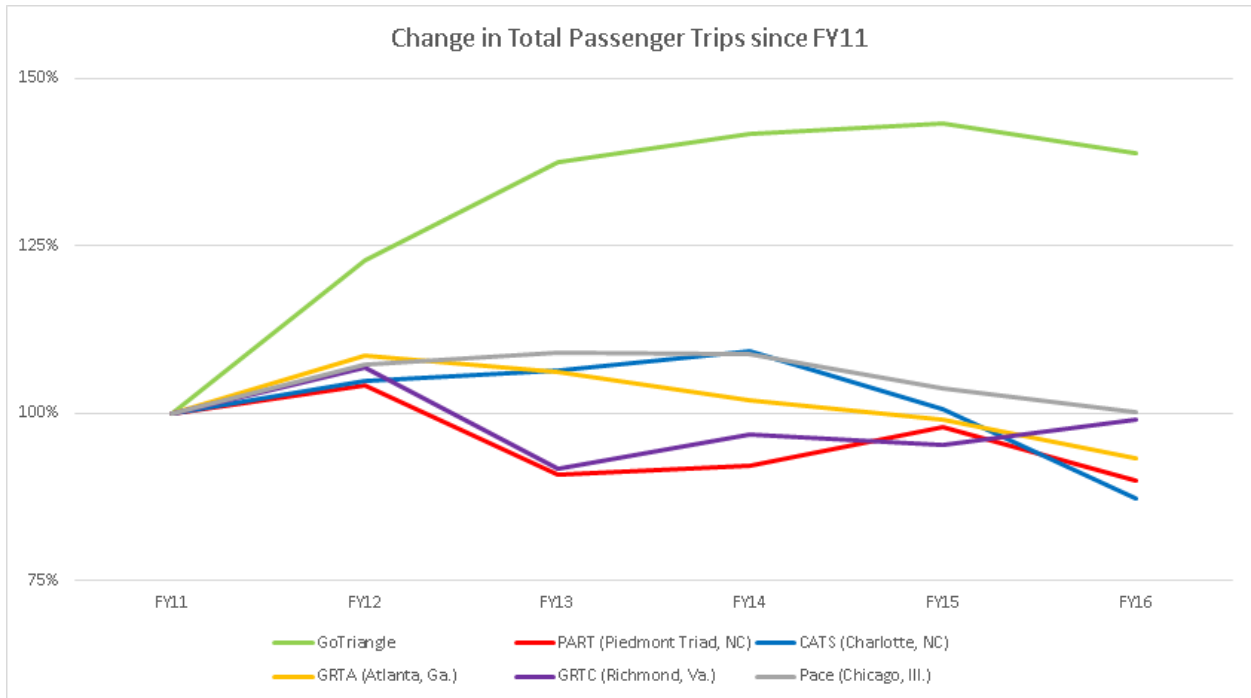
Ridership on the GoTriangle system decreased to 1,784,681 boardings in FY 2016 from 1,837,127 in FY 2015, a 3% drop. New trips were added on the Chapel Hill – Raleigh Express (CRX) and the Durham – Raleigh Express (DRX). Midday services on Route 805 serving Chapel Hill – Woodcroft – Regional Transit Center and the Fortify funded South Cary – Raleigh Express (CTX) were discontinued due to low performance. When Fortify services are excluded, ridership decreased to 1,747,900 in FY 2016 from 1,815,710 in FY 2015, which represents a 4% drop. Routes 300 and 301 were also restructured to provide an improved service pattern while an express fare was no longer charged on Route 300.

Continued declines in gas prices are the likely cause of much of the ridership loss, with other possible variables impacting ridership including the increased cost of NCSU’s GoPass, parking prices, and decreased reliability due to construction projects.

The chart below illustrates the change in total passenger trips since FY 2011 among several peer agencies. Each line represents a transit agency and shows their percent change in the number of passenger trips they provided over previous years. Due in part to added services, GoTriangle has shown the most dramatic

growth; although, like many other agencies, recent years have shown a dip in total passengers. Peer agencies were selected based on the nature of their services and/or the location of their services.

Chart 1. Change in Total Passenger Trips across Peers

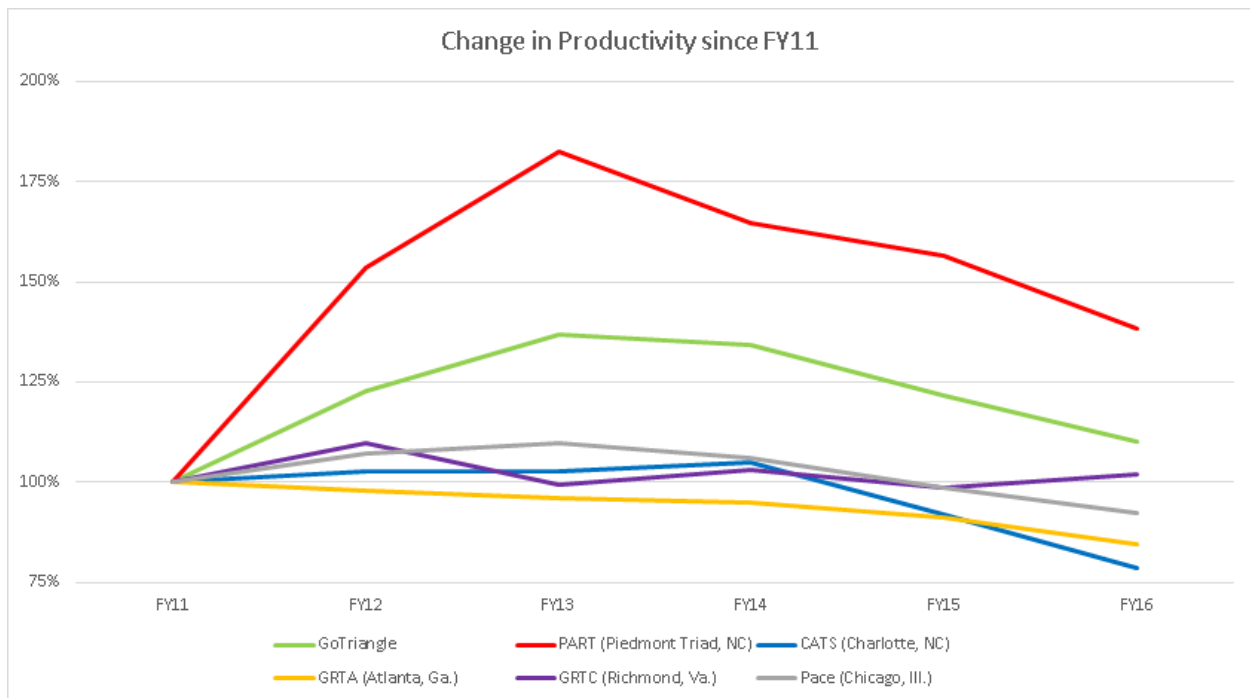


Customers per Revenue Hour

Boardings per hour declined from 14.3 in FY 2015 to 13.0 in FY 2016, a 9% decrease in productivity.

Similar to the above chart, Chart 2 below represents the percent change in productivity since FY 2011 for various agencies. With the exception of Richmond, the agencies have been experiencing a downward trend in productivity since FY 14, which tracks well with the decrease in gas prices. It is also worth noting that PART's upward spike in productivity in FY 2012 and FY 2013 was caused by their elimination of several low-performing services.

Chart 2. Change in Productivity Since FY 2011 Across Peers



External Factors Influencing Bus Service Performance

Falling Gas Prices

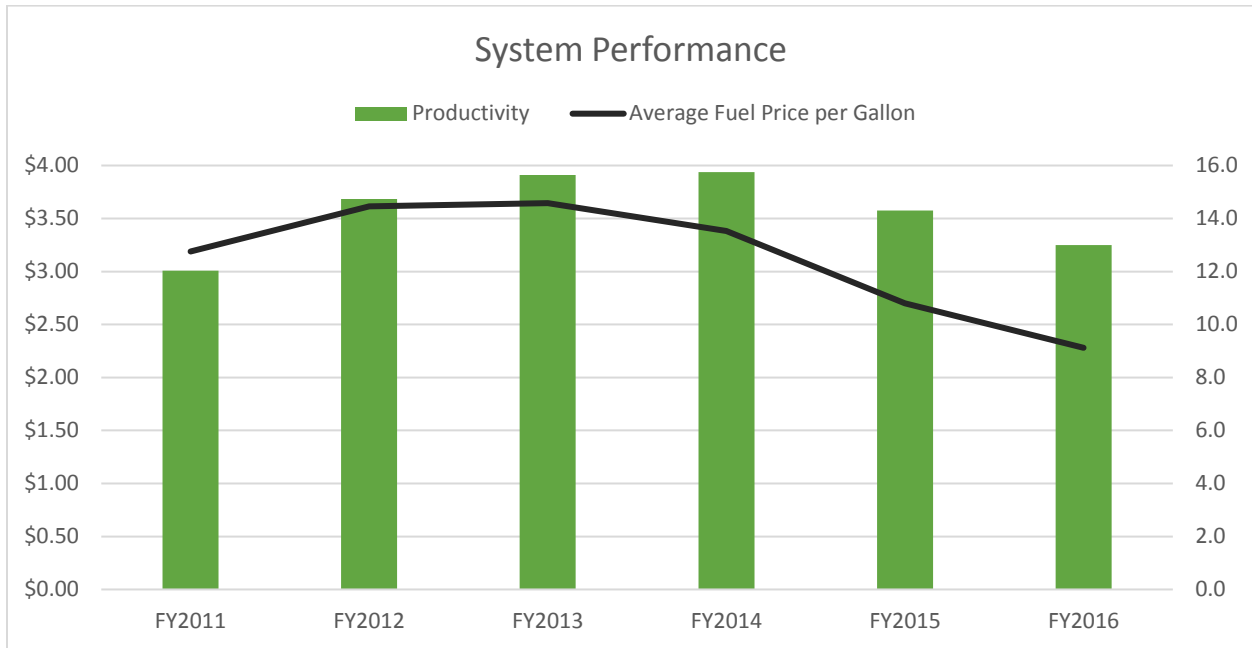
Chart 3 below includes the system-level performance data as well as the average price per gallon of fuel for FY2016 and the previous four years. As shown in the table below, gas prices have continued to significantly drop. In FY 2014, the average price of a gallon of fuel was \$3.38 compared to an average of \$2.70 for FY 2015 and \$2.28 for FY 2016. FY 2016 fuel costs represent a 16% drop in price from the previous year and when compared to FY 2014, a 33% drop. Recent APTA studies have shown that for every 10% decrease in fuel costs, it amounts to a loss of 1.8% decrease in transit ridership¹. Regional systems are also more susceptible to price fluctuations than local systems.² Based on APTA's study, our loss of productivity

¹ Morath, E. (2016, April 4). Low Gas Prices Drove Down Transit Use. Retrieved from <http://blogs.wsj.com/economics/2016/04/06/low-gas-prices-drove-down-transit-use-so-why-cant-you-find-a-seat-on-the-train/>

² Wallis, Ian, and Natalie Schmidt. (2003, October 1-3). Australasian Travel Demand Elasticities – An Update of the Evidence. 26th Australian Transport Research Forum. Wellington, New Zealand.

is on par with the national trends and less severe when the regional nature of the system is taken into account.

Chart 3. GoTriangle System Performance and Average Fuel Price per Gallon



Source: Weekly Retail Gasoline and Diesel Prices. Retrieved from https://www.eia.gov/dnav/pet/pet_pri_gnd_dcus_r1z_w.htm

Parking rates and availability affect elasticity of response to fuel price changes.

As shown in Attachment E, there is a notable 17% decrease in boardings per hour when heading toward Raleigh compared to the previous year. Comparatively, trips toward Chapel Hill and Durham experienced a 2% drop compared to FY 2015. One possible contributing factor is the parking prices in those markets. The price of parking for key markets in Raleigh is significantly lower than markets in Chapel Hill and Durham. The table below shows the minimum and maximum parking rates for similar parking places for Duke University, NC State, UNC, and the State Government Complex in downtown Raleigh.

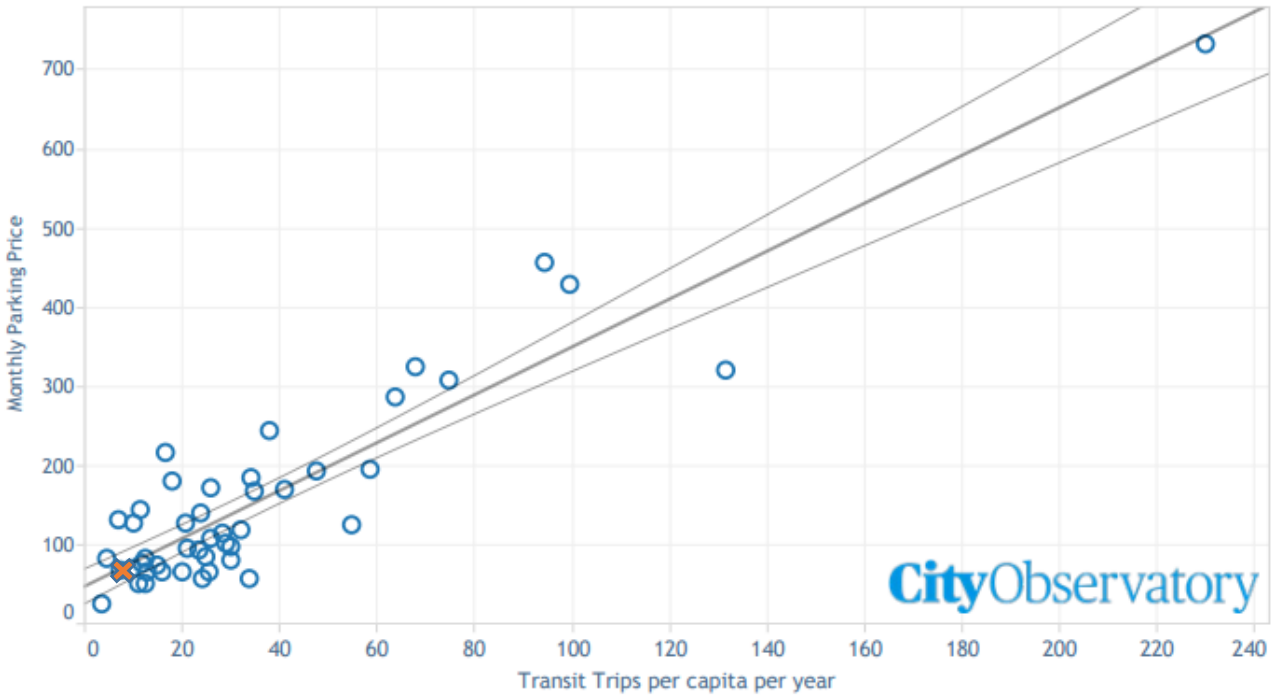
Table 2. Parking Fees in Key Markets

Location	Annual Minimum	Annual Maximum
Duke	\$675 (\$190 satellite lots)	\$1,950
NCSU	\$350	\$1,115
UNC	\$580 (\$230 satellite lots)	\$2,290
State Government Complex	\$120	\$180

The chart below illustrates the strength of the relationships between parking prices and transit usage. The chart plots the number of transit trips per capita in each of the largest cities against the typical parking price for the city center. The cities with the higher transit rides per capita generally have more expensive parking while those with lower parking price points generally have less transit usage. Raleigh is marked by the red 'x.'

Chart 4. Parking Cost v. Transit Trips Per Capita

Parking Cost v. Transit Trips Per Capita

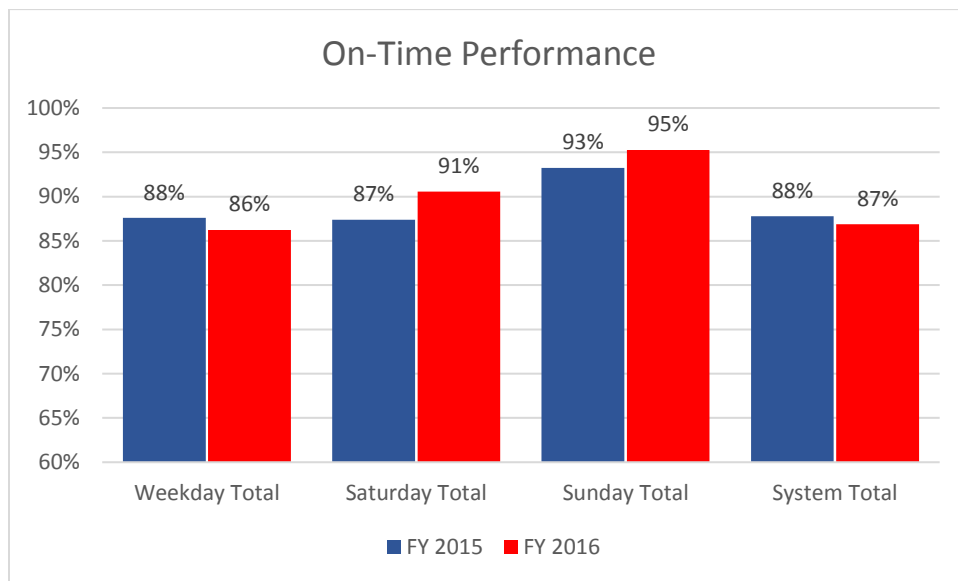


Source: Cortwright, J. (2016, October 19). Cities and the price of parking. Retrieved from http://cityobservatory.org/cities_and_the-price-of-parking/

On-Time Performance

Arriving “on-time” is defined as arriving at the end-of-line timepoint no more than five minutes after the scheduled time. GoTriangle has a goal of more than 85% of trips arriving on-time. In FY2016, GoTriangle met the goal with 87% of trips arriving on-time to the EOL timepoints. From a system standpoint, this is a decrease of 1% from the previous fiscal year.

Chart 5. GoTriangle On-Time Performance



Despite the system wide on-time performance being more than 85%, some routes do not meet the standard for on-time performance. These routes include:

Weekdays: 102 (Raleigh - Garner),
305 (Raleigh – Cary - Lake Pine),
800 (Chapel Hill - RTC),
CRX (Chapel Hill - Raleigh),
DRX (Durham - Raleigh),
FRX (Fuquay-Varina – Raleigh),
KRX (Knightdale – Raleigh),
RSX (Robertson Scholars),
WRX (Wake Forest – Raleigh),
Shuttle 46 (Northeast RTP Shuttle)

Saturdays: 300 (Raleigh – Cary – RTC),
800 (Chapel Hill - RTC)

Sundays: RSX

What is being done to improve the on-time performance?

In August 2016, Routes 100, 105, 300, 301, 305, 400, 405, 700, CRX, and DRX received scheduled adjustments and added time to accurately reflect trip times. While this provides customers more realistic

expectations about their arrival time, lengthening trips without adding vehicles results in greater spacing between trips.

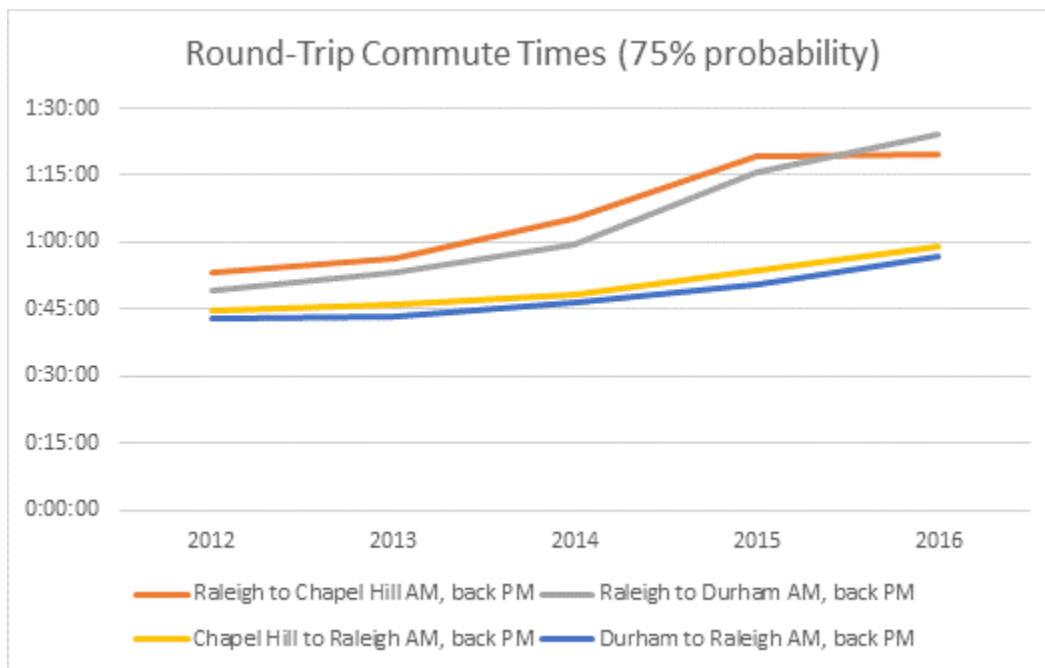
Wake County services will be evaluated comprehensively as part of the upcoming Wake County Transit Plan and the associated GoTriangle Short Range Plan.

Freeway Travel Time

The following chart shows freeway travel speed data pulled from the I-95 Corridor Coalition’s “Vehicle Probe Project Suite.” The chart illustrates the probability that a personal auto round trip to and from one of our highest demand markets will take a given amount of time. For example, a commuter traveling from Raleigh to Durham in the morning and back in the afternoon will spend 1 hour 23 minutes or less on the freeway 75% of the time. By contrast, a commuter traveling from Durham to Raleigh in the morning and back in the afternoon will spend 1 hour or less on the freeway 75% of the time.

The “Raleigh to Chapel Hill” commute measures travel time from the I-440/Wade Ave interchange in Raleigh to the NC 54/US 15-501 interchange in Chapel Hill, or vice versa. The “Raleigh to Durham” commute measures travel time from the I-440/Wade Ave interchange in Raleigh to the NC 147/Trent Dr interchange in Durham, or vice versa.

Chart 6. Round-Trip Commute Times



Route Performance

Staff also looked at the performance of routes within the system compared to the average for routes within their service category. Service categories include Weekday Peak, Weekday Express Peak, Shuttles, Weekday Midday, Weekday Nights, Saturdays and Sundays. GoTriangle's Regional Bus Service Standards determine that a route is a "high performer" if it's number of customer boardings per hour is above 125% of the average for its service category.

The following routes showed high performance compared to the service categories averages in FY 2016:

Weekday Peak - Routes 405 (Durham – Chapel Hill), 700 (Durham – RTC), and 800 (Chapel Hill – Southpoint – RTC)

Weekday Express Peak – Express Routes CRX, DRX, and RSX

Shuttles – Shuttle 49 (SW RTP Shuttle)

Weekday Midday - Routes 400 and 700

Weekday Nights – Route 700

Saturday Core Routes - Route 700

Sunday Core Routes - Route 700

Opportunities for Improvement

Several routes performed below 75% of their service category average in the customers per revenue hour performance measure during FY 2014.

Weekday Peak – Routes 100, 102, 201 (North Raleigh – Regional Transit Center), 300, 301 (Raleigh – Cary), and 311 (Apex – RTC)

Weekday Express Peak - Routes CLX (Fortify Clayton – Raleigh Express), CTX (Fortify South Cary – Raleigh Express), FRX (Fortify Fuquay-Varina – Raleigh Express), and JCX (Fortify Johnson County – Raleigh Express)

Shuttles – Shuttles 42 (IBM Shuttle) and 46 (Northeast RTP Shuttle)

Weekday Midday – Route 805 – This midday service was eliminated due to low productivity in early FY 2016.

Weeknights – Route 800

Saturday – Route RSX

Sunday – Route RSX

Table 3 highlights GoTriangle peak services. Staff will continue to evaluate routes and adjust the pattern and/or add time to the schedules where appropriate.

Table 3. Productivity with High and Low Performers

(red is low performers, blue is high performers)

FY 2016 Performance Measures by Route		Boardings per Hour
Route		FY 16
System Total		13.0
Weekday System Total		13.2
Weekday Peak Services		12.6
Weekday Peak - Regional Routes		14.5
100	Raleigh-Airport-RTC	10.5
102	Raleigh-Garner	8.6
105	Raleigh-RTC	13.4
201	North Raleigh-RTC	9.5
300's	Raleigh-Cary-RTC (300 & 301)	9.5
300	Raleigh-Cary-RTC (FY 15: Raleigh-Cary)	9.8
301	Raleigh-Cary (FY 15: Raleigh-Cary-RTC)	9.2
305	Raleigh-Cary-Lake Pine	10.9
311	Apex-Lake Pine-RTC-EPA	5.9
400	Durham-Patterson Place-Chapel Hill	16.5
405	Durham-Chapel Hill	20.9
420	Hillsborough-Chapel Hill	12.9
700	Durham-RTC	24.7
800	Chapel Hill-Southpoint-RTC	20.4
805	Chapel Hill-Woodcroft-RTC	17.6
Weekday Peak - Express Routes		9.6
CLX	Clayton-Raleigh Express (Fortify)	2.8
CRX	Chapel Hill-Raleigh Express	14.7
CTX	South Cary-Raleigh Express (Fortify)	0.8
DRX	Durham-Raleigh Express	17.5
FRX	Fuquay-Varina-Raleigh Express (Fortify)	4.4
JCX	Johnston County Express (Fortify)	3.1
KRX	Knightdale-Raleigh Express	6.0
ODX	Orange-Durham Express	7.5
RSX	Robertson Scholars Express	12.9
WRX	Wake Forest-Raleigh Express	6.0
ZWX	Zebulon-Wendell-Raleigh Express	9.9
Weekday Peak - RTP Shuttles		8.4
42	Davis Dr/IBM Shuttle	5.3
46	Miami/TW Alexander Shuttle	5.9
47	TW Alexander/Cornwallis Shuttle	9.3
49	Kit Creek Shuttle	13.1

Looking Ahead

Fall FY 2017 Changes

Route 105 (Raleigh – RTC) – Service to the District Dr Park and Ride was removed. Few customers utilized the park and ride and removing it significantly improved the speed of trips between Raleigh and the RTC.

Route 400 (Durham – Chapel Hill) – During off-peak hours, Route 400's pattern was improved in order to provide significantly faster off-peak trip between Durham and Chapel Hill. Accordingly, its frequency was increased to every 30 minutes, weekdays and Saturdays until 7:00 PM.

Route 405 (Durham – Chapel Hill – Carrboro) - Route 405 was rerouted to provide service from Carrboro to Durham in the morning peak and back in the afternoon peak.

Route 700 – A long-term detour was implemented due to the upcoming closures of the interchanges between Alston Avenue and NC-147. Due to limitations within the schedule, serving Alston Ave and Lawson St while maintaining a 30 minute headway was not possible. A necessary detour removed service to RTP as well as Alston Ave and Lawson St, which may negatively impact ridership, in order to maintain existing frequencies. The detour creates a more direct service between the Regional Transit Center and Durham Station.

Wake County Transit Plan and GoTriangle Short Range Plan

A multi-party effort was undertaken to develop a redesign of the regional and local transit networks. The resulting Wake County Transit Plan calls for major improvements in four key areas: (1) connecting regionally; (2) connecting all Wake County communities; (3) providing frequent, reliable urban mobility; and (4) enhanced access to transit.

GoTriangle will be the project manager for the Wake County multi-year bus service implementation plan starting January 2017. This effort will determine a detailed, prioritized list of bus operating and capital improvements over the life of the Wake County Transit Plan. Recent service improvements have been focused on Durham and Orange Counties due to their use of transit tax revenues. A shift toward Wake County service improvements is expected with the implementation of the Wake County Transit Plan.

One of the sub-tasks of this planning effort will be a GoTriangle short-range transit plan, which will encompass all three counties (Durham, Orange, and Wake). This short range plan will develop a vision of what GoTriangle bus service will look like over the next 5-10 years and how that vision can be implemented using identified resources.

RTP Shuttles On-Demand Services Pilot Program

A partnership between the Research Triangle Foundation, GoTriangle, and IBM is being developed to address a trial pilot program for last-mile connections between RTP IBM offices and the Regional Transit Center. During the demonstration project, Shuttles 42 and 46 would be replaced by private on-demand services to provide connections between the Regional Transit Center or other designated stops and destinations served by Shuttles 42 and 46. These efforts will be grant funded.

Completion of Fortify project and end of several associated Commuter Express routes

State funding for the Fortify routes is expected to end during the summer of 2017. Fortify routes include Routes FRX, JCX, CTX, CLX, and hours from Route 300. Route FRX between Fuquay-Varina and Raleigh will continue with reduced frequency and hours from Route 300 between Raleigh and Cary would continue.

Route JCX between Johnson County and Raleigh and Route CLX between Clayton and Raleigh are planned for elimination. Route CTX between South Cary and Raleigh was eliminated in fall of 2015.

With the removal of most Fortify services next summer, an increase in productivity is expected.

Marketing

To help remedy rider decline in FY16 marketing is focused on building an awareness and education program during FY17 that will focus around one main concept - GoTogether. This is a campaign built to inspire those in our community to seek viable travel options to work, school, doctor's appointments and other important places, without driving alone in a car. This education and awareness campaign will be told by sharing real commuter stories highlighting how they "GoTogether" using biking, bus, vanpool and walking. Video stories told so far include a father and son who bike to school and work together, siblings who travel by bus to college each day and high schooler who travels home with friends. Upcoming stories will continue to explore a variety of modes traveled around the Triangle area.

In addition to our annual GoTogether campaign, upcoming events/activities include:

Try Transit Month – September

During the month of September transit agencies across the Triangle promoted transit services at park and ride lots, hosted events with employers, passed out free passes to first time riders and participated in community events. Social media was a big part of this campaign as it allowed new and existing riders to share their stories and encourage others to consider alternative commute options.

Community Outreach – October

GoTriangle partnered with WRAL, RDU and the United Way of the Triangle to fill a bus and bring to those affected by Hurricane Matthew. We received a tremendous outpouring of donations and in the end filled 3 buses and 2 vans. This was a 2 day event with massive online, digital and TV coverage for GoTriangle. Items were supplied to the United Way of Tar River Region in Rocky Mount, the United Way Food Drive in Wilson, and the Partnership for Children and Boys and Girls Clubs of Johnston County.

Rider Appreciation – December

Riders will receive a full color calendar with photos of the Triangle along with monthly tips regarding tracking their trips for prizes, downloading TransLoc to track bus in real time, rules of the road, etc. Calendars will be handed out at events during the month.

New Year, New Commute – January

Campaign to encourage existing riders of transit/smart commuting to track their trips via sharetheridenc.org to earn points towards prizes. Campaign includes digital, print and social mediums.

Go Love – February

Encouraging riders to share their love of transit on social media. Either through Twitter, Facebook or Instagram, we ask riders to share a picture and a quote about their commute. Campaign includes social promotion as well as events.

Transit Drive Appreciation | Safety Awareness - March

A time to celebrate our drivers and tell their stories. Share on social media and in print ads.

Bike Month – April | May

Promoting all things bike. Includes high number of in-person events, promotional items, tips around bike commuting, video interviews/stories.



	Daily Boardings			Daily Revenue Hours			Boardings per Hour		
	FY 2015	FY 2016	Δ	FY 2015	FY 2016	Δ	FY 2015	FY 2016	Δ
System							14.3	13.0	-9%
Weekday	7,022	6,711	-4%	514.9	509.2	-1%	14.6	13.2	-10%
Regional Peak	3,983	3,805	-4%	260.9	261.9	0%	15.6	14.5	-7%
Express	1,343	1,361	1%	142.7	138.9	-3%	11.1	9.6	-14%
Shuttles	178	158	-11%	18.8	18.8	0%	9.5	8.4	-11%
Regional Midday	1,187	1,086	-8%	61.1	58.3	-5%	20.7	19.4	-6%
Regional Night	330	300	-9%	31.4	31.3	0%	11.2	10.0	-11%
Saturday	1,641	1,601	-2%	135.7	135.8	0%	12.6	12.0	-5%
Sunday	761	831	9%	93.8	93.9	0%	8.8	9.1	3%

	Annual Boardings	
	FY 2015	FY 2016
System	1,837,127	1,784,681
Weekday	1,715,445	1,657,964
Regional Peak	983,376	955,027
Express	324,475	329,391
Shuttles	44,240	39,671
Regional Midday	284,027	260,922
Regional Night	79,327	72,953
Saturday	87,619	84,019
Sunday	35,526	42,698

Attachment C. FY2016 Route Summary

FY 2016 Performance Measures by Route		Boardings	Days	Daily Boardings			Daily Revenue Hours			Boardings per Hour		
Route		FY 2016		FY 15	FY 16	Δ	FY 15	FY 16	Δ	FY 15	FY 16	Δ
System Total		1,784,681	357							14.3	13.0	📉 -9%
Weekday System Total		1,657,964	251	7,022	6,711	-4%	514.9	509.2	--	14.6	13.2	📉 -10%
Weekday Peak Services		1,324,089	251	5,505	5,324	-3%	422.3	419.6	--	14.0	12.6	📉 -10%
Weekday Peak - Regional Routes		955,027	251	3,983	3,805	-4%	260.9	261.9	--	15.6	14.5	📉 -7%
100	Raleigh-Airport-RTC	61,593	251	267	245	📉 -8%	23.7	23.4	--	11.3	10.5	📉 -7%
102	Raleigh-Garner	12,918	251	73	51	📉 -30%	6.0	6.0	--	12.2	8.6	📉 -30%
105	Raleigh-RTC	62,840	251	302	250	📉 -17%	17.8	18.8	--	17.0	13.4	📉 -21%
201	North Raleigh-RTC	18,612	251	80	74	📉 -7%	7.3	7.8	--	10.9	9.5	📉 -12%
300's	Raleigh-Cary-RTC (300 & 301)	103,344	251	447	412	📉 -8%	43.3	43.1	--	11.9	9.5	📉 -20%
300	Raleigh-Cary-RTC (FY 15: Raleigh-Cary)	59,936	251		239			26.0			9.8	
301	Raleigh-Cary (FY 15: Raleigh-Cary-RTC)	43,408	251		173			17.1			9.2	
305	Raleigh-Cary-Lake Pine	32,171	251	134	128	-4%	11.7	11.7	--	11.4	10.9	📉 -4%
311	Apex-Lake Pine-RTC-EPA	21,788	251	104	87	📉 -17%	14.8	14.8	--	6.7	5.9	📉 -13%
400	Durham-Patterson Place-Chapel Hill	122,984	251	463	490	📈 6%	29.9	29.7	--	15.8	16.5	📈 4%
405	Durham-Chapel Hill	117,146	251	481	467	-3%	22.3	22.3	--	21.6	20.9	📉 -3%
420	Hillsborough-Chapel Hill	44,227	251	177	176	0%	13.8	13.7	--	12.8	12.9	📈 1%
700	Durham-RTC	84,947	251	364	338	📉 -7%	13.3	13.8	--	27.3	24.7	📉 -9%
800	Chapel Hill-Southpoint-RTC	156,189	251	602	622	📈 3%	30.6	30.5	--	19.6	20.4	📈 4%
805	Chapel Hill-Woodcroft-RTC	116,268	251	491	463	📉 -6%	26.2	26.4	--	18.7	17.6	📉 -6%
Weekday Peak - Express Routes		329,391	251	1,343	1,361	1%	142.7	138.9	--	11.1	9.6	📉 -14%
CLX	Clayton-Raleigh Express (Fortify)	9,725	251	12	39	📈 223%	14.0	14.0	--	1.8	2.8	📈 51%
CRX	Chapel Hill-Raleigh Express	102,652	251	435	409	📉 -6%	25.6	28.1	📈 10%	17.1	14.7	📉 -14%
CTX	South Cary-Raleigh Express (Fortify)	715	86	1	8		10.0	ended Nov '15		0.3	0.8	
DRX	Durham-Raleigh Express	109,835	251	466	438	📉 -6%	21.8	25.5	📈 17%	21.5	17.5	📉 -19%
FRX	Fuquay-Varina-Raleigh Express (Fortify)	15,303	251	19	61	📈 229%	13.8	13.8	--	2.9	4.4	📈 54%
JCX	Johnston County Express (Fortify)	11,038	251	39	44	📈 14%	14.0	14.0	--	2.8	3.1	📈 14%
KRX	Knightdale-Raleigh Express	8,462	251	46	34	📉 -27%	5.6	5.6	--	8.2	6.0	📉 -27%
ODX	Orange-Durham Express	20,483	251	50	82	📈 65%	10.9	10.9	--	6.7	7.5	📈 12%
RSX	Robertson Scholars Express	18,759	159	97	118	📈 22%	10.0	10.0	--	10.2	12.9	📈 26%
WRX	Wake Forest-Raleigh Express	14,684	251	79	59	📉 -26%	9.8	9.8	--	8.1	6.0	📉 -26%
ZWX	Zebulon-Wendell-Raleigh Express	17,735	251	100	71	📉 -29%	7.2	7.2	--	10.2	9.9	📉 -3%
Weekday Peak - RTP Shuttles		39,671	251	178	158	📉 -11%	18.8	18.8	--	9.5	8.4	📉 -11%
42	Davis Dr/IBM Shuttle	6,394	251	24	25	📈 6%	4.8	4.8	--	5.0	5.3	📈 6%
46	Miami/TW Alexander Shuttle	6,683	251	32	27	📉 -16%	4.6	4.5	--	6.9	5.9	📉 -15%
47	TW Alexander/Cornwallis Shuttle	10,939	251	61	44	📉 -28%	4.8	4.7	--	12.8	9.3	📉 -27%
49	Kit Creek Shuttle	15,655	251	62	62	1%	4.7	4.8	--	13.3	13.1	📉 -2%
Weekday Midday - Regional Routes		260,922	251	1,187	1,086	📉 -8%	61.1	58.3	--	20.7	19.4	📉 -6%
100	Raleigh-Airport-RTC	58,257	251	257	232	📉 -10%	11.9	11.0	--	21.6	20.9	📉 -3%
300	Raleigh-Cary	28,303	251	103	113	📈 9%	6.7	7.0	--	16.5	16.2	📉 -2%
400	Durham-Patterson Place-Chapel Hill	57,973	251	259	231	📉 -11%	9.7	10.3	--	26.8	22.5	📉 -16%
700	Durham-RTC	42,288	251	182	168	📉 -8%	6.3	6.1	--	29.2	27.6	📉 -5%
800	Chapel Hill-Southpoint-RTC	57,295	251	254	228	📉 -10%	11.8	11.9	--	21.6	19.2	📉 -11%
805	Chapel Hill-Woodcroft	323	32	14	10		2.8	ended Aug '15		4.9	3.6	
Weeknights - Regional Routes		72,953	251	330	300	📉 -9%	31.4	31.3	--	11.2	10.0	📉 -11%
100	Raleigh-Airport-RTC	19,356	251	81	77	-5%	6.5	6.8	--	12.5	11.4	📉 -9%
400	Durham-Patterson Place-Chapel Hill	20,103	251	89	80	📉 -10%	7.9	7.8	--	11.2	10.3	📉 -8%
700	Durham-RTC	13,470	251	59	54	📉 -10%	4.0	4.0	--	14.8	13.4	📉 -10%
800	Chapel Hill-Southpoint-RTC	15,831	251	73	63	📉 -14%	6.5	6.8	--	11.3	9.4	📉 -17%
Saturday - Regional Routes		84,019	54	1,641	1,601	-2%	135.7	135.8	--	12.6	12.0	📉 -5%
100	Raleigh-Airport-RTC	23,309	54	410	432	📈 5%	32.1	32.1	--	13.2	13.4	📈 2%
300	Raleigh-Cary	7,143	53	129	135	4%	11.9	11.9	--	10.9	11.1	📈 2%
400	Durham-Patterson Place-Chapel Hill	20,388	54	378	378	0%	31.7	31.7	--	12.3	11.9	📉 -3%
700	Durham-RTC	13,015	54	238	241	1%	15.9	15.9	--	15.5	15.1	📉 -2%
800	Chapel Hill-Southpoint-RTC	17,704	54	385	328	📉 -15%	31.2	31.2	--	12.8	10.5	📉 -18%
RSX	Robertson Scholars Express	2,460	28	101	88	📉 -13%	12.9	13.0	--	7.3	6.9	📉 -6%
Sunday - Regional Routes		42,698	52	761	831	📈 9%	93.8	93.9	--	8.8	9.1	📈 3%
100	Raleigh-Airport-RTC	13,386	53	212	253	📈 19%	24.1	24.1	--	8.8	10.5	📈 19%
400	Durham-Patterson Place-Chapel Hill	11,375	53	202	215	📈 6%	23.7	23.7	--	9.5	9.1	📉 -5%
700	Durham-RTC	7,437	53	124	140	📈 13%	11.9	11.9	--	11.6	11.8	📈 2%
800	Chapel Hill-Southpoint-RTC	8,994	53	169	170	0%	23.2	23.2	--	8.2	7.3	📉 -10%
RSX	Robertson Scholars Express	1,506	28	54	54	0%	10.9	11.0	--	4.6	4.9	📈 6%

Attachment D. FY2016 On Time Performance

On-Time Performance					
Percent of trips on time at end of route					
Route	Description	Hours of Operation	FY 2015	FY 2016	Δ
Weekdays					
100	Raleigh-Airport-RTC	6:40 AM - 11:25 PM	93%	89%	↓ -4 pt
102	Raleigh-Garner	Peak only	88%	66%	↓ -22 pt
105	Raleigh-RTC	Peak only	86%	87%	↑ 1 pt
201	North Raleigh-RTC	Peak only	81%	91%	↑ 9 pt
300	Raleigh-Cary-RTC	6:00 AM - 7:25 PM	83%	86%	↑ 3 pt
301	Raleigh-SW Cary	Peak only	94%	89%	↓ -6 pt
305	Raleigh-Cary-Lake Pine	Peak only	82%	80%	↓ -2 pt
311	Apex-Lake Pine-RTC-EPA	Peak only	92%	90%	↓ -1 pt
400	Durham-Patterson Place-Chapel Hill	6:15 AM - 10:55 PM	85%	90%	↑ 5 pt
405	Durham-Chapel Hill	Peak only	90%	87%	↓ -3 pt
420	Hillsborough-Chapel Hill	Peak only	83%	86%	↑ 3 pt
700	Durham-RTC	6:00 AM - 10:55 PM	92%	91%	↓ -1 pt
800	Chapel Hill-Southpoint-RTC	6:00 AM - 11:10 PM	86%	83%	↓ -3 pt
805	Chapel Hill-Woodcroft-RTC	Peak only	82%	86%	↑ 5 pt
CLX	Clayton-Raleigh Express	Peak only	n/a	85%	--
CRX	Chapel Hill-Raleigh Express	Peak only	79%	79%	--
CTX	South Cary-Raleigh Express	Peak only	81%	87%	--
DRX	Durham-Raleigh Express	Peak only	87%	78%	↓ -9 pt
FRX	Fuquay-Varina-Raleigh Express	Peak only	86%	76%	↓ -10 pt
JCX	Johnston County Express	Peak only	86%	91%	↑ 5 pt
KRX	Knightdale-Raleigh Express	Peak only	84%	84%	--
ODX	Orange-Durham Express	Peak only	95%	94%	↓ -1 pt
RSX	Robertson Scholars Express	7:30 AM - 11:28 PM	88%	79%	↓ -9 pt
WRX	Wake Forest-Raleigh Express	Peak only	90%	84%	↓ -6 pt
ZWX	Zebulon-Wendell-Raleigh Express	Peak only	90%	87%	↓ -4 pt
42	Davis Dr/IBM Shuttle	Peak only	93%	94%	↑ 1 pt
46	Miami/TW Alexander Shuttle	Peak only	80%	82%	↑ 2 pt
47	TW Alexander/Cornwallis Shuttle	Peak only	92%	96%	↑ 4 pt
49	Kit Creek Shuttle	Peak only	81%	90%	↑ 10 pt
Saturday					
100	Raleigh-Airport-RTC	6:40 AM - 11:12 PM	91%	95%	↑ 4 pt
300	Raleigh-Cary	7:00 AM - 6:55 PM	75%	78%	↑ 3 pt
400	Durham-Patterson Place-Chapel Hill	7:00 AM - 10:55 PM	86%	89%	↑ 3 pt
700	Durham-RTC	7:00 AM - 10:55 PM	97%	97%	--
800	Chapel Hill-Southpoint-RTC	6:45 AM - 11:20 PM	83%	84%	↑ 1 pt
RSX	Robertson Scholars Express	12:00 PM - 12:28 AM	82%	90%	↑ 8 pt
Sunday					
100	Raleigh-Airport-RTC	6:40 AM - 7:12 PM	96%	98%	↑ 2 pt
400	Durham-Patterson Place-Chapel Hill	7:00 AM - 6:55 PM	91%	93%	↑ 2 pt
700	Durham-RTC	7:00 AM - 6:55 PM	99%	99%	--
800	Chapel Hill-Southpoint-RTC	6:45 AM - 7:20 PM	90%	91%	↑ 2 pt
RSX	Robertson Scholars Express	12:00 PM - 10:28 PM	80%	93%	↑ 14 pt
Weekday Total			88%	86%	-1 pt
Saturday Total			87%	91%	3 pt
Sunday Total			93%	95%	2 pt
System Total			88%	87%	-1 pt

Attachment E. FY2016 Peak Commute Markets

FY 2016 Peak Commute Markets	Daily Boardings			Daily Revenue Hours			Boardings per Hour		
	FY 15	FY 16	Δ	FY 15	FY 16	Δ	FY 15	FY 16	Δ
To Raleigh (GoTriangle funded)	1,101	989	↓ -10%				13.3	11.1	↓ -16%
100 * From RTC/Airport	107	100	↓ -7%	11.4	11.4	--	9.4	8.7	↓ -7%
102 From Garner	73	51	↓ -30%	6.0	6.0	--	12.2	8.6	↓ -30%
105 From RTC	126	106	↓ -16%	8.3	8.3	--	15.3	13.0	↓ -15%
301 * From Southeast Cary	118	89	↓ -25%	7.8	8.7	↑ 12%	15.2	10.2	↓ -33%
305 * From Cary/Apex	72	71	-2%	6.1	6.1	--	11.8	11.6	↓ -2%
CRX From Chapel Hill	200	167	↓ -16%	12.6	12.8	--	15.9	13.2	↓ -17%
DRX From Durham	204	182	↓ -11%	9.2	12.6	↑ 37%	22.4	14.7	↓ -34%
KRX From Knightdale	37	28	↓ -24%	3.7	3.7	--	10.0	7.6	↓ -24%
WRX From Wake Forest	48	37	↓ -23%	6.3	6.3	--	7.7	6.0	↓ -23%
ZWX From Zebulon/Wendell	90	61	↓ -32%	5.5	5.5	--	12.0	11.1	↓ -7%
To Raleigh (Fortify funded)	53	121	↑ 127%				2.6	3.8	↑ 48%
300 From Cary (direct trip, 2015)	26	97	↑ 278%	7.2	8.1	↑ 13%	3.6	12.0	↑ 236%
CLX From Clayton (2015)	9	31	↑ 236%	10.8	10.8	--	1.8	2.9	↑ 57%
FRX From Fuquay-Varina (2015)	14	54	↑ 279%	9.7	9.7	--	3.2	5.6	↑ 77%
JCX From Johnston County (2014)	30	36	↑ 20%	11.0	11.0	--	2.7	3.3	↑ 20%
To Durham	825	847	3%				16.4	16.1	↓ -2%
400 * From Chapel Hill	194	198	2%	15.4	15.4	--	12.9	12.9	↓ 0%
405 From Chapel Hill	176	182	3%	11.3	11.3	--	15.6	16.0	↑ 3%
700 * From RTC	153	137	↓ -10%	7.0	7.0	--	21.8	19.7	↓ -10%
DRX From Raleigh	262	256	-2%	12.6	12.9	--	20.9	20.2	↓ -3%
ODX From Hillsborough/Mebane (2014)	39	73	↑ 86%	6.2	6.2	--	9.3	11.8	↑ 27%
To Chapel Hill	1,801	1,814	1%				22.3	21.9	↓ -2%
400 From Durham/Patterson Place	269	292	↑ 9%	14.5	14.3	--	18.9	20.4	↑ 8%
405 From Durham	304	285	↓ -6%	10.9	10.9	--	27.9	26.0	↓ -7%
420 From Hillsborough	157	158	0%	9.3	9.3	--	16.9	16.9	↓ 0%
800 * From RTC/Southpoint	494	508	3%	18.4	18.4	--	26.9	27.6	↑ 3%
805 From RTC/Woodcroft	341	330	-3%	14.9	14.9	--	22.9	22.2	↓ -3%
CRX From Raleigh	235	242	3%	13.0	15.3	↑ 17%	18.2	16.0	↓ -12%
To RTC	1,032	933	↓ -10%				14.0	12.3	↓ -12%
100 * From Raleigh/Airport	160	146	↓ -9%	12.2	12.0	--	13.0	12.1	↓ -7%
105 From Raleigh	176	144	↓ -18%	9.6	10.6	--	18.4	13.7	↓ -25%
201 From North Raleigh	80	74	↓ -7%	7.3	7.8	--	10.9	9.5	↓ -12%
300 * From Cary	91	68	↓ -26%	5.6	6.8	↑ 20%	16.2	10.0	↓ -38%
311 From Apex/Lake Pine	57	52	↓ -8%	8.7	8.7	--	6.3	6.0	↓ -4%
700 * From Durham	211	201	-5%	6.3	6.8	--	33.3	30.0	↓ -10%
800 * From Chapel Hill/Southpoint	107	115	↑ 7%	12.3	12.1	--	8.7	9.5	↑ 8%
805 From Woodcroft	150	133	↓ -11%	11.3	11.5	--	13.3	11.6	↓ -12%
RTP Shuttles	178	158	↓ -11%				9.5	8.4	↓ -11%
42 Davis Dr/IBM Shuttle	24	25	↑ 6%	4.8	4.8	--	5.0	5.3	↑ 6%
46 Miami/TW Alexander Shuttle	32	27	↓ -16%	4.6	4.5	--	6.9	5.9	↓ -15%
47 TW Alexander/Cornwallis Shuttle	61	44	↓ -28%	4.8	4.7	--	12.8	9.3	↓ -27%
49 Kit Creek Shuttle	62	62	1%	4.7	4.8	--	13.3	13.1	↓ -2%

*This table shows peak-hour trips from Origin to Destination in the AM, and back in the PM.
 * indicates that passengers commonly do not ride all the way to the final destination.*