



North Carolina Pupil Transportation Service Indicators Report

2017-2018



Public Schools of North Carolina
State Board of Education
Department of Public Instruction



PUBLIC SCHOOLS OF NORTH CAROLINA

DEPARTMENT OF PUBLIC INSTRUCTION | Mark Johnson, *Superintendent of Public Instruction*

WWW.NCPUBLICSCHOOLS.ORG

June, 2018

North Carolina pupil transportation professionals respond daily to a large variety of circumstances and challenges as they provide an essential service to nearly 800,000 students. Some districts serve large geographic areas; others serve relatively small areas. There are populous, rapidly growing urban districts and very rural ones, some of which are seeing population loss. Such disparate conditions have a large impact on the ability of the State to provide a uniform level of transportation service across LEAs. In addition to variations in geography and demography, variations in local policy affect the everyday experiences of students as they travel to and from school.

One of the most important tools available to Local Education Agency (LEAs in our state is the Transportation Information Management System (TIMS). TIMS, a systems initiative of the North Carolina Department of Public Instruction (through a software license with Education Logistics, Inc.), provides an LEA with a digital, geographic planning tool for student transportation. It features important optimization tools that can be used to improve the efficiency of transportation services. Use of TIMS (or another approved system) is required of all LEAs by G.S. 115C-240(d).

In addition to the benefit derived from the optimization tools, uniform reporting from TIMS makes possible the production of LEA-level and statewide data. In this document, data from all LEAs have been collected and summarized. The goal is to give school transportation providers and local policy makers a tool that will help them assess the quality of the services they provide. In this, its eleventh year, the report continues to provide detailed data on service and operations that are available from no other source. We trust that this information will be useful to LEAs in the transportation planning process.

We want to express appreciation to the TIMS coordinators and data managers statewide who maintain this information, provided as part of annual LEA data submissions. Further, the TIMS support staff at UNC Charlotte and ITRE are to be commended for their ongoing support and coordination in the compilation of these data.

Ben Matthews
Chief Schools Operations Officer

Kevin Harrison, Section Chief
Transportation Services

SAFE AND HEALTHY SCHOOLS SUPPORT DIVISION

Benjamin J. Matthews, Ph.D., Chief School Operations Officer | ben.matthews@dpi.nc.gov
6319 Mail Service Center, Raleigh, North Carolina 27699-6319 | (919) 807-3501 | Fax (919) 807-3502

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

Notes on the 2017-2018 Indicator Data

AVERAGES FOR THE STATE

Throughout the report, North Carolina Averages are calculated from base data rather than from LEA averages.

ANNUAL CHANGE SYMBOLS

These symbols are used in several instances to denote direction of change in an Indicator from the previous year.

- + Increase
- Decrease
- = No change

VARIATIONS IN CODING

Data used in this report are gathered from the one hundred fifteen GIS datasets maintained in school district transportation departments across North Carolina. Though most LEAs use the same software, data coding practices can vary considerably. In some instances, this is due to varying levels of expertise on the part of the data managers; in others, to varying levels of demand being placed upon the data in support of operations; in still others, simply to preference.

BELL TIMES AND PROGRAMS

These data are probably most affected by differences in the ways that data managers approach the use of multiple arrival and departure times at schools. This will serve as the definition of **programs** (special school day schedules with their own, non-standard bell times), school bell times or school arrival/departure windows modified for data purposes, and secondary datasets devoted to transportation for exceptional **programs**. LEA use of TIMS isn't driven by the needs of this report and shouldn't be, but one effect of varied approaches across LEAs is to make it difficult to avoid comparing apples with oranges—or even to tell an apple from an orange. The data items most affected by the use (or lack) of **programs** are 'Average School Bell Time Range' and 'Percentage of Buses Revisiting the Same School PM'.

DATA USED/DATA EXCLUDED

For 'theoretical' reasons—in an effort to make them more meaningful—not all Indicators reflect all the data. The set of data covered by an Indicator is noted in the section of the report devoted to it.

OMITTED VALUES

Data can exhibit a number of problems that don't prevent students from being transported but can make reported values unsuitable for individual examination or inclusion in a descriptive static. If you find that some values have been omitted, it is for this reason.

TIMS Service Indicators Table of Contents

Page	Service Indicator	State Average
2–3	Average Student Ride Time, AM	23 minutes
2–3	Average Distance to School, Riders	4.31 miles
2–3	Average Distance to School, All Students	4.35 miles
4–5	Average of Longest 5% of Student Ride Times	72 minutes
4–5	Average Distance to School for Longest 5% of Ride Times	8.62 miles
6–7	Average of Student-to-Stop Distances < 1 Mile	435 feet
6–7	% of Stop Distances > .5 & < 1 Mile	68
6–7	% of Stop Distances < 1 Mile = 0	33.4
8–9	Earliest Morning Pickup Time*	5:43 AM
10–11	Percent of Routes with Multiple Runs from the Same School	6.1
Operations Choices Affecting Service		
12	Range of School Start Times	58 minutes
13	Average Number of Runs per Rte, PM	1.41
13	Percent of Routes with More than One Run, PM	33%
14	Contacts	back

***State-wide value is the median**

Student Ride Times, AM

DEFINITIONS

This Indicator represents the experience of students in Exceptional Children (EC) and Regular datasets, all programs. Ride times and distances to school equal to 0 are excluded as errors in the data.

Average Ride Time (Minutes): Average of all bus riders’ AM travel to school. This includes only time spent on a moving bus: time spent waiting for a transfer bus to arrive isn’t included. Ride times of 0 are excluded as errors.

Average Distance to School, Riders Only (Miles): TIMS calculates a student’s distance to school by finding the shortest path along the street network. This will not necessarily be the path the bus actually travels. Average distance from home to school for bus riders is shown to provide context for the average morning ride time. Distances of 0 are excluded as errors.

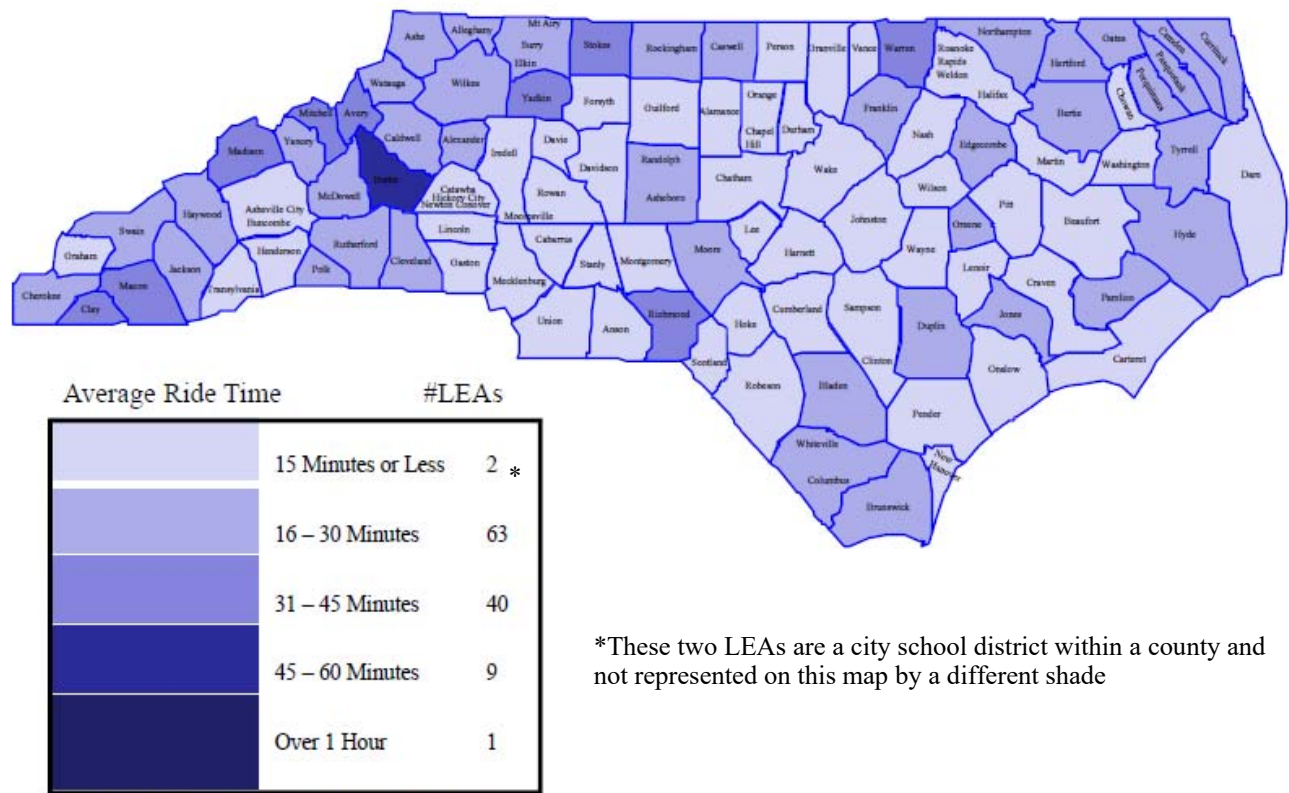
Average Distance to School, All Students (Miles): The average distance for all students enrolled is shown for comparison to the distance for bus riders.

STATE-WIDE AVERAGES	2017-18	2016-17
Average Ride Time	23	24
Average Distance to School, Riders Only	4.31	4.27
Average Distance to School, All Students	4.35	4.31

ABOUT SERVICE

A child’s ride time should correspond roughly to the distance from home to school. However, the expected correspondence is compromised by anything that slows or delays the bus or causes it to depart from the shortest path used to calculate distance to school. LEA policies and site-specific conditions that are beyond the LEA’s control impact student ride time. Policies that can result in longer ride times include the placement of programs for exceptional children and the use of larger buses. The frequency and location of school bus stops also has a significant impact. For instance, locating school bus stops in private subdivisions and routing buses on short dead-end roads takes additional time and results in longer rides. Student population density, traffic congestion, and speed limit are site-specific conditions over which an LEA has little control.

Average Student Ride Time, AM



Source: North Carolina LEAs, 2017-2018 TDTIMS Data

*These two LEAs are a city school district within a county and not represented on this map by a different shade

TIMS Service Indicators, 2017-2018: Student Ride Times, AM

LEA	Avg Ride Time	Average Distance to School		LEA	Avg Ride Time	Average Distance to School		LEA	Avg Ride Time	Average Distance to School	
		Riders Only	All Stu.			Riders Only	All Stu.			Riders Only	All Stu.
Alamance-Burlington	23-	3.45=	3.52-	Edgecombe	32-	5.44+	5.34+	Chapel Hill-Carrboro	13-	2.46-	2.21-
Alexander	40+	4.89-	5.28+	W-S/Forsyth	20=	3.72=	3.85=	Pamlico	32-	7.38+	7.19-
Alleghany	40+	4.81+	5.17+	Franklin	36-	5.85-	5.88-	Pasquotank	31=	4.2-	4.17-
Anson	28=	5.87+	6.16+	Gaston	28=	2.88=	3.11+	Pender	28-	5.4=	5.5+
Ashe	47-	7.7-	7.52-	Gates	43-	7.46+	7.32+	Perquimans	42+	6.93+	6.85-
Avery	58-	6.07-	5.95+	Graham	22=	5.79-	5.53-	Person	29-	5.2-	5.52+
Beaufort	24-	6.2+	6.33+	Granville	27-	5.76-	5.9+	Pitt	19=	3.76-	4+
Bertie	33-	9.02-	8.93-	Greene	36=	7.7+	7.39-	Polk	43=	6.37-	6.58-
Bladen	38=	7.61+	7.64+	Guilford	23=	3.85-	3.81-	Randolph	41=	5.27-	5.33+
Brunswick	33=	6.73-	6.81-	Halifax	28+	7.74+	7.85+	Asheboro	21+	2.24-	-
Buncombe	26-	4.01-	4.29-	Roanoke Rapids	11-	1.77-	1.33=	Richmond	57+	4.45+	4.42
Asheville	17+	2.97+	3.35+	Weldon	21-	4+	4.94+	Robeson	24=	4.18-	4.63+
Burke	117+	3.72-	4.15-	Harnett	28+	5.26+	5.22+	Rockingham	32-	4.79-	4.94-
Cabarrus	18=	3.68-	3.76-	Haywood	42-	4.58+	4.64+	Rowan-Salisbury	23-	3.92-	4.04+
Kannapolis	18+	2.1+	1.98+	Henderson	29-	4.19+	4.44+	Rutherford	31+	4.55+	4.85+
Caldwell	36+	3.99+	4.22+	Hertford	36+	6.91+	6.92+	Sampson	30-	7.01-	6.93-
Camden	38-	8.59+	8.22+	Hoke	18=	5.29-	5.18+	Clinton	27=	3.58+	3.76+
Carteret	29=	5.26-	5.09-	Hyde	32-	12.54-	8.78+	Scotland	25-	5.06+	4.99+
Caswell	40+	9.27+	8.91-	Iredell-Statesville	22=	4.96+	5.17+	Stanly	29-	3.84=	4.39+
Catawba	22=	4.45+	4.5=	Mooreville	19=	2.75+	2.75-	Stokes	46+	5.99=	5.76-
Hickory	23-	2.6+	2.56+	Jackson	38=	5.72+	5.8=	Surry	39=	5.43-	5.51-
Newton-Conover	16-	2.9-	3.2=	Johnston	20=	4.16-	4.2=	Elkin	24+	3.7+	4.1=
Chatham	29=	4.97-	5.09-	Jones	34+	7.74+	7.55+	Mount Airy	24+	2.66+	2.85+
Cherokee	37-	5.79+	5.86+	Lee	26-	4.28=	4.35-	Swain	42+	6.37+	5.94+
Edenton/Chowan	25+	8.75+	8.08-	Lenoir	27-	4.72-	4.82-	Transylvania	28=	4.86-	5.09=
Clay	31-	5.37-	5.28-	Lincoln	30-	4.84+	4.78=	Tyrell	34+	5.05+	4.67-
Cleveland	33=	4.66=	4.68+	Macon	53=	4.88-	5.03+	Union	21+	3.81+	3.9-
Columbus	31-	5.7-	6.03-	Madison	54-	9.17-	9.17-	Vance	28+	4-	4.13+
Whiteville	35+	3.8-	3.92-	Martin	28=	4.53-	4.57-	Wake	18-	4.28+	3.92-
Craven	26-	5.14-	5.01-	McDowell	35+	5.21+	5.77+	Warren	48+	6.72-	6.83-
Cumberland	17-	3.14-	3.07-	Charlotte-Meck.	16=	3.35+	3.45+	Washington	24=	5.42+	5.16+
Currituck	38+	7.15-	7.04-	Mitchell	49=	6.02+	6.03+	Watauga	31+	5.03+	5.38+
Dare	25-	4.2+	4.13+	Montgomery	30+	5.4-	5.56+	Wayne	30-	4.28-	4.56-
Davidson	28=	4.7+	4.74+	Moore	33-	5.13-	5.17-	Wilkes	40+	4.94+	5.48+
Lexington	17+	2.13+	2.21+	Nash-Rocky Mount	23+	3.82-	3.75-	Wilson	25+	4.17-	3.67+
Thomasville	16=	1.81-	1.89-	New Hanover	18+	3.52+	3.43+	Yadkin	55=	5.63+	5.64+
Davie	27+	5.4+	5.77+	Northampton	41+	11.0+	10.8+	Yancey	44=	5.5-	5.52-
Duplin	31-	5.58-	5.65-	Onslow	27+	4.41-	4.24=				
Durham	20-	3.7+	3.74=	Orange	28-	5.54=	5.58+	State Average	23-	4.31+	4.35+

Symbols indicate change from previous year: + = later time or longer distance, — = earlier time or shorter distance, = = no change
Source: NC Local Education Agencies 2017-2018 TIMS Data. Compiled at UNC Charlotte Urban Institute.

Longest 5% of Student Ride Times

DEFINITIONS

This Indicator represents the experience of students in EC and Regular datasets, all programs.

Average of Longest 5% of Student Ride Times (Minutes): The longest 5% of ride times for each LEA were pulled from TIMS data and averaged.

Average Distance for Longest 5% of Ride Times (Miles): The student-to-school distance for a child is the distance along the shortest path that a bus could travel between a child’s home and the child’s school, according to the TIMS digital map maintained by the LEA. It is not the distance the child actually travels. This indicator shows the average of the student-to-school distances for the longest 5% of student ride times within each LEA.

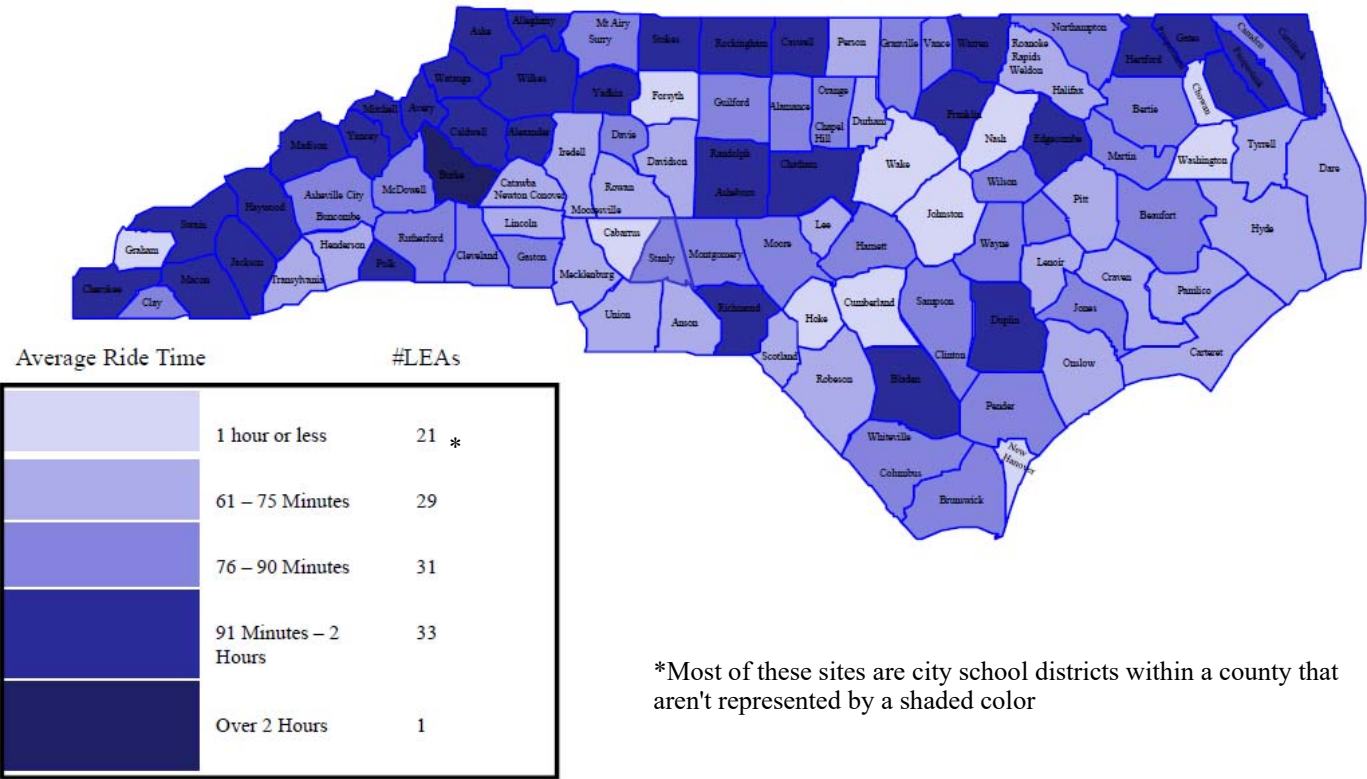
STATE-WIDE AVERAGES	2017-18	2016-17
Average of Longest 5% of Student Ride Times	72	87
Average School Distance for Longest 5% of Ride Times	8.62	8.81

The state-wide values are the averages of the combined sets of each LEA’s longest 5% of ride times and the distances to school associated with them.

ABOUT SERVICE

By highlighting extreme ride times, this indicator illustrates the experience of the students who are receiving what is arguably the worst service as it is measured by the ride time indicator.

Average of Longest 5% of Student Ride Times



Source: North Carolina LEAs TDTIMS Data, 2017-2018

*Most of these sites are city school districts within a county that aren't represented by a shaded color

TIMS Service Indicators, 2017-2018: Longest 5% of Student Ride Times

LEA	Average of Longest 5% Ride Times	Avg Sch Dist for Longest 5% Ride Times	LEA	Average of Longest 5% Ride Times	Avg Sch Dist for Longest 5% Ride Times	LEA	Average of Longest 5% Ride Times	Avg Sch Dist for Longest 5% Ride Times
Alamance-	76-	7.44+	Edgecombe	92=	9.9+	Chapel Hill-Carrboro	33-	3.58+
Alexander	95+	7.76-	W-S/Forsyth	59=	7.95+	Pamlico	70=	10.95=
Alleghany	101-	10.66+	Franklin	93-	9.2+	Pasquotank	94+	6.83+
Anson	67-	10.9+	Gaston	88+	4.41+	Pender	87+	10.78+
Ashe	121-	12.02-	Gates	99-	9.83-	Perquimans	109+	10.39-
Avery	137-	9.95+	Graham	52-	9.82-	Person	75-	9.96-
Beaufort	76-	11.56+	Granville	78-	10.82-	Pitt	66-	7.09+
Bertie	88-	11.58-	Greene	79-	8.95-	Polk	94+	8.86+
Bladen	99+	18.96+	Guilford	77-	9.17+	Randolph	100=	8.6=
Brunswick	87-	12.55+	Halifax	75-	15.62+	Asheboro	52-	2.29-
Buncombe	76-	6.62-	Roanoke Rapids	38+	1.86-	Richmond	118+	6.17-
Asheville	45+	3.49+	Weldon	57-	8.67-	Robeson	66=	6.04-
Burke	456+	7.48-	Harnett	82+	8.13+	Rockingham	103-	8.46-
Cabarrus	47+	7.08+	Haywood	112-	9.1+	Rowan-Salisbury	67-	6.68-
Kannapolis	44+	2.87+	Henderson	74-	6.25+	Rutherford	88+	8.79+
Caldwell	94+	5.94-	Hertford	103+	11.07-	Sampson	82-	10.56+
Camden	89-	13.93+	Hoke	50-	7.24-	Clinton	69-	4.34-
Carteret	69-	10.9-	Hyde	73-	20.68-	Scotland	73-	8.34-
Caswell	94+	14.8+	Iredell-Statesville	61-	8.94-	Stanly	78=	3.84-
Catawba	62-	7.21-	Mooresville	52+	3.47-	Stokes	129+	12.96+
Hickory	59-	2.13-	Jackson	104-	11.78+	Surry	87-	8.04+
Newton-	38-	3.98-	Johnston	52=	6.8-	Elkin	67-	1.28-
Chatham	91-	8.71-	Jones	88-	15.37-	Mount Airy	62+	3.09-
Cherokee	103-	11.29+	Lee	70-	5.51-	Swain	99-	10.56+
Edenton/	57+	11.18-	Lenoir	75-	7.37-	Transylvania	72+	7.49=
Clay	90-	11.2+	Lincoln	74+	5.89+	Tyrell	72+	6.3-
Cleveland	79-	5.66+	Macon	161+	6.66-	Union	63+	8.33=
Columbus	84-	9.22-	Madison	140+	11.39-	Vance	80-	7.5+
Whiteville	89+	6.56-	Martin	80+	8.78+	Wake	56-	10.22+
Craven	75-	12.2-	McDowell	85+	10.8+	Warren	122+	9.94-
Cumber-	51-	5.93-	Charlotte-Meck.	65+	9.68+	Washington	57-	8.7+
Currituck	103+	13.45+	Mitchell	138-	10.16+	Watauga	91+	11.86-
Dare	63-	9.83+	Montgomery	89-	9.25-	Wayne	87-	7.45+
Davidson	74+	6.73+	Moore	85-	7.11+	Wilkes	113+	9.72=
Lexington	52+	3.7-	Nash - Rocky Mount	65=	7.54+	Wilson	78-	6.47-
Thomas-	31-	1.73+	New Hanover	49=	6.51+	Yadkin	120-	7.73-
Davie	83+	8.69-	Northampton	82-	24.24+	Yancey	111-	7.23-
Duplin	95+	8.56-	Onslow	62+	6.68-			
Durham	63+	6.34-	Orange	88+	10.87=	State Average	72-	8.62-

Symbols indicate change from previous year: + = later time or longer distance, — = earlier time or shorter distance, = = no change
Source: NC Local Education Agencies 2017-2018 TIMS Data. Compiled at UNC Charlotte Urban Institute.

Student-to-Stop Distances, AM

DEFINITIONS

This set of Indicators considers the lengths of students’ walks from their homes to their stops. It represents the experience of students in EC and Regular datasets, all programs. Distances of 0 are included; negative distances are excluded as data errors. Under the assumption that no child in North Carolina walks a mile or more to their stop and since some students travel to their stops via private conveyance, distances of 1 mile and greater were removed from consideration.

Average of Student-to-Stop Distances < 1 Mile, AM: The average walk from home to stop for distances less than one mile. In feet.

% of Stop Distances .5 & < 1 Mile: This small percentage of all riders represents those with the longest walks to stops and others who ride to a stop. A bus is not to deviate from its path for a distance of less than one half mile for fewer than ten students (except in the cases of unescorted pupils in grades K-3 or special education pupils) and no child can be

STATE-WIDE AVERAGES	2017-18	2016-17
Average of Student-to-Stop Distances < 1 Mile, AM (feet)	435	432
% of Stop Distances > .5 & < 1 Mile	68	67
% of Stop Distances < 1 Mile = 0	33.4	33.6

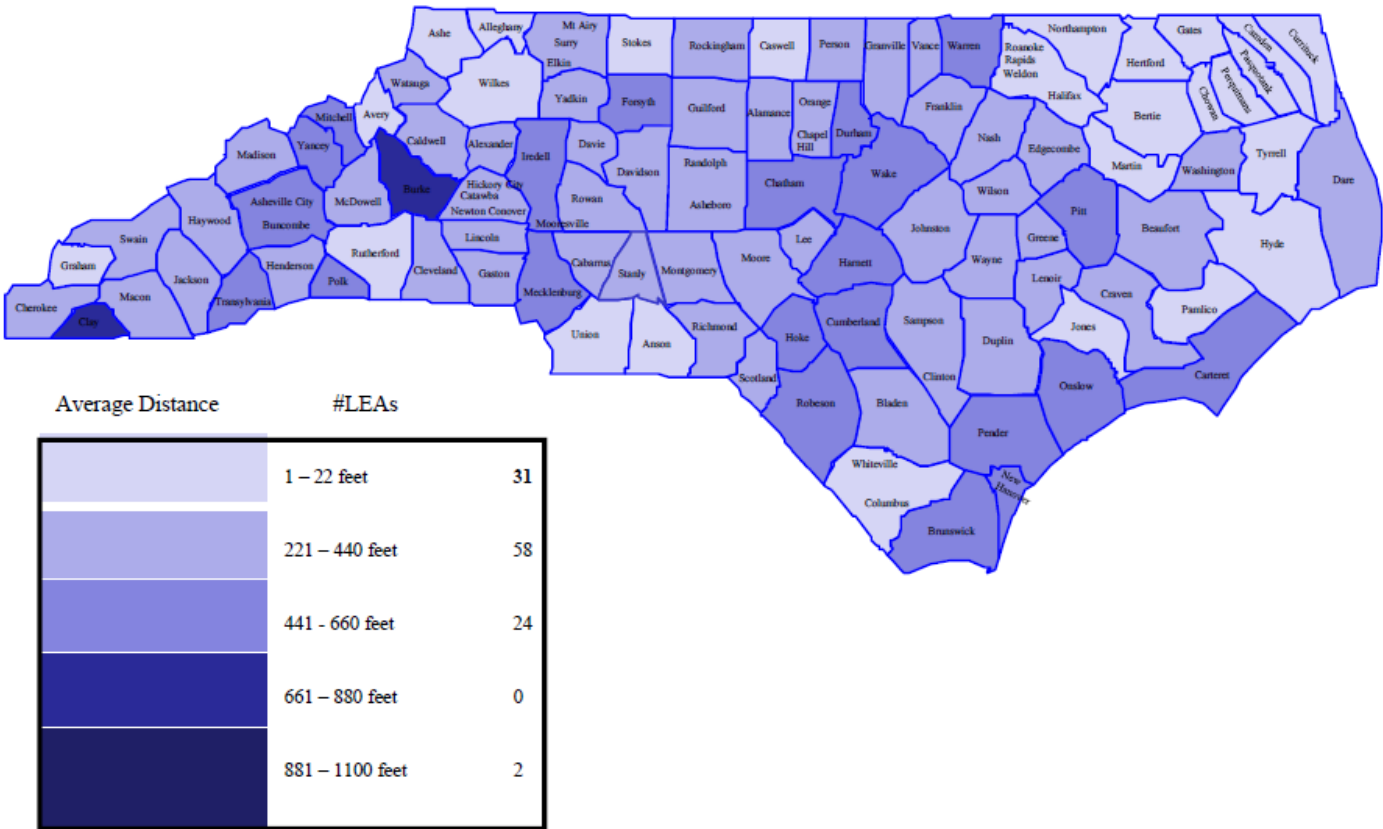
required to walk more than 1 mile to a stop.

% of Stop Distances < 1 Mile = 0: Percent of students with stop distances less than one mile that are picked up immediately in front of their home.

ABOUT SERVICE

The student-to-stop distance has two interpretations for service. Individuals typically see a very short distance to stop as positive for service. However, when a bus makes a greater number of stops in order to provide students with bus-to-door service, the student ride times generally increase.

Average of Student-to-Stop Distances



Source: North Carolina LEAs, 2017-2018 TDIMS Data

TIMS Service Indicators, 2017-2018: Student-to-Stop Distances, AM (feet)

LEA	Avg of Dist <1 Mile	% of Dist > .5 & <1	% of Dist <1 Mile = 0	LEA	Avg of Dist < 1	% of Dist > .5 & <1	% of Dist < 1 Mile = 0	LEA	Avg of Dist < 1 Mile	% of Dist > .5 & <1 Mile	% of Dist <1 Mile =
Alamance	255-	0.39-	46.97+	Edgecombe	441+	0.92+	38.59-	Chapel Hill-	428-	0.68-	23.64+
Alexander	319+	1.37+	46.47-	W-S/Forsyth	355+	1.12-	31.44+	Pamlico	162-	0.84-	74.58+
Alleghany	213-	1.66-	68.97+	Franklin	241-	0.95+	49.23-	Pasquotank	185+	0.31+	59.95-
Anson	116-	0.24+	72.64+	Gaston	121-	0.43+	38.35-	Pender	543+	2.48+	27.88-
Ashe	163-	1.47-	82.05+	Gates	18+-	0.3-	73.61-	Perquimans	84+	0.26+	84.03-
Avery	191-	1.47+	66.35+	Graham	304+	1.67+	73.4-	Person	310-	0.3-	43.7-
Beaufort	376-	2.38+	43.01+	Granville	281-	1.26-	61.08+	Pitt	583-	0.35-	11.33+
Bertie	128-	0.23-	67.72+	Greene	389+	0.43+	50.41-	Polk	441-	4.25-	54.25+
Bladen	429+	1.07+	34.75+	Guilford	219-	1.25+	33.21+	Randolph	267+	0.99-	57.4-
Brunswick	460+	1.53+	33.25+	Halifax	436+	0.51+	60.71+	Asheboro	353+	0.04-	29.95-
Buncombe	461-	2.04-	44.36-	Roanoke Rapids	249-	0.4-	14.98+	Richmond	238+	0.9-	65.12-
Asheville	617-	1.53+	27.74+	Weldon	593+	0.92-	65.08+	Robeson	485+	2.15+	31.39-
Burke	1102+	11.87+	18.22-	Harnett	432-	3.18=	22.34+	Rockingham	278+	0.64-	53.48-
Cabarrus	335-	0.4-	27.35+	Haywood	390-	2.46-	44.53+	Rowan-Salis.	282-	1.08-	56.34-
Kannapolis	214-	0.2-	46.32+	Henderson	147-	1.47+	46.85+	Rutherford	140+	0.63-	74.78-
Caldwell	286+	1.02+	51.65+	Hertford	566+	0.62-	67.35+	Sampson	433+	1.29+	38.77-
Camden	141+	0.42+	71.12+	Hoke	118-	2.11+	15.76-	Clinton	348+	0.13-	39.73-
Carteret	455+	2.42+	42.56+	Hyde	442+	0.57-	61.76+	Scotland	242+	1.7-	54.82-
Caswell	193+	1.37+	79.04-	Iredell	319-	1.81-	37.61-	Stanly	379+	0.83+	38.71+
Catawba	380-	1.45-	39.69+	Mooresville	367+	0.16+	25.76+	Stokes	187-	0.92-	71.59+
Hickory	520-	3.07-	25.78+	Jackson	408+	1.46-	54.59+	Surry	285-	2.08-	58.61+
Newton-Conover	255-	0.44+	48.99-	Johnston	166-	0.46-	37.18-	Elkin	126-	0.42-	69.28-
Chatham	627+	3.88+	38.84+	Jones	437+	1.04+	70.83-	Mount Airy	148-	0.33-	64.91+
Cherokee	302-	2.4+	64.04+	Lee	253-	1.48+	34.65-	Swain	321-	2.33-	58.88+
Edenton/Chowan	103-	0.07+	60.53+	Lenoir	379+	0.77+	56.61-	Transylvania	529+	3.44-	41.7-
Clay	1112+	11.25+	18.46=	Lincoln	393-	1.79-	47.07+	Tyrell	112+	0.56-	74.37+
Cleveland	237+	0.87+	53.5-	Macon	258-	2.32+	45.9-	Union	208-	0.15-	49.1+
Columbus	156-	0.58-	73.68-	Madison	207-	1.05+	67.68+	Vance	362-	1.99-	49.46+
Whiteville	181-	0.33+	63.96-	Martin	318+	1.36-	64.72-	Wake	652+	0.6+	18.41-
Craven	353+	0.75-	32.36+	McDowell	580+	0.59-	32.33+	Warren	441-	2.01+	36.32+
Cumberland	474+	0.06+	12.75-	Charlotte-Meck.	483-	0.47-	10.48-	Washington	239+	2.68+	64.02+
Currituck	220-	0.32+	58.39+	Mitchell	384-	4.83-	52.87+	Watauga	257-	1.3-	71.46+
Dare	336+	1.05+	42.9+3	Montgomery	407+	2.78+	48.7+	Wayne	190-	0.21-	51.23+
Davidson	232+	0.31-	54.12-	Moore	392-	3.29-	53.17+	Wilkes	145-	0.22-	73.75+
Lexington	258-	0.07-	33.35-	Nash-Rocky Mt	551+	0.17+	25.75+	Wilson	405+	0.55+	30.84-
Thomasville	348-	0.06+	25.68+	New Hanover	159-	1.91-	30.33-	Yadkin	336-	0.35-	38.61-
Davie	387+	0.75+	43.74-	Northampton	524+	1.42+	82.92+	Yancey	448+	3.84+	46.45-
Duplin	235+	0.3-	50.61+	Onslow	322-	1.83+	26.83+				
Durham	529+	1.29+	28.4+	Orange	304=	1.7+	55.56+	State Average	435+	68+	33.4-

Symbols indicate change from previous year: + = later time or longer distance, - = earlier time or shorter distance, = = no change
Source: NC Local Education Agencies 2017-2018 TIMS Data. Compiled at UNC Charlotte Urban Institute.

Earliest Morning Pickup Time

DEFINITIONS

The Indicator covers all stops used by students in all programs and datasets.

Earliest Morning Pickup Time: This is the earliest time that a bus arrives at a stop to pick up a child.

Arrival Time: The time that students boarding at the earliest pickup location arrive at school. If more than one student uses the earliest stop, or if more than one stop share the earliest time, the arrival time of the child with the longest ride time is shown.

ABOUT SERVICE

Extremely early pickup times are obviously, in themselves, an issue of service. When coupled with a long ride, an early

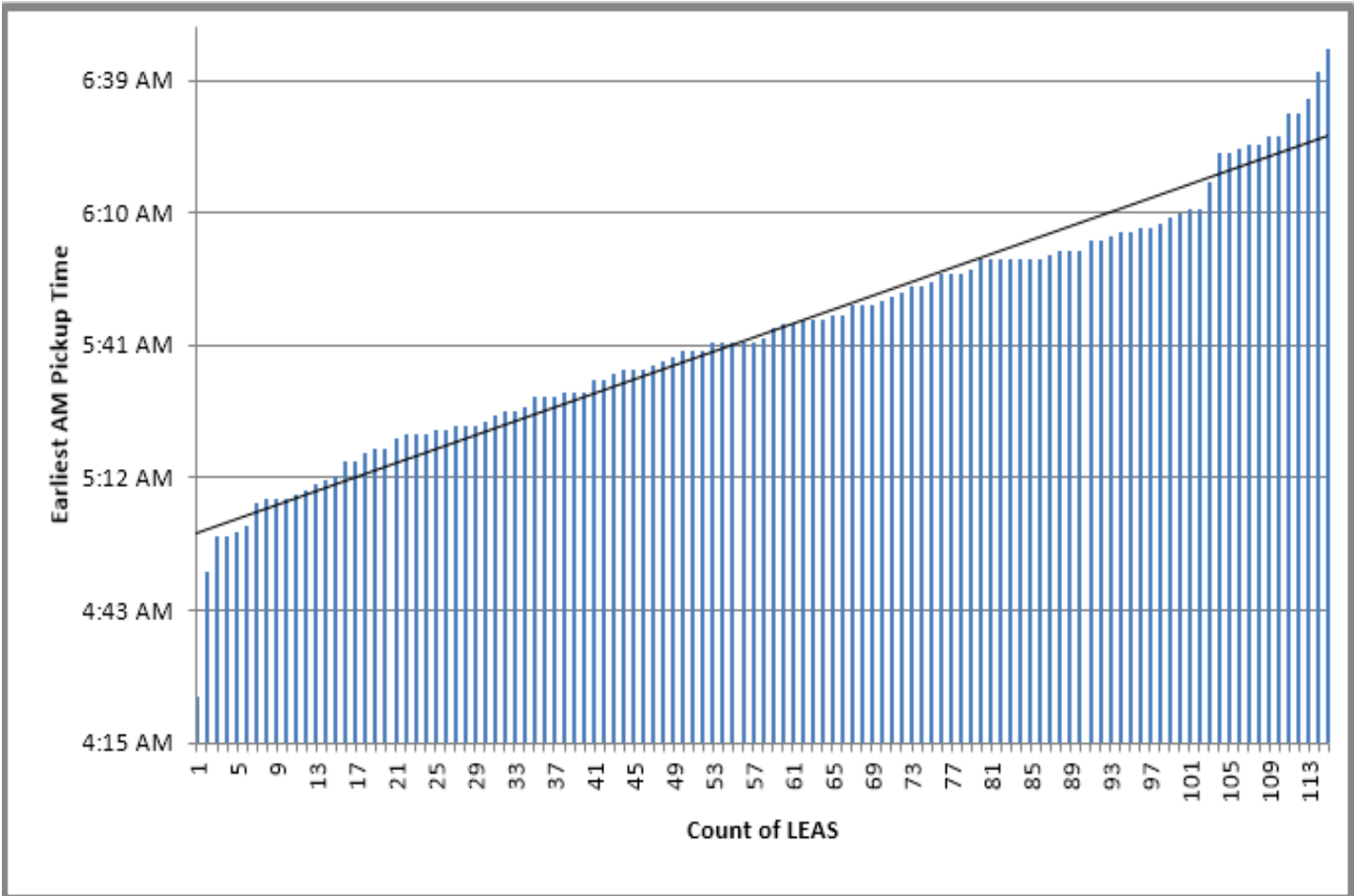
STATE-WIDE MEDIAN	2017-18	2016-17
Earliest Morning Pickup Time	5:43AM	5:27 AM

pickup might present a student with a particularly challenging start to the day.

Very early pickup times for students may be caused by several things. Use of early bell times that necessitate early run starts is one.

These data represent one or more students at one stop, not the overall average. The LEA ride time averages (pages 4-5) yield a better understanding of how these specific cases relate to a district’s overall operations.

Earliest Morning Pickup Time



TIMS Service Indicators, 2017-2018: Earliest Morning Pickup Time

LEA	Earliest Pickup AM	Arrival Time	LEA	Earliest Pickup AM	Arrival Time	LEA	Earliest Pickup AM	Arrival Time
Alamance	5:31 AM-	7:25 AM-	Edgecombe	5:47 AM+	7:15 AM-	Chapel Hill	6:32 AM-	7:15 AM-
Alexander	6:00 AM-	7:30 AM-	W-S/Forsyth	5:07 AM-	8:05 AM+	Pamlico	6:06 AM-	7:33 AM-
Alleghany	5:21 AM-	7:30 AM-	Franklin	6:00 AM+	7:10 AM-	Pasquotank	5:42 AM+	7:55 AM+
Anson	5:35 AM-	7:10 AM-	Gaston	5:46 AM-	7:05 AM+	Pender	5:09 AM-	7:08 AM-
Ashe	5:19 AM-	7:55 AM-	Gates	5:57 AM-	7:50 AM-	Perquimans	5:38 AM-	8:00 AM=
Avery	4:52 AM+	8:00 AM-	Graham	6:27 AM+	7:30 AM-	Person	6:25 AM+	7:46 AM-
Beaufort	5:54 AM+	8:00 AM+	Granville	5:34 AM-	7:31 AM-	Pitt	5:40 AM+	7:10 AM-
Bertie	5:48 AM+	7:30 AM+	Greene	6:07 AM+	7:35 AM+	Polk	6:10 AM+	7:55 AM+
Bladen	5:26 AM-	7:30 AM-	Guilford	5:27 AM-	7:40 AM-	Randolph	5:30 AM-	7:30 AM+
Brunswick	5:24 AM-	7:30 AM-	Halifax	5:48 AM-	7:35 AM-	Asheboro	6:24 AM+	7:20 AM-
Buncombe	5:28 AM+	7:51 AM+	Roanoke Rapids	6:41 AM+	7:29 AM-	Richmond	5:18 AM-	8:15 AM-
Asheville	5:45 AM-	7:28 AM-	Weldon	6:11 AM+	7:30 AM-	Robeson	5:58 AM-	7:30 AM-
Burke	5:30 AM+	6:54 AM-	Harnett	5:01 AM+	7:25 AM+	Rockingham	5:25 AM-	7:30 AM-
Cabarrus	5:16 AM-	7:00 AM-	Haywood	5:08 AM-	7:30 AM-	Rowan-Salisbury	5:31 AM+	7:10 AM-
Kannapolis	6:06 AM+	7:05 AM-	Henderson	6:01 AM+	7:30 AM-	Rutherford	5:22 AM-	7:20 AM-
Caldwell	5:31 AM+	7:15 AM-	Hertford	5:24 AM-	7:48 AM-	Sampson	5:42 AM+	7:21 AM-
Camden	5:53 AM-	7:47 AM-	Hoke	6:17 AM+	7:11 AM-	Clinton	5:50 AM+	7:22 AM+
Carteret	5:50 AM+	7:25 AM-	Hyde	6:09 AM+	7:25 AM-	Scotland	5:39 AM+	7:10 AM-
Caswell	5:42 AM-	7:41 AM-	Iredell	5:43 AM+	7:00 AM-	Stanly	5:52 AM+	7:27 AM-
Catawba	6:00 AM+	7:10 AM-	Mooreville	6:11 AM+	7:05 AM-	Stokes	4:24 AM-	8:00 AM=
Hickory City	6:04 AM-	6:55 AM-	Jackson	5:40 AM+	7:32 AM-	Surry	6:00 AM+	7:43 AM-
Newton-Conover	6:32 AM+	7:15 AM-	Johnston	5:11 AM-	6:45 AM-	Elkin	6:35 AM+	7:20 AM-
Chatham	5:10 AM-	7:30 AM-	Jones	6:00 AM=	7:45 AM-	Mount Airy	6:23 AM-	7:45 AM-
Cherokee	5:19 AM-	7:35 AM-	Lee	6:02 AM+	7:00 AM-	Swain	5:36 AM+	7:45 AM+
Edenton/Chowan	6:23 AM-	7:30 AM-	Lenoir	5:42 AM+	8:30 AM+	Transylvania	6:07 AM-	7:50 AM-
Clay	6:08 AM+	7:55 AM+	Lincoln	5:47 AM+	7:35 AM+	Tyrell	6:27 AM-	7:40 AM-
Cleveland	6:00 AM-	8:30 AM-	Macon	5:30 AM-	7:50 AM=	Union	5:51 AM+	7:00 AM-
Columbus	6:04 AM+	7:45 AM-	Madison	5:57 AM+	7:51 AM-	Vance	6:00 AM-	7:26 AM-
Whiteville	5:27 AM-	7:19 AM-	Martin	5:57 AM-	7:35 AM-	Wake	5:08 AM+	7:25 AM=
Craven	5:40 AM-	7:10 AM-	McDowell	5:54 AM+	7:45 AM-	Warren	5:08 AM-	7:32 AM-
Cumberland	5:36 AM-	7:06 AM-	Charlotte-Meck.	5:00 AM=	6:46 AM-	Washington	6:05 AM=	7:20 AM-
Currituck	5:34 AM+	7:43 AM-	Mitchell	5:00 AM-	7:15 AM-	Watauga	5:36 AM-	7:25 AM-
Dare	6:25 AM=	7:49 AM=	Montgomery	5:24 AM-	7:21 AM-	Wayne	5:16 AM+	7:15 AM-
Davidson	5:47 AM-	7:44 AM-	Moore	5:22 AM+	7:35 AM+	Wilkes	5:12 AM-	7:39 AM-
Lexington	6:02 AM=	7:07 AM-	Nash Rocky MT	5:02 AM-	6:58 AM-	Wilson	5:23 AM-	7:00 AM=
Thomasville	6:46 AM+	7:25 AM-	New Hanover	6:02 AM=	7:30 AM-	Yadkin	5:42 AM+	7:50 AM-
Davie	5:55 AM-	8:05 AM+	Northampton	5:46 AM-	7:45 AM-	Yancey	5:13 AM-	7:40 AM-
Duplin	5:22 AM=	7:40 AM-	Onslow	5:23 AM+	6:50 AM-			
Durham	5:37 AM+	7:15 AM-	Orange	5:50 AM-	8:20 AM-	State Median	5:43 AM+	

Symbols indicate change from previous year: + = later time or longer distance, — = earlier time or shorter distance, = = no change
Source: NC Local Education Agencies 2017-2018 TIMS Data. Compiled at UNC Charlotte Urban Institute.

% of Routes with Multiple Runs from the Same School

DEFINITIONS

This Indicator includes only afternoon portions of routes for the default program for Regular Transportation. The calculation counts each bus with multiple same-school runs once, whether it visits the school two, three or more times.

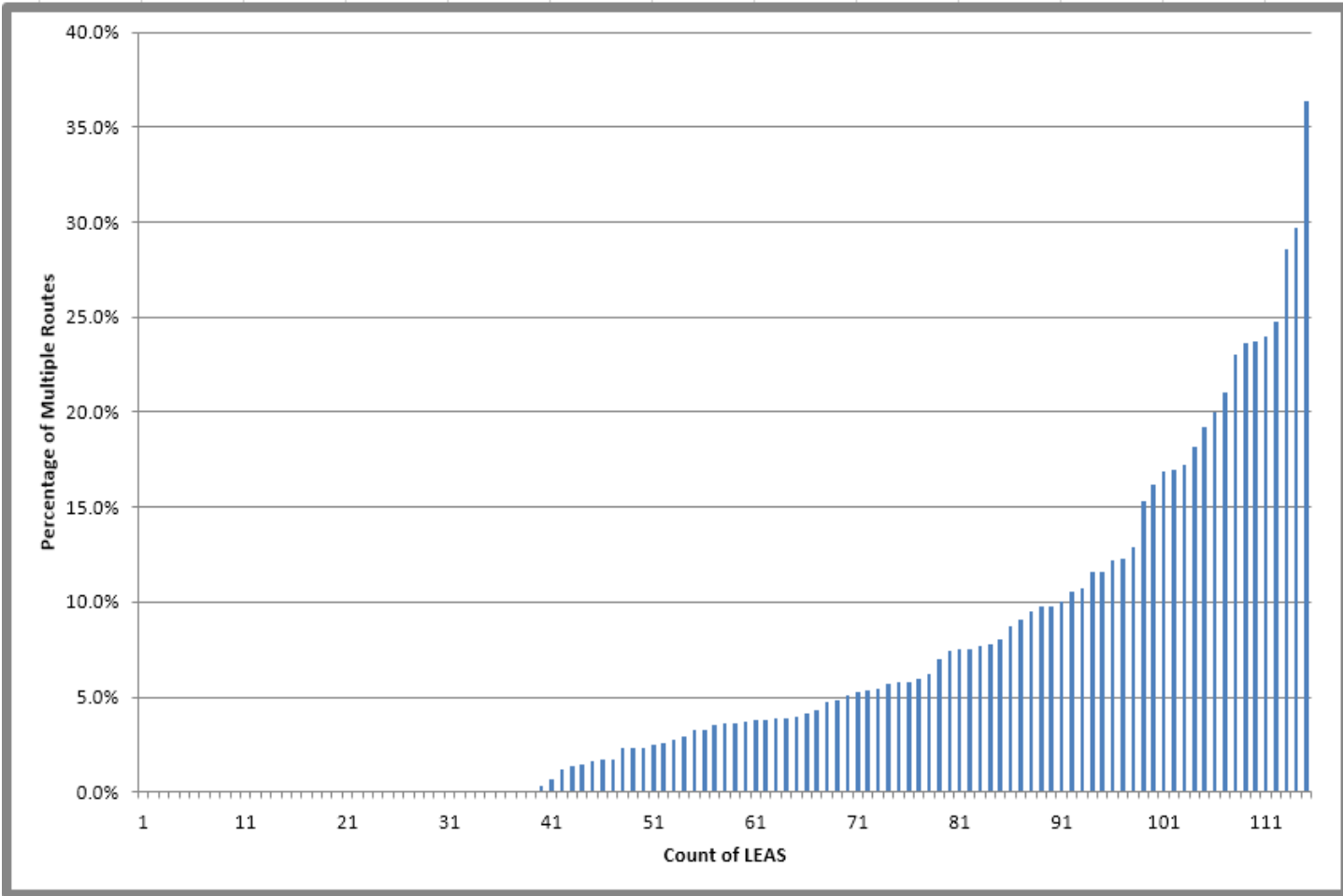
ABOUT SERVICE

Multiple runs from the same school require that a second and possibly third load of students wait at the school in the afternoon while the bus completes its prior run. This is often unproductive time for students and the staff members charged

STATE-WIDE AVERAGES	2017-18	2016-17
Percent of Routes with Multiple Runs from the Same School	6.1	6.4

with their supervision. The use of multiple runs to the same school is an efficiency strategy used by districts that has direct impact on children’s waiting time.

Percent of Routes with Multiple Runs from the Same School



TIMS Service Indicators, 2017-2018: % of Routes with Multiple Runs from the Same School

LEA	% of Routes with Multiple Runs from Same School	LEA	% of Routes with Multiple Runs from Same School	LEA	% of Routes with Multiple Runs from Same School
Alamance-Burlington	24.0%=	Edgecombe	3.6%+	Chapel Hill-Carrboro	0.0%=
Alexander	0.0%=	W-S/Forsyth	3.2%-	Pamlico	8.7%-
Alleghany	0.0%=	Franklin	9.8%-	Pasquotank	2.9%-
Anson	0.0%=	Gaston	16.9%+	Pender	7.5%+
Ashe	0.0%=	Gates	0.0%=	Perquimans	0.0%=
Avery	3.7%+	Graham	0.0%=	Person	1.5%+
Beaufort	0.0%=	Granville	3.9%-	Pitt	6.0%+
Bertie	0.0%=	Greene	0.0%-	Polk	0.0%=
Bladen	1.4%+	Guilford	10.0%+	Randolph	4.8%-
Brunswick	0.7%=	Halifax	0.0%=	Asheboro	21.1%+
Buncombe	36.3%=	Roanoke Rapids	0.0%=	Richmond	0.0%-
Asheville	17.2%=	Weldon City	0.0%=	Robeson	12.3%-
Burke	19.2%+	Harnett	1.2%=	Rockingham	23.0%-
Cabarrus	0.0%-	Haywood	9.7%+	Rowan-Salisbury	7.0%+
Kannapolis	0.0%-	Henderson	29.7%-	Rutherford	10.5%+
Caldwell	15.3%-	Hertford	3.6%+	Sampson	0.0%=
Camden	4.3%+	Hoke	5.4%+	Clinton	3.8%=
Carteret	0.0%-	Hyde	0.0%=	Scotland	2.7%-
Caswell	0.0%=	Iredell-Statesville	5.3%+	Stanly	12.2%+
Catawba	3.9%+	Mooreville	7.5%+	Stokes	6.3%+
Hickory	8.0%+	Jackson	0.0%=	Surry	2.3%-
Newton-Conover	7.4%+	Johnston	5.1%-	Elkin	28.6%=
Chatham	11.6%-	Jones	0.0%=	Mount Airy	0.0%=
Cherokee	2.3%-	Lee	5.7%=	Swain	9.1%+
Edenton/Chowan	0.0%=	Lenoir	0.0%-	Transylvania	20.0%=
Clay	0.0%=	Lincoln	24.8%+	Tyrell	0.0%=
Cleveland	3.5%-	Macon	5.8%-	Union	1.7%-
Columbus	0.0%=	Madison	0.0%=	Vance	4.8%-
Whiteville	4.2%-	Martin	0.0%=	Wake	23.7%-
Craven	5.8%+	McDowell	7.8%+	Warren	0.0%=
Cumberland	2.3%+	Charlotte-Meck.	0.3%=	Washington	0.0%=
Currituck	0.0%-	Mitchell	10.7%+	Watauga	2.5%=
Dare	0.0%=	Montgomery	1.7%-	Wayne	16.9%+
Davidson	9.5%+	Moore	5.4%-	Wilkes	23.7%-
Lexington	18.2%-	Nash-Rocky Mount	0.0%=	Wilson	3.8%-
Thomasville	7.7%=	New Hanover	3.8%+	Yadkin	1.6%-
Davie	16.2%+	Northampton	0.0%=	Yancey	2.6%=
Duplin	0.0%=	Onslow	12.8%-		
Durham	11.6%+	Orange	3.3%-	State Average	6.1-

Symbols indicate change from previous year: + = later time or longer distance, — = earlier time or shorter distance, = = no change.

Source: NC Local Education Agencies 2017-2018 TIMS Data. Compiled at UNC Charlotte Urban Institute.

TIMS Service Indicators, 2017-2018: School Start Times, AM

A larger range of bell times makes it easier to use buses efficiently without revisiting the same school. Revisiting a school, as noted on pages 10 and 11, can be detrimental to service levels. The State values for First and Last are medians. The Range is the average.

School Start Times				School Start Times				School Start Times			
LEA	First	Last	Range	LEA	First	Last	Range	LEA	First	Last	Range
Alamance-Burlington	7:30-	8:45+	1:15+	Edgecombe	7:40=	8:55=	1:15=	Chapel Hill	7:50=	8:45-	0:55-
Alexander	7:05-	8:00-	0:55+	W-S/Forsyth	7:25=	9:15=	1:50=	Pamlico	7:55=	8:05=	0:10=
Alleghany	7:45=	7:55=	0:10=	Franklin	7:44=	9:00=	1:16=	Pasquotank	7:20-	8:30=	1:10+
Anson	7:30=	8:15=	0:45=	Gaston	7:45=	9:00=	1:15=	Pender	7:20=	8:45=	1:25=
Ashe	7:50=	8:20=	0:30=	Gates	8:00=	8:03-	0:03-	Perquimans	7:55=	8:00=	0:05=
Avery	7:50=	8:15=	0:25=	Graham	7:50=	8:00=	0:10=	Person	8:00=	8:30=	0:30=
Beaufort	7:40=	9:00=	1:20=	Granville	7:20=	9:00=	1:40=	Pitt	7:15-	8:55+	1:40+
Bertie	7:45=	8:05=	0:20=	Greene	7:55=	8:05=	0:10=	Polk	7:50=	8:15=	0:25=
Bladen	7:45=	8:00=	0:15=	Guilford	7:30=	9:50+	2:20+	Randolph	7:40-	9:00=	1:20+
Brunswick	7:45=	8:45=	1:00=	Halifax	7:40=	8:00+	0:20+	Asheboro	7:45=	8:30=	0:45=
Buncombe	7:30=	8:40=	1:10=	Roanoke Rapids	7:30=	8:30=	1:00=	Richmond	8:00=	8:30=	0:30=
Asheville	8:00=	9:00=	1:00=	Weldon City	7:40=	8:00=	0:20=	Robeson	7:45=	8:30=	0:45=
Burke	7:42=	8:24=	0:42=	Harnett	7:10+	8:40+	1:30+	Rockingham	7:30=	8:45=	1:15=
Cabarrus	7:15=	9:00=	1:45=	Haywood	8:00=	9:00=	1:00=	Rowan-Salisbury	7:30=	9:30=	2:00=
Kannapolis	7:15=	8:45+	1:30+	Henderson	7:50=	8:30=	0:40=	Rutherford	7:30=	8:30=	1:00=
Caldwell	7:50=	8:30=	0:40=	Hertford	7:45=	8:15=	0:30=	Sampson	7:30=	8:30=	1:00=
Camden	7:55=	8:15=	0:20=	Hoke	7:50=	9:00=	1:10=	Clinton	7:10=	7:45=	0:35-
Carteret	7:30=	8:15=	0:45=	Hyde	7:35=	7:35=	0:00=	Scotland	7:40=	9:00+	1:20+
Caswell	7:45=	8:30=	0:45=	Iredell-Statesville	7:30=	8:40=	1:10=	Stanly	7:45=	8:30+	0:45+
Catawba	7:25-	8:45+	1:20+	Mooresville	7:30=	8:45+	1:15+	Stokes	7:40=	8:30=	0:50=
Hickory	7:30+	9:00=	1:30-	Jackson	8:00=	8:15=	0:15=	Surry	7:45=	8:20=	0:35=
Newton-Conover	7:30=	8:15=	0:45=	Johnston	7:10=	11:00+	3:50+	Elkin	8:00=	8:05=	0:05=
Chatham	7:55=	8:10=	0:15=	Jones	7:30=	7:55=	0:25=	Mount Airy	7:40=	8:10=	0:30=
Cherokee	7:45=	8:30=	0:45=	Lee	7:30=	8:00=	0:30=	Swain	7:55=	8:00=	0:05=
Edenton/Chowan	7:50=	8:30=	0:40=	Lenoir	7:45=	9:00=	1:15=	Transylvania	8:00=	8:20=	0:20=
Clay	8:00=	8:00=	0:00=	Lincoln	7:45=	8:30=	0:45=	Tyrell	7:50=	8:00=	0:10=
Cleveland	7:35=	8:30=	0:55=	Macon	7:50=	8:10=	0:20=	Union	7:30=	9:30=	2:00=
Columbus	7:40=	9:15=	1:35=	Madison	8:00=	8:20-	0:20-	Vance	7:45-	8:25-	0:40-
Whiteville	7:50=	8:00=	0:10=	Martin	7:45=	7:55=	0:10=	Wake	7:10-	10:00+	2:50+
Craven	7:30=	9:00=	1:30=	McDowell	7:55=	8:30=	0:35=	Warren	8:00=	8:15=	0:15=
Cumberland	7:30=	9:30=	2:00=	Charlotte-Meck	7:15=	9:15=	2:00=	Washington	7:40-	8:00=	0:20+
Currituck	8:00=	9:00=	1:00=	Mitchell	7:25-	8:30=	1:05+	Watauga	7:45=	9:00=	1:15=
Dare	7:25=	8:30=	1:05=	Montgomery	7:30-	8:15+	0:45+	Wayne	7:30=	10:50=	3:20=
Davidson	7:40=	9:00=	1:20=	Moore	7:20=	8:45=	1:25=	Wilkes	7:45=	8:01=	0:16=
Lexington	7:30=	8:20=	0:50=	Nash Rocky MT	7:20=	10:30=	3:10=	Wilson	7:00=	10:30+	3:30+
Thomasville	7:30=	8:00=	0:30=	New Hanover	7:45=	9:20=	1:35=	Yadkin	7:55=	8:05=	0:10=
Davie	7:45-	8:45=	1:00+	Northampton	7:50-	8:30=	0:40+	Yancey	7:40=	8:02=	0:22=
Duplin	7:55-	8:15=	0:20+	Onslow	7:05-	9:30+	2:25+				
Durham	7:25=	9:15=	1:50=	Orange	7:55=	8:45=	0:50=	State	7:40=	8:30-	58+

Source: NC Local Education Agencies 2017-2018 TIMS Data. Compiled at UNC Charlotte Urban Institute.

TIMS Service Indicators, 2017-2018: **Runs per Route, PM**

Average Runs per Route: The average number of separate runs (trips) each bus makes in the afternoon. % of Routes >1 Run: The percentage of buses making more than one run in the afternoon. A bus is considered to have completed a run when it has unloaded

LEA	Avg Runs per Route	% Rtes > 1 Run	LEA	Avg Runs per Route	% Rtes > 1 Run	LEA	Avg Runs per Route	% Rtes > 1 Run
Alamance-Burlington	1.63-	53%-	Edgecombe	1.16-	13%-	Chapel Hill-Carrboro	2.68+	100%+
Alexander	1.00-	0%-	W-S/Forsyth	2.82-	96%=	Pamlico	1.09=	9%=
Alleghany	1.00=	0%=	Franklin	1.33+	32%+	Pasquotank	1.45-	42%-
Anson	1.06+	6%+	Gaston	1.69-	61%-	Pender	1.52=	51%=
Ashe	1.14=	14%=	Gates	1.00=	0%=	Perquimans	1.00=	0%=
Avery	1.26-	26%-	Graham	1.00=	0%=	Person	1.06=	6%=
Beaufort	1.23+	21%+	Granville	1.13-	16%-	Pitt	1.59+	54%+
Bertie	1.05=	5%=	Greene	1.13-	13%-	Polk	1.00=	0%=
Bladen	1.01=	1%=	Guilford	2.45+	92%+	Randolph	1.07-	7%-
Brunswick	1.50-	42%-	Halifax	1.00=	0%=	Asheboro	2.21+	100%+
Buncombe	1.62+	56%+	Roanoke Rapids	2.33+	92%+	Richmond	1.01-	1%-
Asheville	2.21-	100%+	Weldon	1.53-	40%-	Robeson	1.18-	16%-
Burke	1.22=	22%=	Harnett	1.22=	22%=	Rockingham	1.37-	37%-
Cabarrus	2.70-	94%-	Haywood	1.11=	11%=	Rowan-Salisbury	1.51=	45%=
Kannapolis	2.65-	95%-	Henderson	1.32-	31%-	Rutherford	1.31+	23%+
Caldwell	1.23-	20%-	Hertford	1.04=	4%=	Sampson	1.03=	3%=
Camden	1.04+	4%+	Hoke	1.99=	93%=	Clinton	1.31+	31%+
Carteret	1.00-	0%-	Hyde	1.00=	0%=	Scotland	1.47+	47%+
Caswell	1.00=	0%=	Iredell-Statesville	1.66=	64%=	Stanly	1.16+	14%+
Catawba	1.49+	47%+	Mooreville	2.03=	100%=	Stokes	1.24-	24%-
Hickory	2.04-	80%-	Jackson	1.03-	3%=	Surry	1.06-	6%-
Newton-Conover	1.67-	63%-	Johnston	2.05-	69%-	Elkin	1.57=	57%=
Chatham	1.14=	12%=	Jones	1.00=	0%=	Mount Airy	1.00=	0%=
Cherokee	1.02-	2%-	Lee	1.22=	22%=	Swain	1.09=	9%=
Edenton/Chowan	1.00=	0%=	Lenoir	1.09-	9%-	Transylvania	1.23=	23%=
Clay	1.00=	0%=	Lincoln	1.34+	32%=	Tyrell	1.00=	0%=
Cleveland	1.04-	4%-	Macon	1.06-	6%-	Union	2.54+	99%+
Columbus	1.00-	0%-	Madison	1.00=	0%=	Vance	1.18-	18%-
Whiteville	1.04=	4%=	Martin	1.00=	0%=	Wake	2.77-	94%-
Craven	1.38+	33%+	McDowell	1.11+	11%+	Warren	1.00=	0%=
Cumberland	1.68-	65%-	Charlotte-Meck.	2.63-	98%+	Washington	1.08+	8%+
Currituck	1.30+	30%+	Mitchell	1.28-	28%-	Watauga	1.40=	38=
Dare	1.35+	33%=	Montgomery	1.07=	7%=	Wayne	1.60-	56%+
Davidson	1.39+	37%+	Moore	0.51-	39%-	Wilkes	1.24-	24%-
Lexington	2.74=	91%=	Nash-Rocky Mt.	1.99+	80%+	Wilson	1.56+	45%+
Thomasville	2.08=	100%=	New Hanover	2.04-	89%-	Yadkin	1.03-	3%-
Davie	1.16=	16%=	Northampton	1.00=	0%=	Yancey	1.05=	5%=
Duplin	1.00=	0%=	Onslow	1.94-	78%-			
Durham	2.30+	95%-	Orange	1.67-	64%-	State Average	1.41-	33%-

Source: NC Local Education Agencies 2017-2018 TIMS Data. Compiled at UNC Charlotte Urban Institute.

2017-2018 TIMS Service Indicator Report

CONTACT INFORMATION:

North Carolina Department of Public Instruction

919.807.3570

Adam Levinson, *Chief Financial Officer, Financial and Business Services*

Ben Matthews, *Director, Safe and Healthy Schools Support Division*

Kevin Harrison, *Section Chief, Transportation Services*

Institute for Transportation Research and Education

919.515.8899

North Carolina State University

Downey Brill, *Interim Director*

Marc Perez, *Computer Support Analyst*

Kevin Hart, *Computer Support Analyst*

UNC Charlotte Urban Institute

704.687.1204

University of North Carolina at Charlotte

Jeff Michael, *Director*

Jody Pressley, *Business Applications Analyst*

Phil York, *Computer Support Analyst*

Ian Tyndall, *Data Base Administrator*

