



CONNECTING COMMUNITIES
OF EDUCATION STAKEHOLDERS

CCES CONFERENCE

INNOVATIVE PATHWAYS TO

Personalized Learning

TIMS & PowerSchool: Understanding Interactions Between The Two Systems





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TIMS & PwerSchool

Session Outline:

- What is TIMS?
- How is PowerSchool Data used in TIMS?
- Understanding Student Address Errors
 - Correcting Address Errors
 - Preventing Address Errors

TIMS & PowerSchool

Session Outline (cont.) :

- The Student Transportation Page
 - Options for managing AM/PM Stop Requests
 - Options for identifying students with a special transportation need
- Importing accurate TIMS Bus Stop Data into PowerSchool

TIMS & PowerSchool

Session Outline (cont.) :

- Helping TIMS Staff Prepare for August Bus Routes
 - TIMS and Student Pre-Transition Data
- Helping TIMS Staff Prepare for Summer School
 - Program Locations and Final Enrollment
 - Summer Student Spreadsheet for TIMS
 - New Tool to Help TIMS Staff with Summer School Routing
 - Proper Time to Plan and Prepare Summer Bus Routes

TIMS & PowerSchool

Understanding Interactions Between The Two Systems

- What is TIMS?
- How is PowerSchool Data used in TIMS?
- Understanding Student Address Errors
 - Correcting Address Errors
 - Preventing Address Errors

What is TIMS?

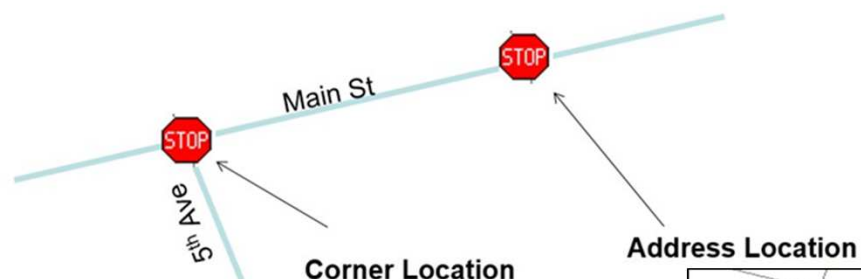
Transportation Information Management System

- TIMS is essentially the use of School Bus Routing Software to pre-plan bus routes, track buses, stop locations, student assignments, driver hours, bus mileage, travel times, and more!
- TIMS offers the ability to examine and track current school bus routes and analyze potential improvements before implementing them on the road.
- North Carolina is the only state where each county or school district has the same school bus routing software.

THE TIMS System

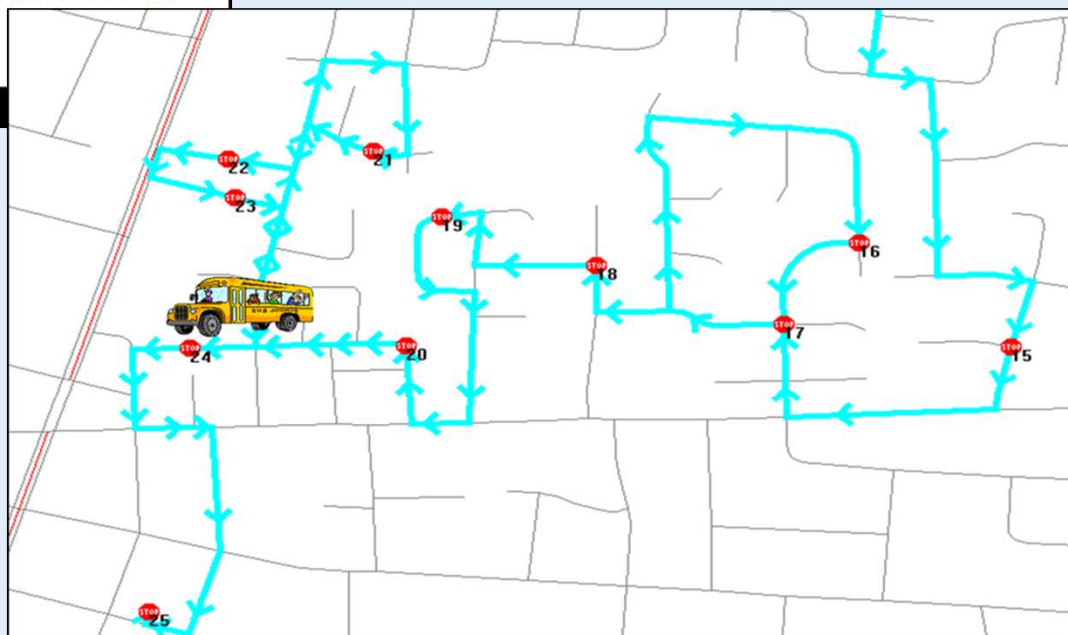
- Fulfills Legislative Mandate
- Promotes Efficiency Improvements
- Offers Safety Enhancements
 - Documents Student Ridership Information
 - Documents Railroads and other Route Hazards
- Contingency Planning
 - Snow Routes
 - Flood Routes
- District Wide Enrollment Analysis
- School Boundary Planning

Stops can be located at a specific address or at a street corner.

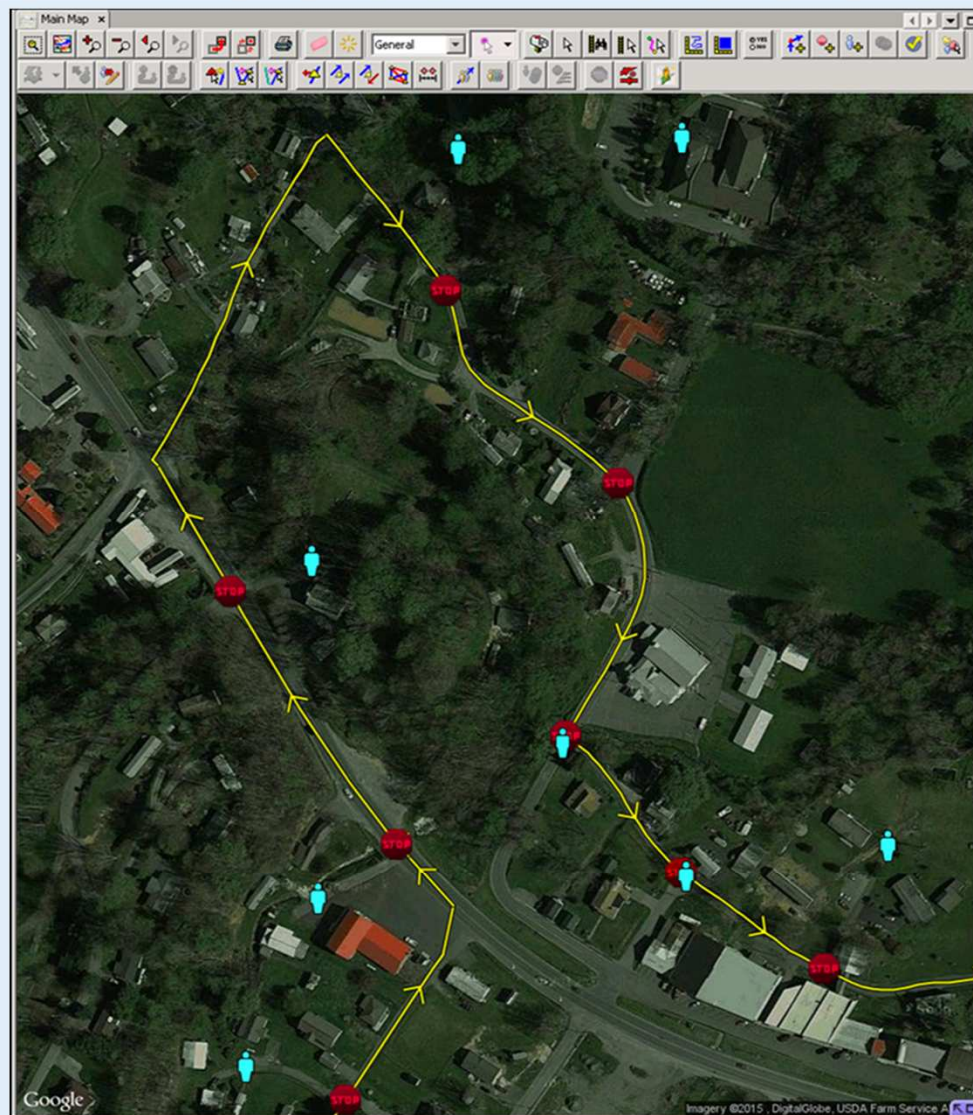


TIMS allows transportation staff to analyze stop requests and create safe bus stops for each student riding the bus.

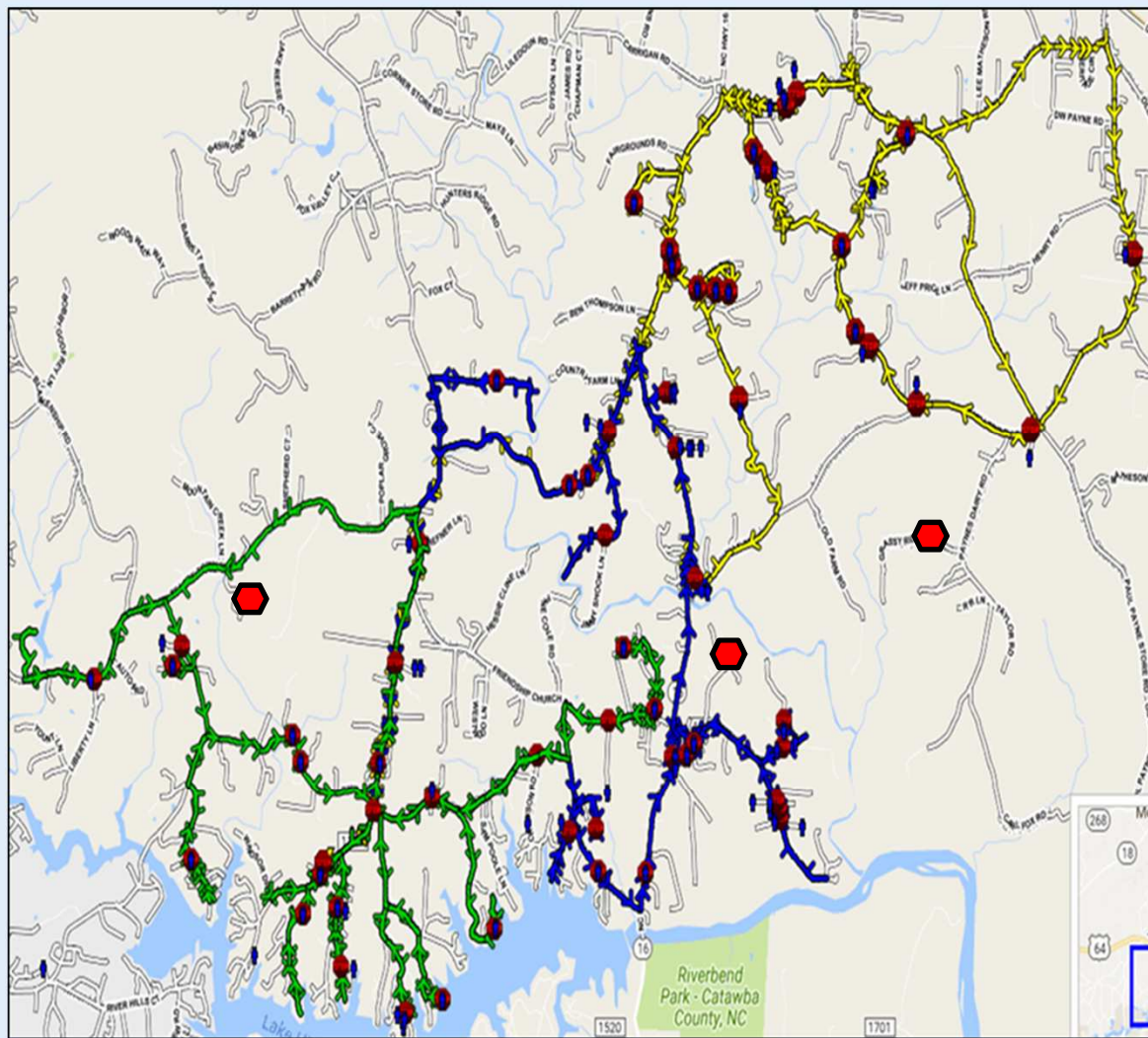
Transportation Staff review stop requests, student locations and bus capacity as they design bus routes for your LEA.



The new version of TIMS (eSQL) interfaces with Google Maps so staff can view satellite images and street views when creating stops, assigning students and designing bus routes.



TIMS provides the Transportation Department the ability to view multiple routes at once to help find solutions for over/under crowded buses, or the best fit for a new stop request.

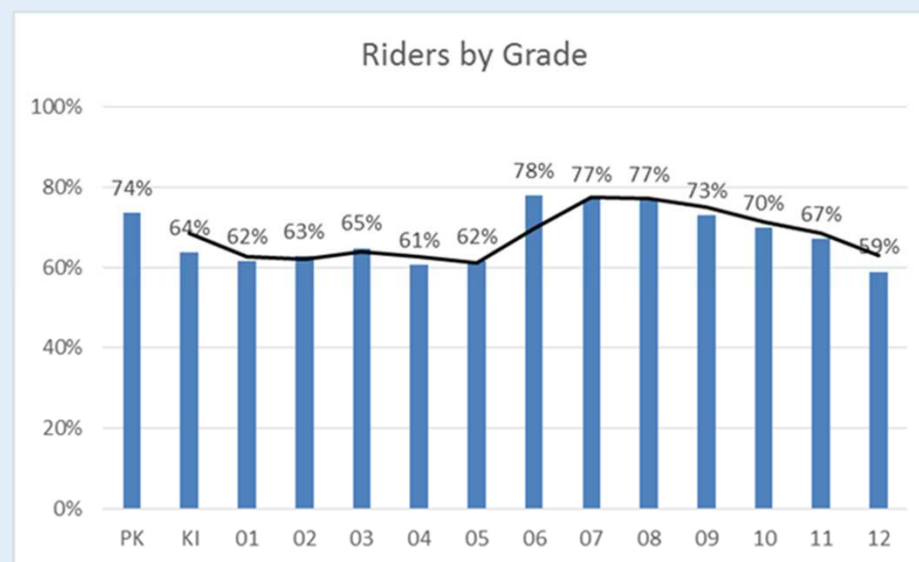
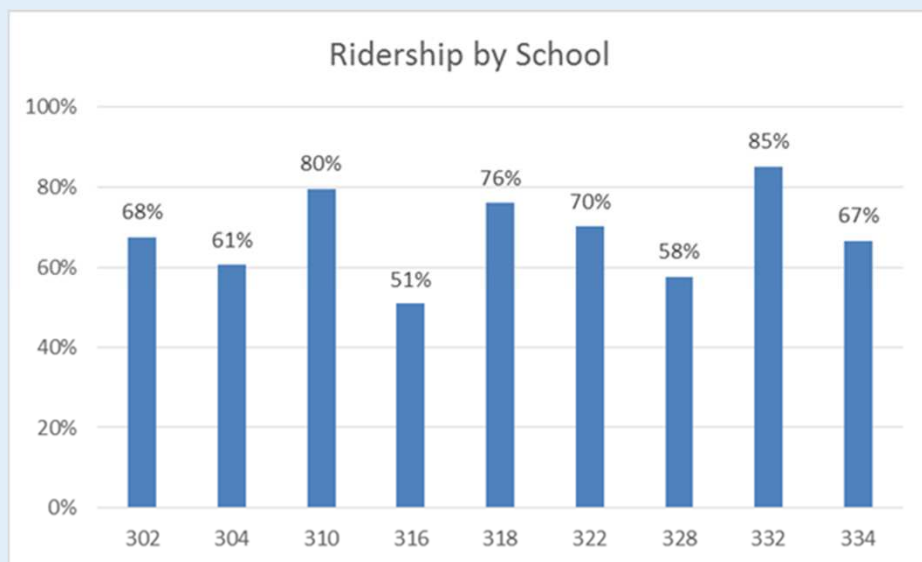


TIMS Reports & Other Data

- Passenger Lists and dozens of other reports can be printed directly from TIMS.
 - Route Directions for Substitute Drivers
 - Passenger Lists and Bus Accident Reports
 - Driver Time and Payroll Hour Estimates
 - Student Bus Passes and Assignment Slips
 - Bus Rider Spreadsheets for Open House

Passenger Lists by Run						
Run ID: WPI.001		Description: WPI RUN 370				
Last name, First name	Address	Home Phone #	School	Grade		
ABC, KAMREN	915 ALLEN RD	5154433222	406	01		
AXS, HEAVEN	915 ALLEN ROAD	1112226666	406	01		
BER, DEVONRICK	919 ALLEN RD	2223334444	404	05		
CCV, JASON	960 SPRING FOREST ROAD	5556667777	406	01		
CLL, TYHEIM	510 SPRING FOREST RD	0009990000	404	03		
DAG, RAEGENE	940 SPRING FOREST ROAD	0009990000	406	01		
DEF, TINYA	510 SPRING FOREST RD	1231234567	404	04		
DLL, TIFFANY	913 ALLEN ROAD	3332227777	406	02		
EEH, UZZIAH	520 SPRING FOREST ROAD	4445554444	406	01		

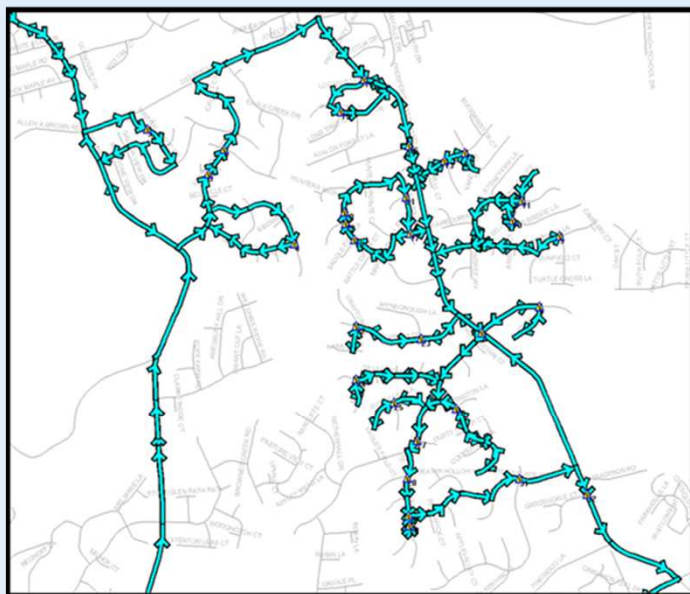
Ridership Analysis by School & Grade



Cost Analysis of Routing Changes

(Less Door Stops and More Corner Stops)

Before



Cost: 31 miles one way
62 miles per day
 $62 \times \$2.00 = 124.00$
 $\$124.00 \times 180 \text{ days} = \$22,320$

After



Cost: 18 miles one way
36 miles per day
 $36 \times \$2.00 = 72.00$
 $\$72.00 \times 180 \text{ days} = \$12,960$

\$9,360 savings for 1 bus

Boundary Planning & School Capacity

TIMS also offers school enrollment analysis and allows staff to look at how school capacity would change by shifting school boundary lines.

Here's your tally

	01	02	03	04	05	Total
304	3	4	2	2	1	12
310	1	0	0	1	1	3
320	1	0	0	0	0	1
330	90	79	98	88	71	426
332	1	0	0	2	0	3
334	6	2	3	2	0	13
336	2	0	1	1	1	5
338	0	0	0	1	2	3
358	1	0	0	0	0	1
360	0	1	0	0	0	1
376	1	0	0	0	0	1
379	181	106	119	104	109	619
380	153	117	93	118	105	586
382	1	3	5	5	3	17
390	1	0	1	1	1	4
396	0	0	0	1	0	1
400	1	5	2	1	0	9
404	0	0	37	34	26	97
406	49	23	0	0	0	72
Total	492	340	361	361	320	1874

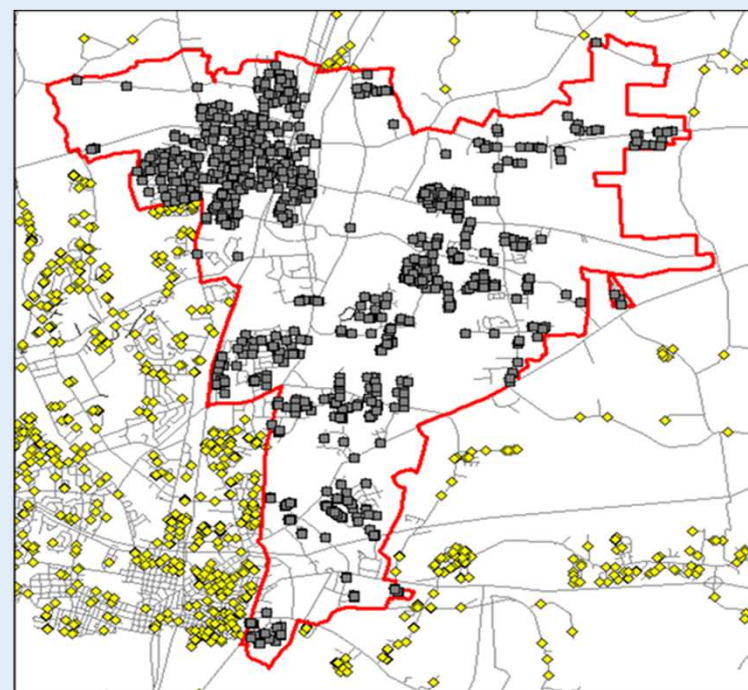
Tally view
 Down the side
 FIRSTNAME
 GRADE
 LAST NAME
 RACE
 RES ADDR
SCHOOL
 CEV

Along the top
 FIRSTNAME
GRADE
 LAST NAME
 RACE
 RES ADDR
 SCHOOL
 CEV

Switch side and top

☐ Show %'s
☒ Show Totals
 Colors...

Print Export Close





Annual TIMS Service Indicators

The Annual TIMS School Bus Audit takes place every November and all LEAs are required to submit a copy of their most current bus routes and student assignments for review and analysis, as well as for funding purposes.

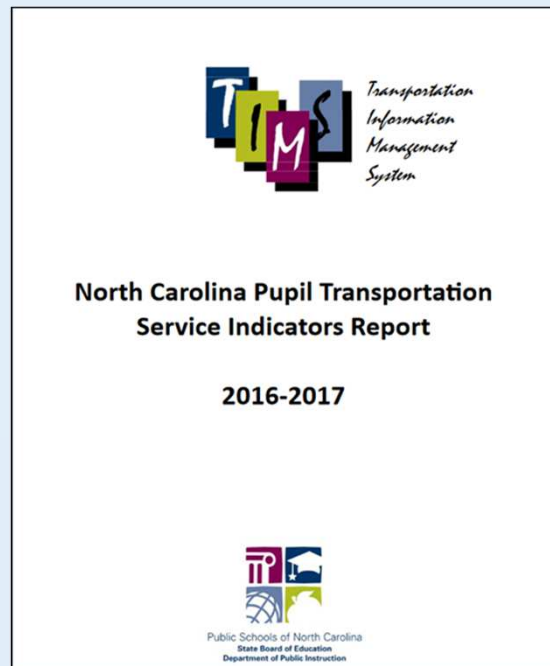
Each year we tally the data from all LEAs to produce the North Carolina Pupil Transportation Service Indicators Report.

This report contains data for each LEA as well as the statewide tallies, totals and averages for public school bus services.



Annual TIMS Service Indicators

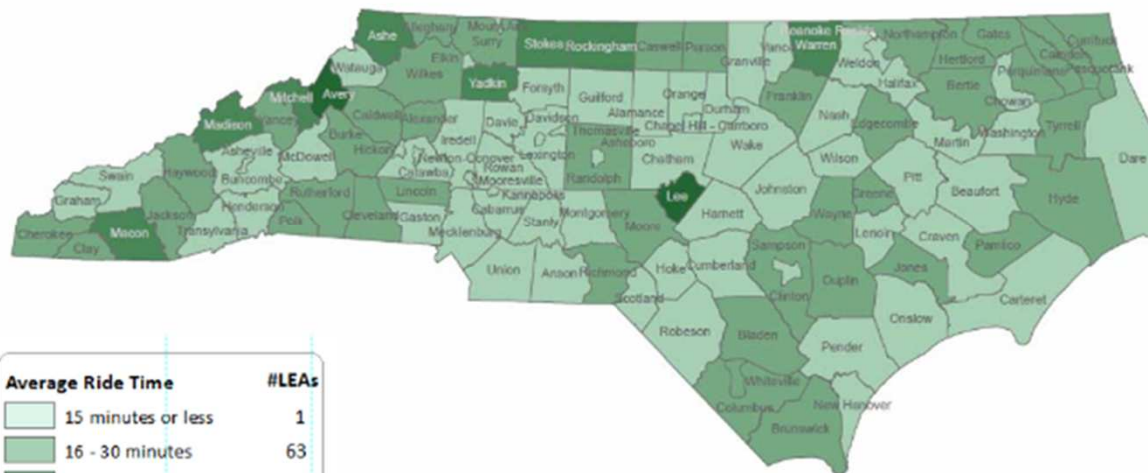
This annual report, dating back to 2006, can be found on the NC Bus Safety Website.



TIMS Service Indicators Table of Contents		
Page	Service Indicator	State Average
2-3	Average Student Ride Time, AM	24 minutes
2-3	Average Distance to School, Riders	4.27 miles
2-3	Average Distance to School, All Students	4.31 miles
4-5	Average of Longest 5% of Student Ride Times	83 minutes
4-5	Average Distance to School for Longest 5% of Ride Times	8.81 miles
6-7	Average of Student-to-Stop Distances < 1 Mile	432 feet
6-7	% of Stop Distances > .5 & < 1 Mile	.67
6-7	% of Stop Distances < 1 Mile = 0	33.6
8-9	Earliest Morning Pickup Time*	5:27 AM
10-11	Percent of Routes with Multiple Runs from the Same School	2.38

Annual TIMS Service Indicators

Average Student Ride Time, A.M.



Average Ride Time	#LEAs
15 minutes or less	1
16 - 30 minutes	63
31 - 45 minutes	42
46 - 60 minutes	8
Over 1 hour	1

Source: North Carolina LEAs, 2016-2017

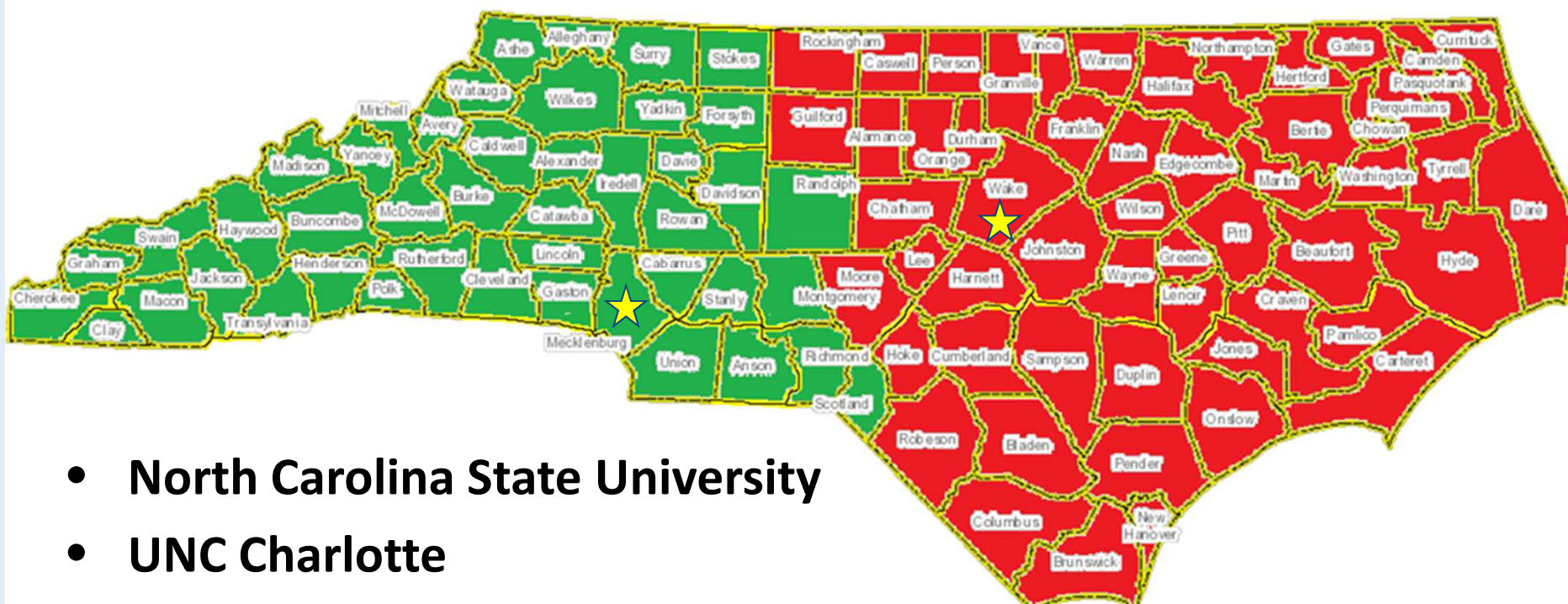
TIMS Service Indicators, 2016-2017: Student Ride Times, AM

LEA	Average Distance to School			LEA	Average Distance to School			LEA	Average Distance to School		
	Avg Ride Time	Riders Only	All Stu.		Avg Ride Time	Riders Only	All Stu.		Avg Ride Time	Riders Only	All Stu.
Alamance-Burlington	25+	3.45-	3.54-	Edgecombe	34+	5.36-	5.22-	Chapel Hill-Carrboro	29+	2.61+	2.38-
Alexander	37+	5.07=	5.07-	W-S/Forsyth	20=	3.72+	3.85+	Pamlico	33-	7.3-	7.22-
Alleghany	39+	4.7-	5.04+	Franklin	37+	5.8+	5.84+	Pasquotank	31=	4.26-	4.22=
Anson	28-	5.58-	5.89-	Gaston	28+	2.88+	3.09+	Pender	29+	5.47-	5.47-
Ashe	48-	7.79-	7.55-	Gates	44+	7.34+	7.28+	Perquimans	40=	6.9=	6.89+
Avery	60+	6.09+	5.89+	Graham	22-	5.88-	5.58-	Person	30=	5.24+	5.45+
Beaufort	25+	6.13-	5.99-	Granville	29+	5.86-	5.87-	Pitt	19-	3.84-	3.99-
Bertie	35+	9.08-	8.95	Greene	36+	7.63-	7.26-	Polk	43=	6.48-	6.43+
Bladen	38+	7.42+	7.45+	Guilford	23+	3.91+	3.83+	Randolph	41+	5.33+	5.31+
Brunswick	33=	6.78-	6.98-	Halifax	27+	7.42+	7.55+	Asheboro	20=	2.3+	2.33+
Buncombe	27=	4.18+	4.36+	Roanoke Rapids	12=	1.81+	1.33-	Richmond	40+	4.11+	4.38-
Asheville	16=	2.94-	3.42+	Weldon	22+	3.92-	4.73-	Robeson	24=	4.32+	4.53+
Burke	32-	4.0=	4.29+	Harnett	27+	5.25+	5.21-	Rockingham	49+	4.89+	5.06+
Cabarrus	18+	3.73+	3.82+	Haywood	43+	4.35-	4.56+	Rowan-Salisbury	24+	3.96=	3.99-
Kannapolis	17=	2.00=	1.94+	Henderson	30+	4.14-	4.22-	Rutherford	30=	4.5=	4.82-
Caldwell	33+	3.92+	4.19+	Hertford	31-	6.48-	6.43-	Sampson	34+	7.11+	6.97+
Camden	42+	8.56-	8.21-	Hoke	18-	5.33-	5.17-	Clinton	27-	3.4-	3.76-
Carteret	29+	5.53-	6.69+	Hyde	33-	12.93-	8.73-	Scotland	26-	5-	4.91-

TIMS Project Support Offices

Classroom Training, Routing Consultation & TIMS Software Support

North Carolina TIMS School Bus Data



- North Carolina State University
- UNC Charlotte

What is TIMS?

TIMS is a complex computer program that allows for preplanning and analysis of bus routes before implementing them on the road.

Tracks student ridership, driver hours, bus miles, bus loads, bus capacity and offers advanced Optimization features to help improve the efficiency of school bus routes... and plenty more too!

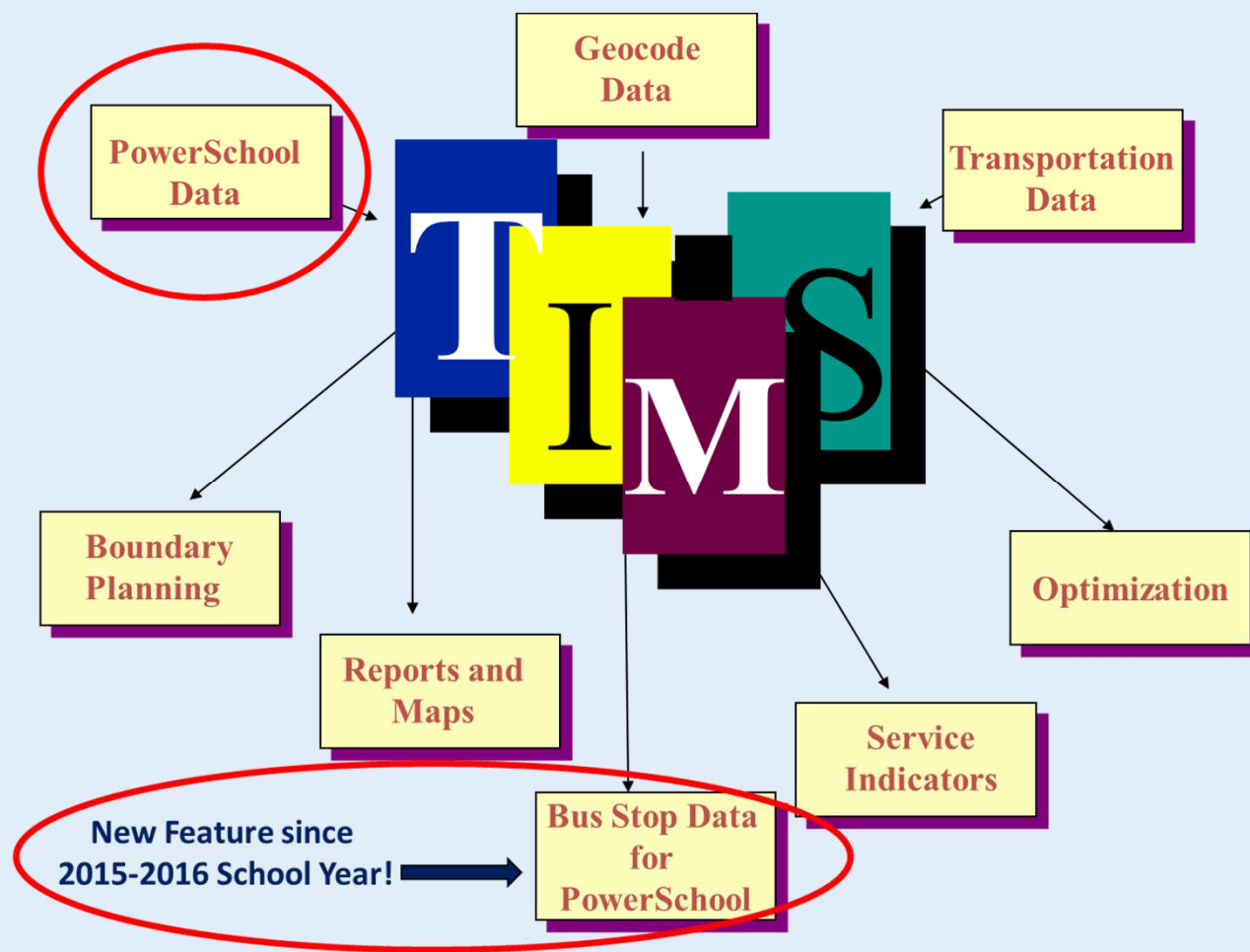
TIMS is so much more than just
“Putting Kids on a Bus”



PowerSchool Data in TIMS



PowerSchool Data in TIMS



PowerSchool Data in TIMS

Student Information from PowerSchool

- Current School and Grade
- Pre-Transition Data (Next School, Next Grade)
- Gender, DOB, Race/Ethnicity
- Home & Mailing Addresses
- Parental and Emergency Contact Information
- Student Transportation Needs
 - Transportation Requests for All Students (if used)
 - Transportation Requirements for Student with Special Transportation Needs (if used)

PowerSchool Data in TIMS

TIMS Maps typically come from County GIS or Tax Dept.

- Contains official street names and address information for your county.
- Allows TIMS to Calculate Time and Distances
 - Student Distance to School and Walk Distance to Bus Stop
 - Student Pick-Up and Drop-Off Times
 - Daily Bus Miles and Path of Travel
 - Driver Payroll Hours
 - Optimization for Bus Route Efficiency

Student Records in TIMS

TIMS contains a record of all students enrolled in each LEA. An extract is obtained by the Transportation Department and the Student Data from PowerSchool is imported into TIMS.

The accuracy of student addresses entered into PowerSchool is vital to the Transportation Department.

Incorrect Addresses can lead to hours of corrections and edits by the Transportation Staff

Student Address Information

An accurate Street Address may contain each of the following pieces of information.

- **House Number**
- Street Prefix (North, South, Northwest, Southeast, etc.)
- **Street Name (Elm, Main, Pine)**
- **Street Type (Road, Lane, Avenue)**
- Street Suffix (North, South, Northwest, Southeast, etc.)
- Zip Code (if you have two streets with the same name in different cities)
- **House Number, Street Name and Street Type are the minimal requirements for all student addressing.**

Common Address Errors

There are a number of *common mistakes** made by data managers across the state when entering student address information into PowerSchool

- Missing or Incorrect Street Information
 - Missing or Incorrect Street Types
 - Missing or Incorrect Prefixes and Suffixes
- Simple Misspellings
- Apartment and Lot Numbers Entered Incorrectly

**Most of the time, the parent has written down the wrong information and Data Managers just type in what was provided. Let's look at some common errors and ways to prevent them in the future.*

Missing or Incorrect Street Info

Mistakes seen across the state involve student addressing that is missing the street type entirely or has the incorrect street type

Examples:

- 356 Maple Leaf
 - Maple Leaf what? ... Road, Street, Avenue, Boulevard, etc. is missing
 - Parent may have left off the Street Type or PowerSchool Data Entry Error
- 356 Maplewood Road
 - This is actually Maplewood Lane as the parent supplied the incorrect street type (Road, not Lane) and the school data manager has typed this into PowerSchool.

Missing or Incorrect Street Info

This example shows three different Maple Streets in one county.

	MAPLE	ST
N	MAPLE	ST
S	MAPLE	ST

- Each of these are their own street with their own addressing.
- If the student lives at 501 N Maple Street but the “N” Prefix is not entered into PowerSchool, then TIMS would place the student on the other side of the county, in the wrong city, where the address of 501 Maple Street is actually located.
- Pay close attention to Prefixes and Suffixes within your LEA

Simple Misspellings and Spacing

- It is important that student addressing is parsed correctly in order for the Student Upload to work properly and Address Match each Student.
- Pay attention not only to Prefix and Suffix information but also to the official spelling and spacing of street names throughout your district.
- Example:
 - Is it Pine View Lane or Pineview Lane?
 - Is it Maplewood Drive or Maple Wood Drive?

Simple Misspellings and Spacing

Prefix	Street	Type	Suffix
	MCKNIGHT	RD	
	MEADOW BROOK	CT	
	MEADOW CREEK	CT	
	MEADOW CREST	DR	
	MEADOW GLEN	LN	
	MEADOW RIDGE	DR	
	MEADOWLARK	LN	
	MEADOWS EDGE	DR	
	MEADOWVIEW	RD	

	MAPLE	ST	
N	MAPLE	ST	
S	MAPLE	ST	
	MAPLE CREEK	DR	
	MAPLE FALLS	WY	
	MAPLE VIEW	DR	
	MAPLEGROVE	LN	
	MAPLEHILL	CT	
	MAPLELEAF	RD	
	MAPLEWOOD	LN	

Prefix	Street	Type	Suffix	Zone
	PILGRIM CHURCH	RD		
	PILOTS	LN		
	PIN OAK	LN		
	PINE	ST		28677
	PINE	ST		28115
	PINE BARK	CT		
	PINE BLUFF	DR		
	PINE CLIFF	LN		
	PINE GROVE	LN		
	PINE HAVEN	RD		
	PINE HOLLOW	DR		
	PINE KNOLL	LN		
	PINE MEADOW	LN		
	PINE MIST	DR		
	PINE NEEDLE	LN		
	PINE STATE	RD		
	PINE TREE	RD		
	PINE VALLEY	DR		
	PINECROFT	CT		
	PINEDELL ACRES	DR		
	PINEHURST	RD		
	PINEHURST FOREST	PL		
	PINERIDGE	DR		
	PINEVIEW	CT		

Number Streets

Pay Attention to the correct spelling for street names that contain numbers

- Is It...
 - 10th Street or Tenth Street?
 - 1st Avenue or First Avenue?
- You May Have Both...
 - First Street and
 - 1st Street

Prefix	Street	Type
	10TH	ST
	11TH	ST
	12TH	ST
	1ST	AV
	1ST	ST
	2ND	AV
	2ND	ST
	3RD	ST
	4TH	ST
	5TH	ST
	7TH	ST
	8TH	ST
	9TH	ST

Duplicate Street Names & Zip Codes

- Sometimes there will be two or more streets with the same official street name scattered throughout the county.
- These are often very common street names like Main Street, Elm Street, Pine Street, etc. that are present in different cities around the county.
- If this is the case, TIMS will then reference the Student Zip Code to determine which “Pine Street” is correct.

Prefix	Street	Type	Suffix	Zone
	PILGRIM CHURCH	RD		
	PILOTS	LN		
	PIN OAK	LN		
	PINE	ST		28677
	PINE	ST		28115

- So make sure the Student Zip Code is correct too!

Apartment and Lot Numbers

- One of the most common Address Errors made by Data Managers across the entire state is the entry of Apartment and Lot Numbers into the wrong box on the student address screen
 - Do not include them in the Street field
 - There is a separate box in PowerSchool for entering Apartment and Lot Numbers

The diagram illustrates the 'Home Address' form in PowerSchool. On the left, a legend defines the fields: 'Street, Apt/Suite' and 'City, State, Zip'. On the right, the form layout is shown with a blue arrow pointing to a small, outlined box on the right side of the 'Street' input field, indicating where to enter apartment or lot numbers. Below the 'Street' field is a row of three boxes for 'City', 'State', and 'Zip'.

Apartment and Lot Numbers

Examples of Common Errors

- Lot #33 entered incorrectly in Street Field, Lot #33 should be moved to correct field

Home Address		
Street, Apt/Suite	2725 E Geer Street Lot #33	→
City, State, Zip	Durham	NC 27704

- Correct Address Entry is 27 Ridgeway Ave, with Apt A in correct field

Home Address		
Street, Apt/Suite	27A RIDGEWAY AVE	→
City, State, Zip	Durham	NC 27701

Apartment and Lot Numbers

Examples of Correct Data Entry for Apartment and Lot Numbers

Home Address			
Street, Apt/Suite	3408 Hursey St	Lot 92	
City, State, Zip	Durham	NC	27703

Home Address			
Street, Apt/Suite	3547 Mayfair	Apt 205	
City, State, Zip	Durham	NC	27707



Correcting Address Errors

As you can see, there are multiple ways for address errors to occur in PowerSchool.

Following a Student Upload into TIMS, your Transportation Department can create a list of students whose address does not match a valid address within the county.

Some of these may be errors in TIMS (County GIS Map needs updated) while most errors are typically data entry errors in PowerSchool.

These need to be reviewed and corrected to prevent errors during future imports and errors for future students.

Very important during Kindergarten Registration this time of year.





Correcting Address Errors

Some LEAs give TIMS Operators the appropriate permissions and credentials in PowerSchool to fix simple student address errors.

Other LEAs ask that TIMS Staff provide a list of address errors back to each data manager so they can correct the errors for students within their school.

If there are a number common mistakes and misspellings, it can be handy for Data Managers to make their own corrections. If someone has to change Maple Wood Road to Maplewood Road for twenty students, they will not make the same mistake for the next student on Maplewood Road.

Most of the time it takes just a bit of training and coaching from TIMS Staff to understand student address errors and how to prevent them from occurring.

Procedures vary by LEA so please work with the Transportation Department to determine the best approach for your district.





TIMS Data in PowerSchool



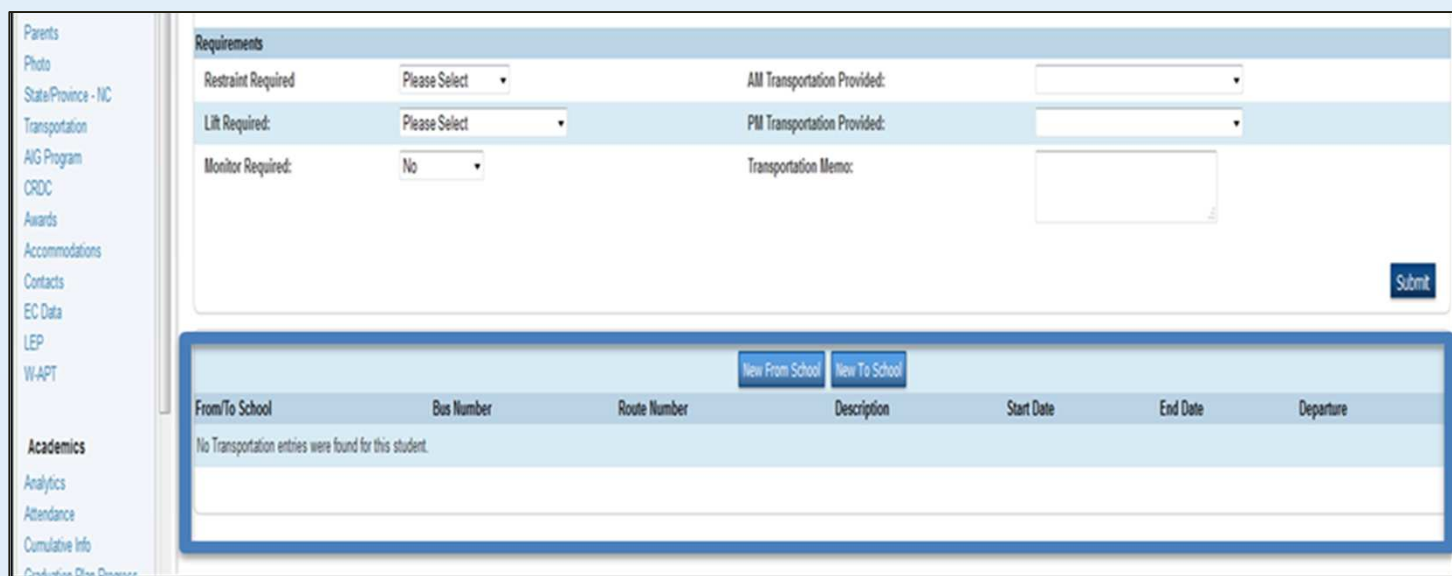
PowerSchool Transportation Data

TIMS Data in PowerSchool

- Importing TIMS Bus Stop Information into PowerSchool
 - Understanding the Data Available for Import
 - Purging Previously Uploaded TIMS Transportation Data
 - Importing Current TIMS Data into PowerSchool
- Use of this data by...
 - Schools and Central Office
 - Parent Portal Apps, School Bus GPS Alerts
 - Blackboard, All Call and other School Messenger Systems

PowerSchool Transportation Data

At the bottom of the Student Transportation Screen is a section where TIMS Bus Assignments can be Imported into PowerSchool



The screenshot shows the PowerSchool Student Transportation screen. On the left is a navigation menu with options: Parents, Photo, State/Province - NC, Transportation, AIG Program, CRDC, Awards, Accommodations, Contacts, EC Data, LEP, W-APT, Academics, Analytics, Attendance, Cumulative Info, and Graduation Plan Overview. The main content area is titled 'Requirements' and contains the following fields:

- Restraint Required: Please Select (dropdown)
- Lift Required: Please Select (dropdown)
- Monitor Required: No (dropdown)
- AM Transportation Provided: (dropdown)
- PM Transportation Provided: (dropdown)
- Transportation Memo: (text area)

A 'Submit' button is located at the bottom right of the Requirements section. Below this is a section for TIMS Bus Assignments, which includes two buttons: 'New From School' and 'New To School'. Below these buttons is a table with the following columns: From/To School, Bus Number, Route Number, Description, Start Date, End Date, and Departure. The table currently displays the message: 'No Transportation entries were found for this student.'

After completing the Data Import, Student Stop Assignments and Bus Numbers will be visible on the Student Transportation Screen.

From/To School	Bus Number	Route Number	Description	Start Date	End Date	Departure
To	88		HIDDENWOOD LN & NC 73 HWY	0/0/0	0/0/0	06:16 AM
From	46		HIDDENWOOD LN & NC 73 HWY	0/0/0	0/0/0	04:21 PM

From/To School	Bus Number	Route Number	Description	Start Date	End Date	Departure
To	111		SUGAR LN & BOYDEN RD	0/0/0	0/0/0	07:22 AM
From	111		SUGAR LN & BOYDEN RD	0/0/0	0/0/0	03:24 PM

Importing TIMS Bus Stop Information into the Student Transportation Screen

Transportation Staff are able to create a data extract from TIMS that contains the following pieces of information for import into PowerSchool.

- Student PowerSchool Number
- Student Trip Type: To and From School
- Student Stop Description or Stop Address
- Student Time at Stop: Pickup (AM) and Drop-Off (PM)
- Student Bus Number

A	B	C	D	E
Student_Number	FromTo	Description	DepartureTime	BusNumber
847631	To	348 BROWNING DR	7:12 AM	171
847631	From	MT BETHEL CHURCH	3:22 PM	189
1032901	To	HERITAGE CREEK DR & SONGBIRD LN	7:23 AM	195
1032901	From	HERITAGE CREEK DR & SONGBIRD LN	4:33 PM	195
1032919	To	CEMETERY LOOP RD & DOBERMAN LN	7:05 AM	189
1032919	From	CEMETERY LOOP RD & DOBERMAN LN	3:34 PM	189
1032945	To	EMERSON CT & WITTENBURG SPRINGS DR	7:17 AM	171
1032945	From	EMERSON CT & WITTENBURG SPRINGS DR	3:59 PM	171
1033817	To	MARINERS POINT LN & SHIPWATCH DR	6:58 AM	189
1033817	From	MARINERS POINT LN & SHIPWATCH DR	3:43 PM	189



TIMS Transportation Data in PowerSchool

- Trip Type: To or From School
- Stop Description or Stop Address
- Time at Stop: AM and PM
- Bus Number

Each of these pieces of information can be imported into PowerSchool and displayed on the student transportation screen for each assigned bus rider.

This allows Data Managers, Central Office Staff and Parents (via Parent Portal) to easily look up student bus assignments without having to contact the transportation department or speak to a bus driver.

TIMS Transportation data can also be exported from PowerSchool and used in conjunction with School Messenger Systems to notify parents of a bus delay, breakdown or accident.





TIMS Transportation Data in PowerSchool

There are around a dozen or so LEAs that regularly import TIMS Data back into PowerSchool for use by Schools, Administration, Parents and School Messenger Systems.

Some LEAs maintain great TIMS Data throughout the year and can be trusted to import correct and accurate information.

Other LEAs do not always keep TIMS updated as they should and you should be cautious about importing incorrect bus assignments into PowerSchool.

Please consult with your Transportation Department to determine if this will work in your LEA.





TIMS Transportation Data in PowerSchool

Please consult with your Transportation Department to determine if this will work in your LEA.

How often does the Transportation Department complete a PowerSchool Student Upload into TIMS?

Do they have the most current student addresses and student assignments in TIMS?

What is the typical turnover time from when a new stop is requested until the assignment is completed in TIMS?

Do Transportation Staff have administrative rights in PowerSchool?

These credentials will be needed to complete the Bus Stop Import.





TIMS Transportation Data in PowerSchool

Please consult with your Transportation Department to determine if this will work in your LEA.

Concerns with importing bad transportation data...

- A teacher or staff member could see outdated information and put the student on the wrong bus by mistake.
- A student has moved recently but TIMS still shows them at their old address and assigned to their old stop.
- Schools or Drivers have changed/deviated from the pre-planned routes in TIMS, never notified TIMS Staff of the changes and the imported stop locations and stop times are now incorrect.



TIMS Transportation Data in PowerSchool

As transportation data changes throughout the year (Bus Numbers, Stop Times, Stop Locations, Passenger Lists, etc.), there will be a need to update the information imported into PowerSchool.

For Daily/Weekly/Monthly changes in Routing, users must first ...

1) PURGE existing transportation data previously imported into PowerSchool

AND THEN

2) IMPORT the current student transportation information from the TIMS data file

TIMS Transportation Data in PowerSchool

Accessing the Transportation Data Purge Interface

1. From the PowerSchool Start Page, Go to “Special Functions” from the menu on the left.
2. From the Special Functions Page, scroll to the North Carolina Special Functions section at the bottom of the page and choose “Transportation Administration”

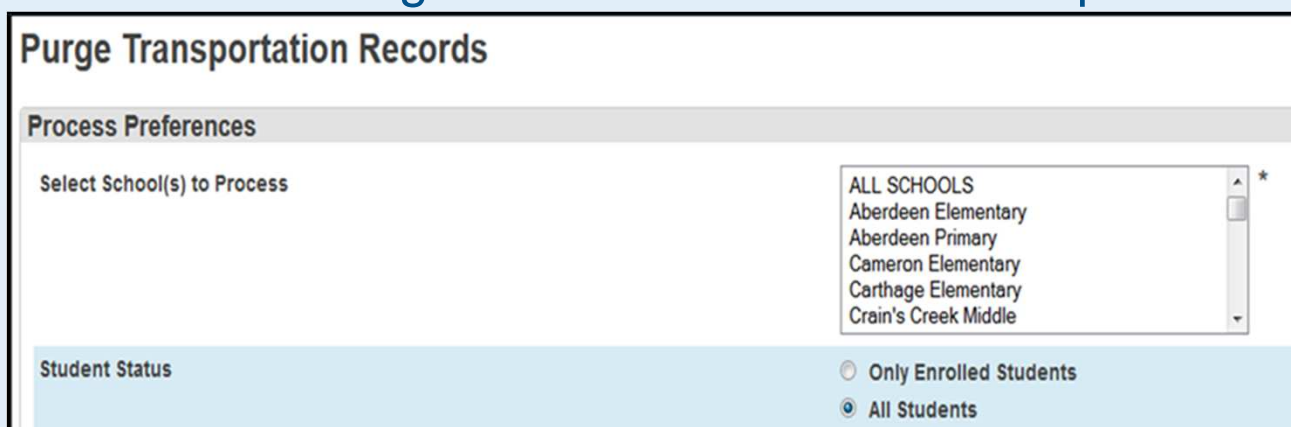


North Carolina Special Functions	
AIG Student Listing	Display a list of all students currently associated
Load PMR Defaults	Automatically create default PMR intervals (20) for
Athletic Eligibility	Perform Athletic Eligibility Administration Function
Medicine Administration	Perform Medicine Administration Functions
Migrant Administration	Perform Migrant Administration Functions
Teacher Certification	Perform Teacher Certification Administration Fun
Transportation Administration	Perform Transportation Administration Functions

TIMS Transportation Data in PowerSchool

The TIMS Bus Stop Extract is designed so Transportation Departments can extract data at the school level. The Import File from TIMS will contain information from All Schools, One School or Multiple Schools. Prior to importing updated transportation information, users should first purge the data from the school(s) contained within the updated import file.

Failing to Purge Transportation Data will result in multiple, often duplicated, transportation records being visible on the student transportation screen.



Purge Transportation Records

Process Preferences

Select School(s) to Process

- ALL SCHOOLS
- Aberdeen Elementary
- Aberdeen Primary
- Cameron Elementary
- Carthage Elementary
- Crain's Creek Middle

Student Status

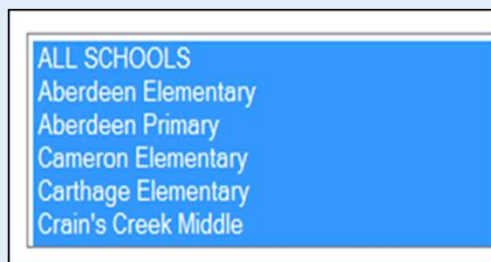
☐ Only Enrolled Students

☒ All Students

TIMS Transportation Data in PowerSchool

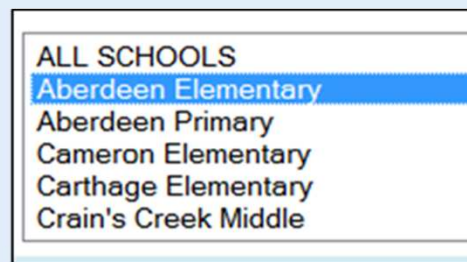
Users can select to Purge Transportation Data from ...

All Schools



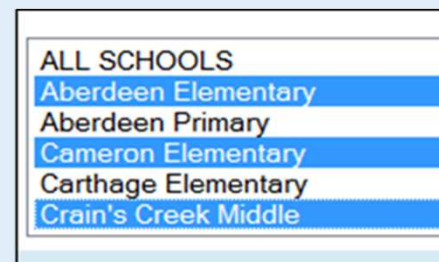
ALL SCHOOLS
Aberdeen Elementary
Aberdeen Primary
Cameron Elementary
Carthage Elementary
Crain's Creek Middle

One School



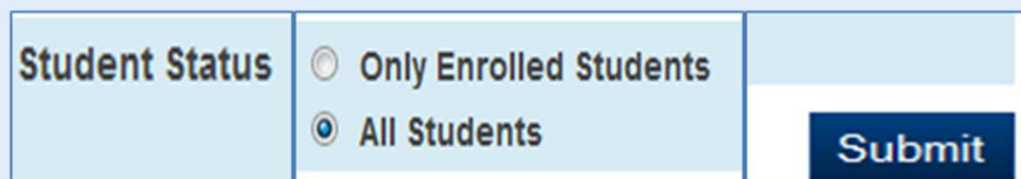
ALL SCHOOLS
Aberdeen Elementary
Aberdeen Primary
Cameron Elementary
Carthage Elementary
Crain's Creek Middle

Multiple Schools



ALL SCHOOLS
Aberdeen Elementary
Aberdeen Primary
Cameron Elementary
Carthage Elementary
Crain's Creek Middle

4. After choosing the School(s) you want to purge data from, leave the Student Status field defaulted to “All Students” and Click “Submit”



Student Status ☐ Only Enrolled Students ☒ All Students **Submit**

TIMS Transportation Data in PowerSchool

5. The system will then ask you to Confirm the number of Transportation Records you wish to Purge. If you believe this number is correct for the School(s) you selected, Click Continue to Proceed with Purging the Previously Uploaded TIMS Transportation Data.

Purge Transportation Records

Are you sure you want to purge **10** records?

Continue

6. You will then see a message notifying you of how many Transportation Records were Successfully Purged. Click Continue to Return to the Transportation Purge Interface.

Purge Transportation Records

✓ Successfully purged **10** transportation records!

Continue

7. Transportation Data Purge Complete.

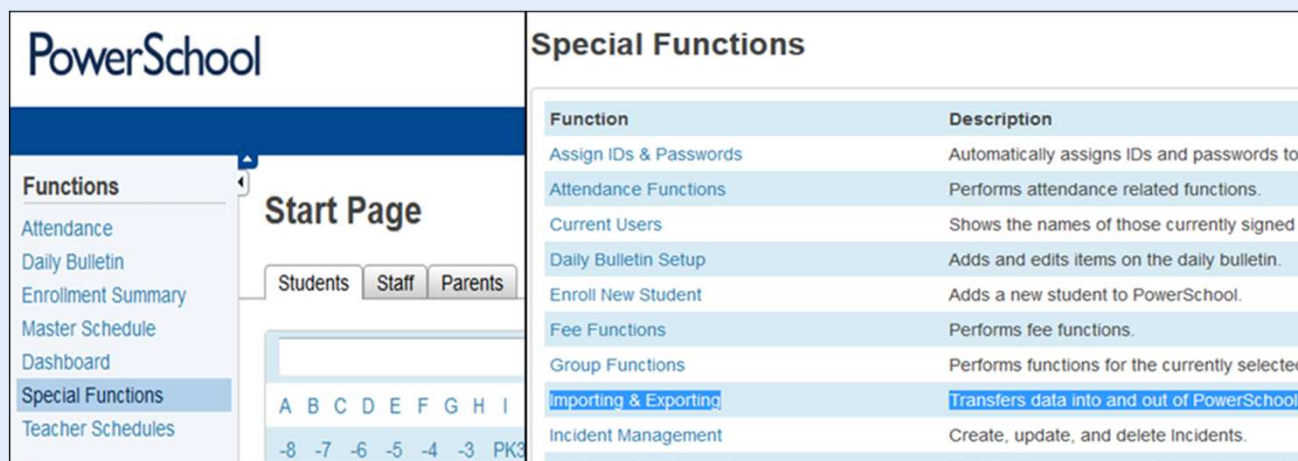
You may now Import the newest CSV File from TIMS.

TIMS Transportation Data in PowerSchool

After purging previously imported TIMS Data from PowerSchool, you are ready to Import the most current Transportation Data from TIMS.

Accessing the Data Import Manager Interface

1. From the PowerSchool Start Page, Go to “Special Functions” from the menu on the left.
2. In the top section of Special Functions, click on the link titled “Importing and Exporting”



The screenshot shows the PowerSchool interface. On the left, the 'Functions' menu is open, and 'Special Functions' is selected. The 'Start Page' is visible in the background. On the right, the 'Special Functions' table is displayed, with 'Importing & Exporting' highlighted in blue.

Function	Description
Assign IDs & Passwords	Automatically assigns IDs and passwords to s
Attendance Functions	Performs attendance related functions.
Current Users	Shows the names of those currently signed in
Daily Bulletin Setup	Adds and edits items on the daily bulletin.
Enroll New Student	Adds a new student to PowerSchool.
Fee Functions	Performs fee functions.
Group Functions	Performs functions for the currently selected
Importing & Exporting	Transfers data into and out of PowerSchool.
Incident Management	Create, update, and delete Incidents.

TIMS Transportation Data in PowerSchool

3. In the Importing Section at the top, click on the link titled “Data Import Manager”

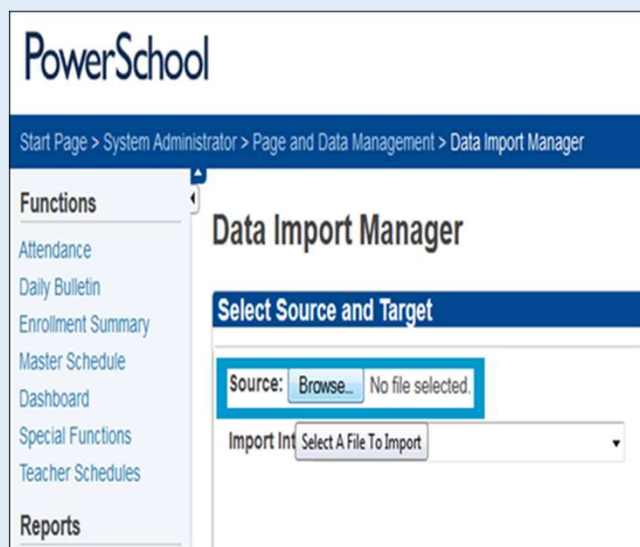
Importing & Exporting







Importing	
Quick Import	Import records from an ASCII text file. Quick Import supports import into: <ul style="list-style-type: none"> • Core tables, such as Students, Teachers, Sections, Courses, and m • State/Provincial virtual tables. • Schedule-related tables.
Quick Import for State-Specific Extended Tables	Import records from an ASCII text file.
Import Using Template	Import records from an ASCII text file using an import template for Studen
Templates for Importing	Configure import mapping templates for common imports into Student, St
Data Import Manager	Import manager with support for importing into: <ul style="list-style-type: none"> • Data sets, such as Student Email, Incidents, and Transportation. • Custom database tables. • Additional data sets to be added in future updates.

TIMS Transportation Data in PowerSchool

On the Data Import Manager Page, you will first need to choose the Source File for Import into PowerSchool.

4. Select Browse and locate the correct CSV File for Import

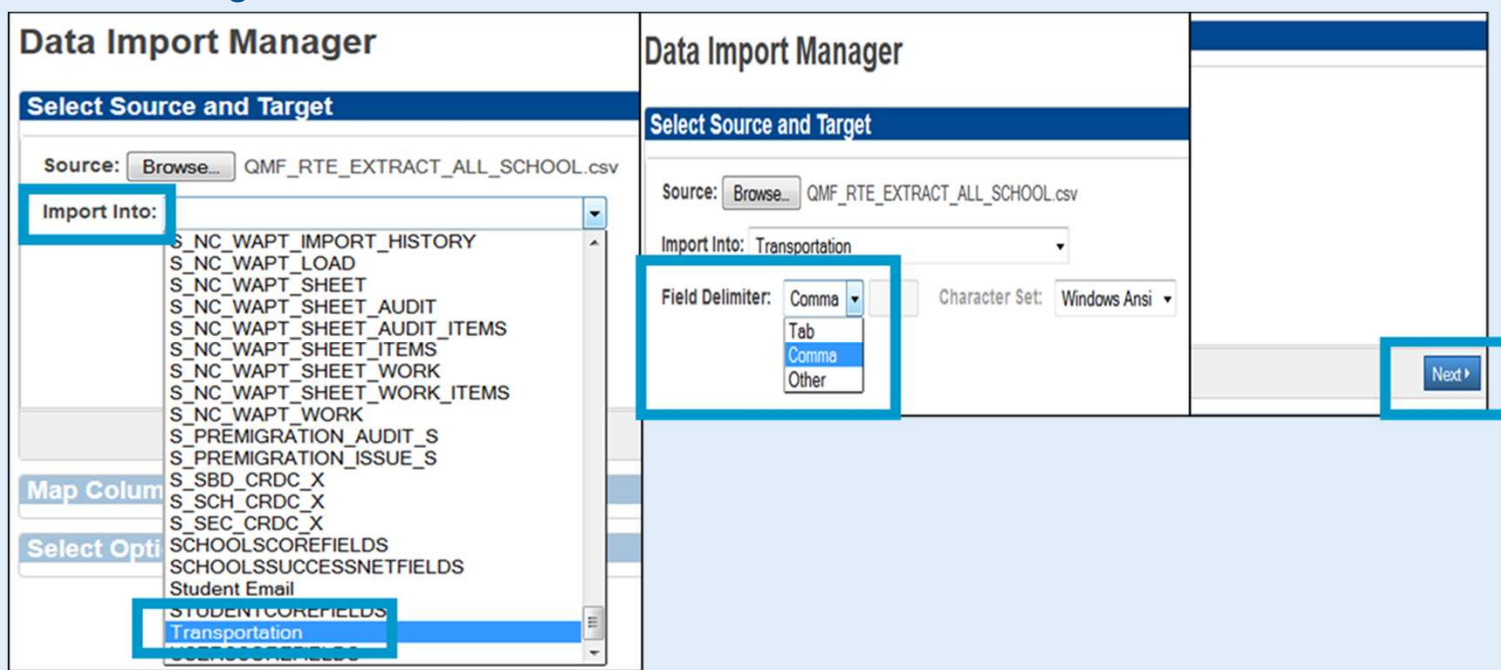



Name	Type
 qmf_304_306_308	Microsoft Excel 97-2003 Worksheet
 qmf_all_schools	Microsoft Excel Comma Separated Values File
 qmf_all_schools	Microsoft Excel 97-2003 Worksheet
 qmf_elem	Microsoft Excel 97-2003 Worksheet
 qmf_high	Microsoft Excel 97-2003 Worksheet
 qmf_middle	Microsoft Excel 97-2003 Worksheet

TIMS Transportation Data in PowerSchool

Next you will need to choose where in PowerSchool you want to Import this Data

5. Under “Import Into”, scroll all the way to the bottom and choose “Transportation”
6. Then change the “Field Delimiter” to “Comma” and Choose “Next”



Data Import Manager

Select Source and Target

Source: QMF_RTE_EXTRACT_ALL_SCHOOL.csv

Import Into: ▼

- S_NC_WAPT_IMPORT_HISTORY
- S_NC_WAPT_LOAD
- S_NC_WAPT_SHEET
- S_NC_WAPT_SHEET_AUDIT
- S_NC_WAPT_SHEET_AUDIT_ITEMS
- S_NC_WAPT_SHEET_ITEMS
- S_NC_WAPT_SHEET_WORK
- S_NC_WAPT_SHEET_WORK_ITEMS
- S_NC_WAPT_WORK
- S_PREMIGRATION_AUDIT_S
- S_PREMIGRATION_ISSUE_S
- S_SBD_CRDC_X
- S_SCH_CRDC_X
- S_SEC_CRDC_X
- SCHOOLSCOREFIELDS
- SCHOOLSSUCCESSNETFIELDS
- Student Email
- STUDENTCOREFIELDS
- Transportation
- SCHOOLSSUCCESSNETFIELDS

Map Column

Select Opti

Data Import Manager

Select Source and Target

Source: QMF_RTE_EXTRACT_ALL_SCHOOL.csv

Import Into: Transportation

Field Delimiter: Comma ▼

- Tab
- Comma
- Other

Character Set: Windows Ansi

Next ▶

TIMS Transportation Data in PowerSchool

Because the correct PowerSchool Field Names are within the CSV File, PowerSchool sees the field headers and correctly pairs TIMS Data with PowerSchool Data.

If all variable names under “Import File Column” and “PowerSchool Field” are paired correctly...

7. Click Next to Proceed

The screenshot displays a mapping interface for importing data. On the left, under the heading 'Import File Column', are the fields: Student_Number, FromTo, Description, DepartureTime, and BusNumber. On the right, under the heading 'PowerSchool Field', are dropdown menus for the same fields: Student_Number, FromTo, Description, DepartureTime, and BusNumber. Blue arrows point from each 'Import File Column' to its corresponding 'PowerSchool Field' dropdown, indicating a successful mapping. To the right of the dropdowns is a 'Next >' button, which is highlighted with a blue border.

TIMS Transportation Data in PowerSchool

On the next screen

8. Make sure “Check to Exclude First Row (contains headers)” is Checked
9. Then choose the bubble for “Update Existing Record”.
10. Once both selections are made, Click Import

Select Options

Check to exclude the first row (contains headers). ☒

If a record in the import file matches an existing record in the database, how would you like that record processed?

☐ Do not process record

☒ Update existing record

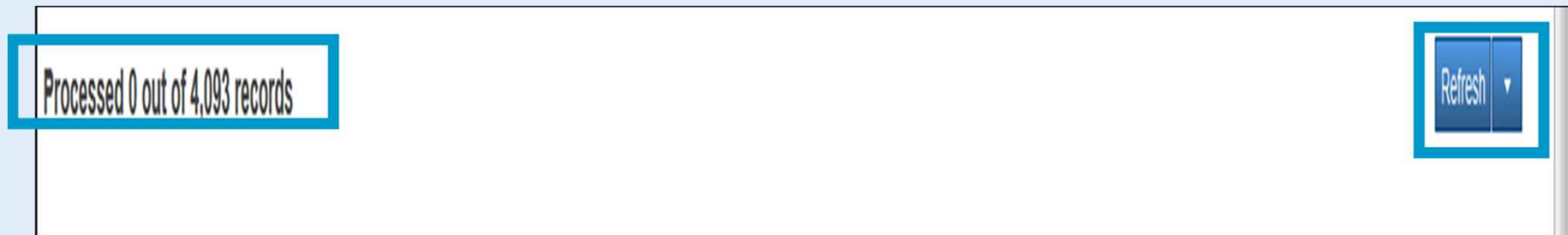
Import ►

TIMS Transportation Data in PowerSchool

Depending on the Size of your LEA and the Number of Records you are trying to Import, the next step will take varying amounts of time.

The top of this screen displays the number of processed records (0 of #)

- You can click the “Refresh” button in the upper right of the page and the page will refresh to show you how many records have been processed and how many remain.
- For those who may be worried the import is not working, feel free to click Refresh along the way.





TIMS Transportation Data in PowerSchool

After the system attempts to process all records in the CSV file, you will be notified of how many were correctly processed and how many records failed to process.

If a record failed to process, PowerSchool will provide information as to which records failed as well as the reason why they failed to import.

Failed records could occur for several reasons, such as Incorrect PowerSchool ID: not finding a match or perhaps the Student is No Longer Enrolled in the LEA but is still in TIMS.

Transportation Offices should be regularly performing a Student Upload as this will help remove any students who have transferred out of the LEA and will prevent errors during the Import of TIMS Data into PowerSchool.

Other errors could occur if the CSV file was not edited correctly prior to import.



TIMS Transportation Data in PowerSchool

After the successful import of TIMS Data, Ridership Information is now visible on the Student Transportation Screen.

DEMO TIMS BUS STOP IMPORT

From/To School	Bus Number	Route Number	Description	Start Date	End Date	Departure
To	88		HIDDENWOOD LN & NC 73 HWY	0/0/0	0/0/0	06:16 AM
From	46		HIDDENWOOD LN & NC 73 HWY	0/0/0	0/0/0	04:21 PM
From/To School	Bus Number	Route Number	Description	Start Date	End Date	Departure
To	111		SUGAR LN & BOYDEN RD	0/0/0	0/0/0	07:22 AM
From	111		SUGAR LN & BOYDEN RD	0/0/0	0/0/0	03:24 PM



TIMS Transportation Data in PowerSchool

Summary of Steps for Purging TIMS Data from PowerSchool

1. Choose Special Functions from the PowerSchool Start Page
2. Choose Transportation Administration from North Carolina Special Functions Section
3. Select the School(s) to Purge Transportation Data From
4. Confirm the Purging of Transportation Records

Summary of Steps for Importing TIMS Data into PowerSchool

1. Choose Special Functions from the PowerSchool Start Page
2. Choose Importing & Exporting from the Functions Section
3. Choose Data Import Manager from the Importing Section
4. Choose the Source File (Newly Edited CSV) to Import
5. Choose Transportation under the "Import Into" Dropdown Menu
6. Choose "Comma" as the Field Delimiter
7. Double Check the Field Names from the Import File Match those in PowerSchool
8. Make sure "Check to exclude first row (contains headers)" is selected
9. Make sure "Update Existing Record" is selected
10. Refresh the Import Results page as needed until Import is Completed





TIMS Transportation Data in PowerSchool

Advantages of Implementing the TIMS Transportation Data Import for PowerSchool

1. School Data Managers, Principals, and other Administrators will be able to view Student Transportation Information in PowerSchool (Bus Numbers, Stop Locations, Stop Times).
2. Parents can also access this information via the Parent Portal (if enabled in your LEA) as well as various School Bus GPS Alert Systems.
3. Fewer calls to the Transportation Department about basic Student Bus Stop Information
4. PowerSchool Coordinators and School Data Managers can generate lists of assigned students from PowerSchool by Bus Number, Stop Location, School, Grade, etc.
5. Student Lists from PowerSchool can be used in conjunction with School Messenger Systems to notify parents in the event of a bus delay, breakdown or accident.

WARNING: Consult with your Transportation Department about the accuracy of TIMS Data throughout the school year. You do not want to import incorrect and outdated Bus Stop Information as a student could be placed on the wrong bus. Not every LEA manages TIMS the same way.





Helping TIMS Staff Prepare for the Start of School and Summer Bus Routing



TIMS & PowerSchool

Session Outline (cont.) :

- Helping TIMS Staff Prepare for August Bus Routes
 - TIMS and Student Pre-Transition Data
- Helping TIMS Staff Prepare for Summer School
 - Program Locations and Final Enrollment
 - Summer Student Spreadsheet for TIMS
 - New Tool to Help TIMS Staff with Summer School Routing
 - Proper Time to Plan and Prepare Summer Bus Routes



Kindergarten Registration and Student Pre-Transition Data

Kindergarten Registration has already begun across the state. Once all of the registration and enrollment documents have been completed, School Data Managers can begin entering incoming Kindergarten Students into PowerSchool as Pre-Registered Students.

This should be done as soon as possible so that Transportation can begin importing these students and managing bus stop requests for August.

Pay close attention to the Enrollment Date entered for each student. This date needs to be during the upcoming school calendar and it is best to use the first day of school in August.

If the date entered is August 10th and the school start date is August 25th, then PowerSchool will not see this child as a current student.





Kindergarten Registration and Student Pre-Transition Data

Many LEAs have already begun entering Pre-Transition Data (Next School, Next Grade) for current students within their county.

It is important this information be entered as soon as possible so that Transportation Staff can use the Pre-Transition Data for early promotion in TIMS and begin working on August Bus Routes as soon as possible.

While we do understand some students will fail their current grade or receive an exception for out of boundary enrollment next year, the vast majority of your students will likely be promoted to their next grade.

Once final grades and EOG Scores are received, School Data Managers would only need to go back and correct the students who did not pass or those who received an enrollment exception.





Kindergarten Registration and Student Pre-Transition Data

It is important to have both Pre-Registered Kindergarten Students and Pre-Transition Data into PowerSchool as soon as possible.

TIMS staff will need time to review stop requests for each school, create new stops as needed and will often redesign bus routes based on the most current student population.

Depending on the size of your LEA (from 10 Buses to 1,100 Buses), it is very important to have this information sooner rather than later.

For LEA PowerSchool Coordinators, I suggest you review and reconsider your current deadlines for entering Pre-Registered Kindergarten Students and Pre-Transition Data into PowerSchool.





Kindergarten Registration and Student Pre-Transition Data

Practices to Avoid:

- Do not give Data Managers a deadline of June 30th to enter this information.
 - It is recommended to have Pre-Transition Data entered by April at the latest so that Transportation Departments can begin pre-planning as early as possible.
- Do not let Kindergarten Registration packets sit in a box or on a desk for weeks or months.
 - This information should be entered within a week of registration at each school.
- Do not wait until after Year End Transition (YET) in July to complete entry of incoming Kindergarten Students.





Kindergarten Registration and Student Pre-Transition Data

Summertime registration and enrollment for new students.

What if a new student (KI or any grade) registers over the summer...

- How long before the new student is entered into PowerSchool?
 - Some LEAs have one Data Manager come in once per week to enter any new student info.
 - Other LEAs will not enter this information until Data Managers return in August.
 - This is a bad data management practice as TIMS will not have these students until they are entered into PowerSchool with a valid Enrollment Date.
- Please think through the best procedures for your LEA to enter this information into PowerSchool as soon as possible.





Getting a Grip on Summer School

Issues to consider when preparing for Summer School

While the final enrollment for Summer School will not be determined until EOG Scores are received, PowerSchool Coordinators and School Data Managers, based on current grades and performance, should be able to anticipate 80-90% of the students who will need to attend summer school.

Most LEAs struggle to coordinate Summer School Enrollment and Summer School Ridership needs.

In addition to changing ridership statuses over the summer, most Summer Programs are not held in the Home School for each student, creating different transportation needs To/From Summer School locations.





Getting a Grip on Summer School

Issues to consider when preparing for Summer School

Since every school will not have their own Summer Program, it takes much more time to develop Summer School Bus Routes across a much larger area than the normal school year. Also, the location of students over the summer can be different than the normal school year..

- How does your LEA determine the Ridership needs for Summer Students?
 - Do you assume all summer students will ride the bus to summer school?
 - Do you assume they will always be going to/from their home address?
 - Any students going To/From grandmother's house or a daycare?

Summer School students should complete a transportation request form so that TIMS Staff can build Routes based on the best data possible.





Getting a Grip on Summer School

Issues to consider when preparing for Summer School

When does each Summer Program start?

- If school ends on a Wednesday and you give TIMS Staff a list of 500 Summer School Students on Thursday... it is unrealistic (and impossible) to expect fully updated Bus Routes the following Monday.

Depending on the Size of your LEA and the location of each Summer Program, TIMS Staff will need at least a week, if not two, to appropriately plan Summer School Bus Routes based on a list of valid student transportation requests.

- Please consult with your Transportation Department about expected Summer School dates and how best to gather/communicate the ridership needs for summer students.





Getting a Grip on Summer School

Issues to consider when preparing for Summer School

Summer School Program Locations:

Who decides which school buildings will be used for Summer School?

Who decides which schools will send their Summer Students to this program location or this specific building?

Do you hold Summer School at a location that is centralized for these students and/or more convenient for transportation as a whole?

Who decides the Begin Dates and End Dates for each Summer Program?

Please coordinate with TIMS so they have time to prepare bus routes.





Getting a Grip on Summer School

NEW TOOL for 2019 Summer School

The PowerSchool Upload into TIMS during the normal school year brings in the regular school code and grade for each student. Due to different summer programs being held in different locations, the normal TIMS Download does not indicate Summer School Building Assignments and TIMS Staff have had difficulty historically managing summer school assignments.

This year, Summer School Coordinators can help transportation by providing TIMS Staff with an Excel Spreadsheet of Summer School Students and their Assignments.

TIMS Project Leaders at NC State University developed an Access Database that will allow LEA Transportation Staff to instantly reassign students in TIMS to their correct summer school building as well as import Summer School Transportation Requests.

Let's Look at How You Can Help TIMS Staff With Summer School Bus Routes.



New for 2019: School Replacement Database

The TIMS Extract from PowerSchool (newstu.txt) contains the Student ID, the regular School Code for the Student and, if being used, the Y's and N's for AM and PM Ridership as entered on the Student Transportation Page of PowerSchool.

newstu.txt			
Student ID	School Code	AM	PM
0823667452	910308000	Y	Y
01985188	910360000	N	N
01985190	910380000		
012544209	910314000	Y	Y
012462465	910360000	Y	Y
012446524	910314000	Y	Y
012460444	910360000	Y	Y

However, the Summer School Code is often different from a student's regular school assignment and Summer Transportation Needs can also be different compared to the ridership during the year.

Making manual edits in TIMS can take a lot of time.



New for 2019: School Replacement Database

Using Microsoft Access, TIMS Staff will be able to update and replace the Student School Code within the TIMS Extract from PowerSchool (newstu.txt) with the School Code of the building where the Student is assigned for Summer School.

In order for this process to work, TIMS Staff will need ...

- 1) A current TIMS Extract from PowerSchool
- 2) An Excel Spreadsheet of Summer School Students

Below is the information needed in the Summer School Spreadsheet

- Column A: Student PowerSchool ID (required)
- Column B: Summer School Code (required)
- Column C: AM Rider (optional)
- Column D: PM Rider (optional)

Lets take a closer look at the Summer School Spreadsheet.





New for 2019: School Replacement Database

Student Summer School Spreadsheet

Columns A (PSID) and B (SCH) are required for the Database to function properly.

Columns C (AM) and D (PM) are optional and relate to Ridership Status for Summer School and can also be imported into TIMS for each student.

If AM and PM Ridership Codes are collected, then TIMS Staff can quickly identify and easily display the students who have requested a bus ride to or from Summer School.

This will help produce a much quicker turnover time when developing Summer School Routes. In the end, we are only as good as our sloppy data.

	A	B	C	D
1	PSID	SCH	AM	PM
2	1941227	800	Y	N
3	1959789	800	N	Y
4	1961196	800	N	N
5	1967974	800	Y	Y
6	1967976	800	Y	N
7	1968367	800	Y	N
8	1968659	700	N	Y
9	1977178	700	N	Y
10	1977188	700	N	Y



New for 2019: School Replacement Database

The TIMS Extract from PowerSchool (newstu.txt) regularly contains the Student ID, the regular School Code for the Student and, if being used, the Y's and N's for AM and PM Ridership as entered on the Student Transportation Page of PowerSchool.

newstu.txt x	
0823667452	910308000
01985188	910360000
01985190	910380000
012544209	910314000
012462465	910360000
012446524	910314000
012460444	910360000

Student ID

School Code

Y	Y
N	N
Y	Y
Y	Y
Y	Y
Y	Y
Y	Y

AM

PM

	A	B	C	D
1	PSID	SCH	AM	PM
2	1941227	800	Y	N
3	1959789	800	N	Y
4	1961196	800	N	N
5	1967974	800	Y	Y

The School Replacement Database will read the information for each student in the Summer School Spreadsheet and update\replace their regular School Code and regular AM\PM Ridership Codes within the TIMS Extract and produce an updated newstu.txt file

Staff then use this updated NewStu File during UPSTU into TIMS



Proper Time to Prepare for Summer School

Most LEAs want cheap, efficient Bus Routes over the summer... which means the least amount of buses possible while not creating unreasonably long ride times or extremely early AM pickup times. Summer Routes will typically have to be experimented with and redesigned a few times before settling on the final routes for each program.

TIMS Staff are often asked to “try it with 6 buses” and when the times are too early, “try it with 7 buses” ... and then ... “how about 8 buses?”

It can be a lot of work to design and redesign bus routes under these constraints.

It is important that TIMS Staff have several weeks to appropriately plan for efficient Summer School Routes.



Proper Time to Prepare for Summer School

When does Summer School Begin?

If school ends on Thursday June 6th, it is unrealistic for Summer to begin that following Monday June 10th... unless the summer school rider info has been available to TIMS Staff for several weeks.

Please speak to your Summer Coordinator about the number of summer programs this year and the start date for each. Explain the importance of having accurate summer transportation requests several weeks in advance so TIMS Staff have time to plan routes accordingly.

Once Routes are created in TIMS, students and parents will need to be notified about their expected stop time and bus number for summer school.

Bus Drivers will also need an opportunity to review (and maybe practice) the routes prior to the first day of summer school.





RECAP: Summer School Preparation

Start thinking about Summer School programs now...

- Which students will attend each program?
- Which of these students will need transportation?
- What are their AM and PM Transportation Needs?
- What can Transportation do to help gather Summer Ridership Info?
- What can the Schools do to help gather Summer Ridership Info?
- When will Transportation have the final list of riders?

SUMMER SCHOOL STUDENT SPREADSHEET

- It takes time to complete all of these steps.
START EARLY!

**PLEASE CONSULT WITH YOUR LEA TRANSPORTATION DEPARTMENT
AND TMS STAFF TO COORDINATE THE SPECIFICS OF YOUR DISTRICT**





INNOVATIVE PATHWAYS TO
Personalized Learning

SESSION RECAP

TIMS & PowerSchool: Understanding Interactions Between The Two Systems

TIMS & PwerSchool

Session Outline:

- What is TIMS?
- How is PowerSchool Data used in TIMS?
- Understanding Student Address Errors
 - Correcting Address Errors
 - Preventing Address Errors

TIMS & PowerSchool

Session Outline (cont.) :

- The Student Transportation Page
 - Options for managing AM/PM Stop Requests
 - Options for identifying students with a special transportation need
- Importing accurate TIMS Bus Stop Data into PowerSchool

TIMS & PowerSchool

Session Outline (cont.) :

- Helping TIMS Staff Prepare for August Bus Routes
 - TIMS and Student Pre-Transition Data
- Helping TIMS Staff Prepare for Summer School
 - Program Locations and Final Enrollment
 - Summer Student Spreadsheet for TIMS
 - New Tool to Help TIMS Staff with Summer School Routing
 - Proper Time to Plan and Prepare Summer Bus Routes



Any Questions?

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Phone: 919-515-7989

ITRE Website: <http://itre.ncsu.edu/>

TIMS Website: <http://ncbussafety.org/TIMS/index.html>

Any Questions?

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