

# TDTIMS for Transportation Directors

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What is TDTIMS & Why Do We Do It?

Tips and Tricks  
for  
Preventing Errors on the  
TD2 and TD2-R

# TDTIMS

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- TDTIMS is an Annual Audit (or comparison) of your “computerized” Bus Routes to the “real world” Bus Routes within your district.
- There are 4 Specific Measures used to compare:
  - 1) Daily Number of Buses
  - 2) Daily Number of Bus Riders
  - 3) Daily Bus Miles
  - 4) Daily Driver Hours
- Each of these computerized measures must meet at least 90% of the official numbers reported to NCDPI.

Ideally, Number of Buses should be 100%, while Daily Miles and Driver Hours should be very close to 100%, and Student Counts should always be over in TIMS.

# TDTIMS

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- Your computerized Bus Routes should be a nearly perfect representation of what your buses are doing throughout a typical school day.

This includes...

- The location of where buses park during school hours and where they park overnight.
- The location of each bus stop, in the correct order, from beginning to end
- The approximate time at each stop (give or take a few minutes)
- Each stop also needs the correct students assigned so that Passenger Lists are accurate and can be relied upon by your district

# TDTIMS:

## Importance of Accurate Data

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- The information you submit in the Annual TDTIMS Report is used to determine your LEAs Efficiency Rating.
- The Efficiency Rating examines your Transportation Operations as a whole and uses the results to allocate the amount of funding you will receive the following school year.
- If your computerized TIMS Routes do not accurately reflect what your buses are doing, then your Efficiency Rating will be incorrect and may lead to decreased funding for next year.

# TDTIMS:

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## Importance of Accurate Data

- Having precise Student Assignment at each Bus Stop is very important.
- One of the key figures used in allocating your annual funding is the Student to School Distance for Bus Riders
  - The closer students live to school, the lower cost per rider
  - The farther students live from school, the more expensive cost per rider
- So it is important to have the correct students assigned to each stop and each stop on the correct bus route.
- Make sure your TIMS is accurate and...
- GET CREDIT FOR THE HARD WORK YOU DO

# TDTIMS Overview

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The Annual TDTIMS Audit compares your computerized bus routing data, in TIMS, to the data submitted to NCDPI as part of TD2 and TD2-R

The TD2 and TD2-R Deadline is  
**October 15<sup>th</sup>, 2019**

Lets look at the TD2 and TD2-R Reports

# TD2 Report

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## TD2

# Student Headcounts

# TD2 Report

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The annual TD2 Report, sometimes known as the Student Counts Report, is a total of your daily bus riders as collected during the last week of September.

We compare your Total Daily Riders from the TD2 to your Assigned Riders in TIMS



# TD2 Report

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Be Sure to Review the Student Count Data turned in by  
Schools and Drivers.

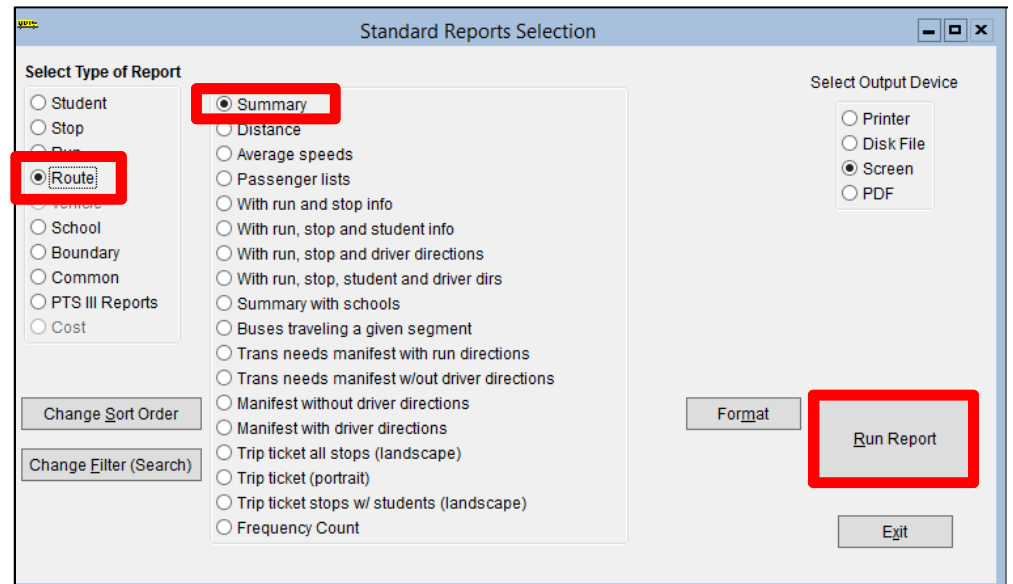
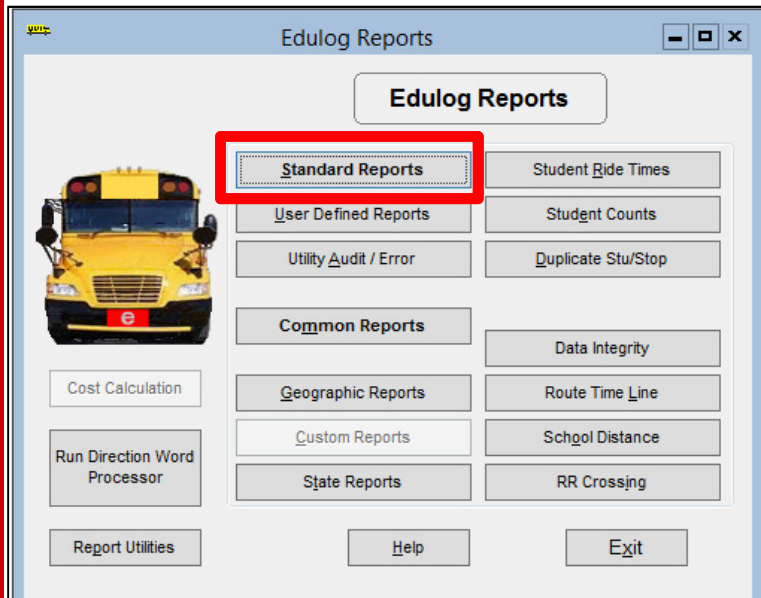
Look for possible errors....

## Example Issues and Errors to research and correct

1. Why does Bus 210 show 92 Students?
2. Why does Bus 303 only report 8 Riders?
3. Why did ITRE Elementary only report 180 Total Riders when they have 7 Buses in their fleet?

# TD2 Report

There is a Standard TIMS Reports (Route Summary) that will quickly tell you how many students are assigned to each AM and PM Load.



# TD2 Report

Standard TIMS Report (Route Summary) quickly tells you how many students are assigned to each AM and PM Load.

Route ID: 003		Vehicle Name: 003		Vehicle Capacity: 0				
Route Description: 003 WAMS		Days: MTWUF--						
Run ID	Slack	Run Time	To/From	Assigned Count	Head Count	Max Load	No. Stops	Max Time
Begin Time	End Time	Run Description						
<b>Morning Runs</b>								
330.004	0	98	To	25	0	60	22	1200
05:52 AM	07:30 AM	003 AM						
<b>Afternoon Runs</b>								
330.104	0	110	From	40	0	60	31	1200
03:20 PM	05:10 PM	003 PM						

For Bus 003, TIMS shows 25 Students are assigned in the AM and 40 are assigned in the PM.

Since the TD2 takes the highest of the AM\PM Ridership Totals, Bus 003 should have reported no more than 40 students. If Bus 003 shows more than 40 students on the TD2 Counts, TIMS Staff should ask for an updated Passenger List and assign each student missing from the TIMS Route.

Hint: Student Assignments in TIMS should always be equal to or more than daily headcounts.

# TD2 Report

Standard TIMS Report (Route Summary) quickly tells you how many students are assigned to each AM and PM Load.

Route ID:	003	Vehicle Name:	003	Vehicle Capacity:	0			
Route Description:	003 WAMS			Days:	MTWUF--			
Run ID	Slack	Run Time	To/From	Assigned Count	Head Count	Max Load	No. Stops	Max Time
Begin Time	End Time	Run Description						
<b>Morning Runs</b>								
330.004	0	98	To	25	0	60	22	1200
05:52 AM	07:30 AM	003 AM						
<b>Afternoon Runs</b>								
330.104	0	110	From	40	0	60	31	1200
03:20 PM	05:10 PM	003 PM						

For Bus 003, TIMS shows 25 Students are assigned in the AM and 40 are assigned in the PM.

Since the TD2 takes the highest of the AM\PM Ridership Totals, Bus 003 should have reported no more than 40 students.

The TD2 Counts are typically lower, but the question is... “How Much Lower”?

If only 5 students short compared to TIMS, this suggests students were out sick or absent for another reason. It is perfectly fine if TIMS is a few students over the TD2 Counts.

# TD2 Report

The TD2 contains different Worksheets for Schools or Groups of Schools. Each worksheet lists the Bus Number and Average Daily Ridership for K-12 Students.

You will see the total K-12 Bus Riders at the bottom of each worksheet.

Don't blindly accept these as correct... think about if they seem correct and follow up with Schools and Drivers regarding any questionable counts.

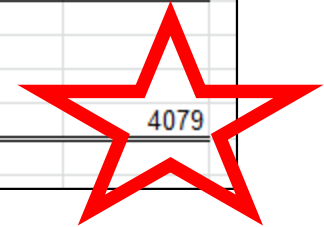
REGULAR RUNS						EC RUNS		
BUS #	K-12 FIVE DAY AVG	PRE-K FIVE DAY AVG	BUS #	K-12 FIVE DAY AVG	PRE-K FIVE DAY AVG	BUS #	K-12 FIVE DAY AVG	PRE-K FIVE DAY AVG
201	58		474	45				
213	58		497	37				
215	66		603	75				
228	29		613	30				
418	64		619	36				
419	64		628	45				
421	28		631	34				
422	37		632	42				
424	38							
432	50							
465	38							
473	34							
<b>TOTALS</b>	<b>564</b>	<b>0</b>	<b>TOTALS</b>	<b>344</b>	<b>0</b>	<b>TOTALS</b>	<b>0</b>	<b>0</b>
NON-MIRRORED RUN FIVE DAY AVG FROM TD2-NM			NON-MIRRORED RUN PRE-K FIVE DAY AVG FROM TD2-NM			NON-MIRRORED EC FIVE DAY AVG FROM TD2-EC NM		
<b>USE COLUMN TOTALS ABOVE TO COMPLETE LINES BELOW</b>								
<b>A. HOME TO SCHOOL RUNS</b>								
Total number of K-12 students transported on regular buses (sum K-12 run totals and Non-Mirrored run total)							<b>908</b>	

# TD2 Report

The Unit Summary Page of the TD2 totals the Bus Counts from each Worksheet and produces the main Student Variable we compare to TIMS

## Grand Total – Number of Students Transported

A. REGULAR BUS RUNS (HOME TO SCHOOL)			
1.	TOTAL NUMBER OF STUDENTS TRANSPORTED ON REGULAR BUSES		3959
2.	How many of these are Pre-K Students?	6	
3.	TOTAL NUMBER OF STUDENTS TRANSPORTED ON EXC. CHILD. BUSES		123
4.	How many of these are Pre-K Students?	24	
5.	GRAND TOTAL - NUMBER OF STUDENTS TRANSPORTED (1 + 3)		4079



## TD2 Report

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There is a TIMS Report called Count of Valid Riders (under User Defined > Bus Passes) that will tally the total number of K-12 Students Assigned in TIMS.

The total from the TIMS Report must be at least 90% of the total from the TD2.

If your LEA maintains good TIMS Data, TIMS Assignments should always be equal to or slightly higher than Daily Ridership Counts.

# TD2 Report

There is a TIMS Report called Count of Valid Riders (under User Defined > Bus Passes) that will tally the total number of K-12 Students Assigned in TIMS.

After selecting the report  
*Workbook: Count of Valid Riders*

Be sure the reports is set to Screen (lower left)  
And Choose Run Report

The Count of Valid Riders total should be similar or slightly more than the total riders from the TD2.



## TD2-R

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# TD2-R

1. Buses in Daily Operation
2. Daily Miles Travelled
3. Daily Driver Hours Paid

## TD2-R

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The annual TD2-R Report lists each Yellow Bus operated on a daily basis for K-12 To\From School Transportation, the Daily Miles (Odometer or GPS) for each bus as well as the daily Route Hours paid to each driver.

We compare your Total Number of Daily Buses, Miles and Driver Hours from the TD2-R to your Total Buses, Miles and Hours in TIMS.

# TD2-R

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Be Sure to Review the School Bus Data  
entered into the TD2-R

Look for your own errors....

## Example Issues and Errors to research and correct

1. Why does bus driver Bob Smith show 7.5hrs per day when he should drive no more than 3.5 hours?
2. Did Payroll accidently include Bob's extra 4 hours each day for working in the Cafeteria and as a Teacher Assistant?
3. Why does Sally's Bus show 110 Miles per day when she should not have more than 80?
4. Was there an error with Synovia Data Calculations or Payroll Hours?
5. Perhaps TIMS is incorrect, outdated or not fully completed yet
6. Maybe the School or Driver never turned in Updated Route Sheets or they are doing the Route a different way than planned by TIMS Staff

**There are multiple ways for errors and incorrect data to be reported on the TD2-R, so pay close attention to the details.**

# Total Miles

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- In addition to student ridership data, TDTIMS calculates total bus miles traveled by your computerized bus routes.
- These figures can be extremely accurate when TIMS data matches your Bus Routes.
  - Correct Bus Parking Locations
  - Correct Stop Locations and Stop Order
  - Correct Street Path of Travel
  - Correct Bus Turnarounds
- Please ensure drivers are following your TIMS Driving Directions or that your TIMS Routes match what the schools and drivers report they are doing.
- TIMS requires good accurate information to get the most out of the system...

# Driver Hours

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- In addition to student and mileage data, TDTIMS calculates total driver hours estimated by your computerized bus routes.
- This is often the most common measure LEAs have trouble meeting 90% of their official numbers reported to NCDPI
  - Bell Times errors and especially the Early/Late Transportation Windows in TIMS can impact this calculation.
  - Correct Road Speeds and other Map Calibrations will also increase/decrease the accuracy of your driving time estimates.
  - Also, the way drivers are paid (timesheets, time clocks, GPS) may cause differences between TIMS estimates and reported payroll hours.
  - The amount of Non-Driving Time (Pre\Post Trip Inspection, Cleanup and sitting outside the school in the PM) paid to each driver also varies by LEA.
- These figures can be extremely precise if TIMS is used correctly and drivers are paid accurately.

# TD2-R

The Detail Page of the TD2-R contains the data we compare to TIMS

1	2	3	4	5	6	7	8
BUS NO.	SCH. NO.	DRIVER NAME	EMP. ST	RUR/ URB.	INTRA CITY	RT. MI. DAILY	ROUTE HOURS
240	-----	# Lines Entered	xxxxxxx	xxxxxxx	xxxxxxx	20013.6	1207.1
31	324		FS	xxxxxxx		34.05	2.6
	326		FS	xxxxxxx		31.83	2.9
37	412		FP	xxxxxxx		154.96	8.2
40	412		FP	xxxxxxx		116.46	5.0
62	336		FP	xxxxxxx		89.95	4.4
68	412		FP	xxxxxxx		52.53	2.9
	330		FS	xxxxxxx		49.4	2.4
84	336		FS	xxxxxxx		43.88	2.5
	324		FS	xxxxxxx		36.69	2.8
93	326		FS	xxxxxxx		23.69	2.4
	326		FS	xxxxxxx		25.77	3.1
97	373		FS	xxxxxxx		37.69	2.6
	373		FS	xxxxxxx		32.76	2.8
100	412		FP	xxxxxxx		82.56	6.9

Instructions
TD-2R-DETAIL
TD-2R-EC
SUMMARY
LEAVE RATES
+ ◀ ▶

Each Bus in Daily Operation will be listed in Column 1, along with the typical Daily Miles for the Route (Column 7) and typical Daily Payroll Hours for each Driver (Column 8)

# TD2-R

The Detail Page of the TD2-R contains the data we compare to TIMS

1	2	3	4	5	6	7	8
BUS NO.	SCH. NO.	DRIVER NAME	EMP. ST	RUR/ URB.	INTRA CITY	RT. MI. DAILY	ROUTE HOURS
240	<-----	# Lines Entered	xxxxxxxx	xxxxxxxx	xxxxxxxx	20013.6	1207.1
31	324		FS	xxxxxxxx		34.05	2.6
	326		FS	xxxxxxxx		31.83	2.9
97	412		FP	xxxxxxxx		154.98	8.2
40	412		FP	xxxxxxxx		116.46	5.0
82	330		FP	xxxxxxxx		89.95	4.4
68	412		FP	xxxxxxxx		52.53	2.9
	330		FS	xxxxxxxx		49.4	2.4
84	336		FS	xxxxxxxx		43.88	2.5
	324		FS	xxxxxxxx		36.69	2.8
93	326		FS	xxxxxxxx		23.69	2.4
	326		FS	xxxxxxxx		25.77	3.1
97	373		FS	xxxxxxxx		37.69	2.6
	373		FS	xxxxxxxx		32.76	2.8
100	412		FP	xxxxxxxx		82.56	6.9

Instructions
TD-2R-DETAIL
TD-2R-EC
SUMMARY
LEAVE RATES
⊕

Bus 40 is only listed once because there is only one driver, so the total miles and hours reflect the full day.

Bus 93 has an AM Driver and a PM Driver, so there are two lines for Bus 93 that reflect the AM and PM Miles and Hours.



# TD2-R

The Summary Page of the TD2-R totals each piece of data related to all Drivers and provide the LEA Totals we compare to TIMS.

Number of Buses  
Route Hours  
Route Mileage

<i>CALCULATED FIELDS</i>	NUMBER BUSES	ROUTE HOURS	DAILY RATE	LEAVE HOURS	LEAVE COMP.	ROUTE MILEAGE
LEA TOTALS FOR REGULAR BUSES	92	284.01	\$ 3,243.74	4129.0	\$ 51,787.09	4903.5
LEA TOTAL FOR EXCEPTIONAL CHILD BUSES	12	109.2	\$ 1,322.67	2787.6	\$ 34,258.44	1010.4
LEA GRAND TOTALS	104	393.21	\$ 4,566.41	6916.6	\$ 86,045.53	5913.9



# TD2-R and TDTIMS Diagnostic Report

There is a TDTIMS Diagnostic Report to help Transportation Staff quickly review the estimated Daily Miles and Driving Hours of the Planned Bus Routes in TIMS.

*Diagnostic: Route Time and Miles Detail*

Can be found under User Defined > Stops/Runs/Routes

Be sure the report is set to Screen (lower left) and Choose Run Report (on right)

The screenshot shows the 'Stops / Runs /Routes Reports' menu in the TDTIMS software. The menu items include:

- Diagnostic: Neg. Times Between Runs [R13]
- Diagnostic: Route Time and Miles Detail [R13]
- Diagnostic: Route Time and Miles Summary [R13]
- Diagnostic: Runs Zero Loaded Miles [R13]
- Diagnostic: Stop Times After 5:00 PM [R13]
- Diagnostic: Stop Times Before 6:00 AM [R13]
- TDTIMS: AM ARRIVAL ARCHIVE [R13]
- TDTIMS: PM School Services Archive [R13]
- TDTIMS: Route Count [R13]
- TDTIMS: Route Time and Miles Submit [R13]
- TDTIMS: Runs and Routes Archive [R13]
- TDTIMS: Services and Stops Archive [R13]
- Workbook: Route Count [R13]
- Workbook: Route Time and Miles [R13]
- Planned Driver Time and Miles (Choose Bus)
- Route Report: Stops Only (Choose Bus)
- Standard Run Frequency Count by AM/PM
- Standard average speeds for routes
- Standard average speeds for runs
- Standard route distance
- Standard route report #1 PTS3
- Standard route report #2 PTS3

On the right side of the menu, there are buttons for Edit, Add, Delete, Copy, Rename, Run Report (highlighted with a red box), Format, and Edit Security Group.

At the bottom left, there are radio buttons for Printer, Disk file, Screen (selected), and PDF. The 'Run Report' button is also highlighted with a red box.

At the bottom right, there are buttons for Browse, Eject page at report's start, Disk File Name: [input field], Send As Email Attachment, Email..., and Exit.

# TD2-R and TDTIMS Diagnostic Report

This report will list each Bus Number in TIMS and the Miles\Time for each Run throughout the entire day's Route.

According to TIMS Data

In the AM, Bus 001 does 59.44 Miles in 131 minutes

In the PM, it does 54.54 Miles in 138 minutes.

All Day, Bus 001 is scheduled to do 114 Miles (113.98) per day and drive a total of 4.48 Hours.

Mileage		Time	
		Negative slack is not included in totals, but indicates problems with bell times or run lengths that should be corrected.	
<b>Route 001</b>		Route Times in Minutes:	
328.004			
Loaded	49.10	Loaded + Checkpoint	131
Deadhead	0.00	Deadhead	0
Checkpoint	10.33	Slack	0
		Negative Slack	0
<b>Total</b>	<b>59.44</b>	<b>Total</b>	<b>131</b>
328.104			
Loaded	51.25	Loaded + Checkpoint	138
Deadhead	0.00	Deadhead	0
Checkpoint	3.30	Slack	0
		Negative Slack	0
<b>Total</b>	<b>54.54</b>	<b>Total</b>	<b>138</b>
<b>Summary for Route 001</b>			
Loaded	100.35	Loaded + Checkpoint	269
Deadhead	0.00	Deadhead	0
Checkpoint	13.63	Slack	0
		Negative Slack	0
<b>Total</b>	<b>113.98</b>	<b>Total Minutes</b>	<b>269</b>
		<b>Total Hours</b>	<b>4.4833</b>

# TD2-R and TDTIMS Diagnostic Report

Please Note that TIMS Time typically reflects only the Driving Hours for each Bus. TIMS does not include the Non-Driving Time paid to each Bus Driver.

**Example:**

If an LEA pays 15min extra in the AM and PM for Pre\Post Trip duties, that would be 30min of time not reflected in this TIMS Diagnostic.

Under this example, the Driver for Bus 001 should be driving 4.48 hours per day with another 0.5 hours for Pre\Post Trip, or roughly 5 Hours per day.

Mileage		Time <small>Negative slack is not included in totals, but indicates problems with bell times or run lengths that should be corrected.</small>	
<b>Route 001</b>		Route Times in Minutes	
328.004		Loaded + Checkpoint	131
Loaded	49.10	Deadhead	0
Deadhead	0.00	Slack	0
Checkpoint	10.33	Negative Slack	0
Total	59.44	Total	131
328.104		Loaded + Checkpoint	138
Loaded	51.25	Deadhead	0
Deadhead	0.00	Slack	0
Checkpoint	3.30	Negative Slack	0
Total	54.54	Total	138
<b>Summary for Route 001</b>		Loaded + Checkpoint	269
Loaded	100.35	Deadhead	0
Deadhead	0.00	Slack	0
Checkpoint	13.63	Negative Slack	0
Total	113.98	<b>Total Minutes</b>	<b>269</b>
		<b>Total Hours</b>	<b>4.4833</b>

# TD2-R and TDTIMS Diagnostic Report

Summary for Route 001			
Loaded	100.35	Loaded + Checkpoint	269
Deadhead	0.00	Deadhead	0
Checkpoint	13.63	Slack	0
		Negative Slack	0
<b>Total</b>	<b>113.98</b>	<b>Total Minutes</b>	<b>269</b>
		<b>Total Hours</b>	<b>4.4833</b>

1	2	3	4	5	6	7	8
BUS NO.	SCH. NO.	DRIVER NAME	EMP. ST	RUR/ URB.	INTRA CITY	RT. MI. DAILY	ROUTE HOURS
240	<-----	# Lines Entered	xxxxxxx	xxxxxxx	xxxxxxx	20013.6	1207.1
001	412		FP	xxxxxxx		116.46	5.0

**Example:**

Now take a look at the information for Bus 001 in the TD2-R.

The Daily Miles and Time should be in the same ballpark as TIMS.

If the miles or time are off by just a few minutes or a handful of miles, then consider this a successful audit of Bus 001.

However, if you see big differences between TIMS and the real world data of GPS\Odometer Miles and Driver Payroll Hours... you should research to determine which is correct (if either) and what needs done to fix the issue.

# TD2-R and TDTIMS Diagnostic Report

<b>Mileage</b>		<b>Time</b>	
		Negative slack is not included in totals, but indicates problems with bell times or run lengths that should be corrected.	
<b>Report Summary</b>		Report Summary Times in Hours	
Loaded	3370.99	Loaded + Checkpoint	9525
Deadhead	0.32	Deadhead	4
Checkpoint	549.00	Slack	27
		Negative Slack	0
<b>Total</b>	<b>3920.31</b>	<b>Total Hours</b>	<b>159.3500</b>

The last page of the Diagnostic: Route Time and Miles Detail report will contain the total planned Miles and Driving Hours in TIMS.

Depending on the average Non-Driving Time paid per Bus, you will need to add the additional total hours paid to the TIMS Hours listed.

Example: each Driver gets an additional 20min per day (10min AM and PM)

- 20 minutes across 57 Buses is 1,140 minutes.
- 1,140 minutes divided by 60 minutes equals 19 Hours

So ... 159.35 Driving Hours plus 19 Non-Driving Hours equals 178.35 Daily Payroll Hours

# TD2-R

Check back to the Summary Page of the TD2-R

The LEA Grand Totals for Route Hours and Route Mileage should be very close to the Total Miles and Time on the last page of the *TIMS Diagnostic: Route Time and Miles Detail*

CALCULATED FIELDS	NUMBER BUSES	ROUTE HOURS	DAILY RATE	LEAVE HOURS	LEAVE COMP.	ROUTE MILEAGE
LEA TOTALS FOR REGULAR BUSES	92	284.01	\$ 3,243.74	4129.0	\$ 51,787.09	4903.5
LEA TOTAL FOR EXCEPTIONAL CHILD BUSES	12	109.2	\$ 1,322.67	2787.6	\$ 34,258.44	1010.4
LEA GRAND TOTALS	104	393.21	\$ 4,566.41	6916.6	\$ 86,045.53	5913.9

# Why do we compare TIMS to the TD2 and TD2-R?

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Student Distance Data is used in the funding formula to help calculate the annual transportation allotment (PRC-56) for your district.

Therefore, we compare TIMS Data to “Real World” Data from your Head Counts, Reported Daily Miles and Reported Daily Payroll Hours to ensure the data is as accurate as possible before applying TIMS Student Distance information to help determine your annual transportation funding.

# TDTIMS Data Comparison

The number of Assigned Students, Daily Miles, Daily Hours and Daily Buses Operated in TIMS must, at a minimum, meet 90% of the numbers submitted to NCDPI on the TD2 and TD2-R

<i>TIMS as % of DPI (TDTIMS Summary)</i>				
	<u>Riders</u>	<u>Miles</u>	<u>Hours</u>	<u>Buses</u>
<i>TIMS</i>	6927	6188.34	332.5 55.5 388	111
			Total Non-Driving Time in Hrs.	
			Total TIMS Time	
<i>DPI</i>	6317	6081	380.7	111
<i>%</i>	109.66%	101.77%	101.92%	100.00%



# TDTIMS Ridership Comparison

TIMS as % of DPI (TDTIMS Summary)				
	Riders	Miles	Hours	Buses
TIMS	6927	6188.34	332.5 55.5 388	111
			Total Non-Driving Time in Hrs.	
			Total TIMS Time	
DPI	6317	6081	380.7	111
%	109.66%	101.77%	101.92%	100.00%

In this example, TIMS shows 6,927 daily riders and the TD2 showed an average of 6,317 each day during Students Counts Week. The difference of 610 riders averages out to less than 6 students per bus who are assigned in TIMS but may not have ridden during students count week.

***Hint: If you maintain accurate data, your Assigned Riders in TIMS should ALWAYS be more than your actual Daily Riders***

# TDTIMS Miles Comparison

TIMS as % of DPI (TDTIMS Summary)				
	Riders	Miles	Hours	Buses
TIMS	6927	6188.34	332.5 55.5 388	111
			Total Non-Driving Time in Hrs.	
			Total TIMS Time	
DPI	6317	6081	380.7	111
%	109.66%	101.77%	101.92%	100.00%

In this example, TIMS shows 6,188 daily miles and the TD2-R reported 6,081 daily miles for the entire bus fleet. The difference of 107 miles averages out to less than one-mile per bus.

***Hint: If you maintain accurate data, your planned Bus Miles in TIMS should ALWAYS be more than your actual Daily Miles***

# TDTIMS Hours Comparison

TIMS as % of DPI (TDTIMS Summary)				
	Riders	Miles	Hours	Buses
TIMS	6927	6188.34	332.5 55.5 388	111
			Total Non-Driving Time in Hrs.	
			Total TIMS Time	
DPI	6317	6081	380.7	111
%	109.66%	101.77%	101.92%	100.00%

In this example, TIMS shows planned bus routes should produce up to 388 Daily Driver Hours and the TD2-R reported 380.7 Daily Driver Hours from Payroll. The difference of 7.3 hours equals 438 min, which averages out to less than 4 minutes difference per bus.

***Hint: If you maintain accurate data, your planned Routes in TIMS should produce precise estimates of Daily Payroll Hours for each Route.***

# TDTIMS Bus Comparison

TIMS as % of DPI (TDTIMS Summary)				
	Riders	Miles	Hours	Buses
TIMS	6927	6188.34	332.5 55.5 388	111
			Total Non-Driving Time in Hrs.	
			Total TIMS Time	
DPI	6317	6081	380.7	111
%	109.66%	101.77%	101.92%	100.00%

In this example, TIMS shows 111 buses are operated daily while the TD2-R shows the same 111 buses in daily operation

***Hint: Bus comparisons should always be 100% unless a bus was added or removed after the TD2-R was turned in during October and before TDTIMS is submitted in November***

# TDTIMS Consistent Miles & Hours Data

TIMS as % of DPI (TDTIMS Summary)				
	Riders	Miles	Hours	Buses
TIMS	6927	6188.34	332.5 55.5 388	111
			Total Non-Driving Time in Hrs.	
			Total TIMS Time	
DPI	6317	6081	380.7	111
%	109.66%	101.77%	101.92%	100.00%

In this example, both comparisons (miles and hours) are off by the same approximate percentage (101.77% and 101.92%)

***Hint: If either piece of data (Bus Miles or Driver Hours) are Above/Below 100%, then you should expect the other piece of data to be off by the same percentage.***

# TDTIMS

## Inconsistent Miles & Hours Data

Miles	Hours
6534.21	263
	8
	271
5193	271.4
125.83%	99.67%

In this example, the Driver Hours comparison is nearly perfect as TIMS Data show 271 Driving Hours and Payroll shows 271.4 Paid Hours Daily. (99.67%)

The Miles comparison raises a lot of questions as TIMS shows 6,534 Miles being Driven Daily, but the Odometer Mileage shows just 5,193 miles (125.83%). The additional 1,341 miles in TIMS does not make sense, especially when you consider the Hours were an exact match.

*Question: How fast would TIMS Buses have to be driving to do an extra 1,300 miles in the same amount of time?*

*Answer: They cannot. Accuracy of TIMS Data and Payroll Hours are both Highly Questionable*

# TDTIMS - Bad Driver Hours

Miles	Hours
3034.94	125
	20
	145
2795	178
108.58%	81.18%

In this example, TIMS Data show that the 3,034 Miles driven daily by TIMS routes should result in 145 Daily Driver Hours.

However, the TD2-R reported 2,795 miles being driven each day while Payroll reported 178 Daily Hours being paid to drivers.

*Question: How can TIMS show buses doing an extra 240 miles per day in 33 less hours?*

*Answer: Driver Payroll Error – Drivers were being paid for more hours than they were driving. TIMS Routes were also not completely updated and accurate.*

# TDTIMS - Bad Student Assignments

Accurate Student Assignments are the most important piece of the Annual TDTIMS Audit as Student Distance Data (how far your riders live from school) is one of the key factors in determining your annual funding allotments.

Therefore, if you do not have all of your daily bus riders assigned in TIMS, the data used to calculate your funding may be incorrect. In order for your TDTIMS Student Distance to be used in the funding formula, your TIMS Assignments must meet at least 90% of your Students Headcounts from the TD2.

This district submitted data with just 83% of their headcount riders being assigned in TIMS. As a result, their data could not be used in the funding formula.

	Riders
<i>TIMS</i>	2143
<i>DPI</i>	2575
<i>%</i>	83.22%



# TDTIMS - Minimal Student Assignments

Since student assignments in TIMS must meet at least 90% when compared to Student Headcounts, there are some districts who, upon reaching the 90% minimum, believe they have done enough and will submit their TIMS Data as Current and Accurate.

In this example, the district has “passed” the audit with 91.58% of their Students Assigned in TIMS. However, their TIMS Assignments are still short 1,070 students when compared to their Student Headcounts.

	Riders
TIMS	11645
DPI	12715
%	91.58%

This minimal submission can result in skewed funding for next year based on the students distances of the riders you do not have assigned in TIMS.

*Hint: TIMS Assigned Riders should ALWAYS be more than your actual daily ridership. Otherwise, your buses are likely to be overcrowded and, in the event of a bus accident, your passenger lists would not be accurate.*

# Get an Early Start

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Don't wait until TDTIMS in November to discover there are errors in the TD2 and TD2-R or problems with TIMS Data.

Get an early start and complete your own internal audit of the data before you turn in the TD2 and TD2-R in October.

Each of the last two years, there have been dozens of LEAs that have had to submit Revised TD2 and TD2-R reports to NCDPI.

Some LEAs did not fully complete all reports until the week before Christmas Break.

# Perform an Internal Audit

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A lot of districts complete their own comparison of TIMS Data to the data submitted in the TD2 and TD2-R.

Since the TD2 and TD2-R are due a few weeks before TDTIMS, we encourage you to compare your own data at the bus level to ensure no large discrepancies are present during the submission of TDTIMS.

***Hint: Districts who utilize TIMS correctly already have the most current and accurate information available in the computer and have no worries when it comes to meeting 90% on any measure.***

***We could Audit some LEAs any day of the year and they would easily pass the comparison of Real World Data to planned Data in TIMS.***

# Perform an Internal Audit

## Student Counts

BUS NO.	TYPE OF RUN	TYPE STUDENT	TOTAL # STUDENTS TRANSPORTED
172	R	R	56
173	R	R	48
175	R	R	52

The TD2 lists the Total Number of Students Transported for each bus in operation. Once the TD2 has been completed, you can compare your TIMS Assignments on each Bus to the Headcounts from each bus.

***Hint: this internal audit can help prioritize your updates on the buses that are the "most incorrect"***

# Perform an Internal Audit

## Bus Miles & Driver Hours

The TD2-R lists the Daily Miles and Daily Driver Hours for each bus in operation. Once the TD2-R has been completed, you can compare your TIMS Miles and Hours to the TD2-R Miles and Hours for each bus.

***Hint: The TDTIMS Diagnostic: Route Times and Miles Detail will provide a bus by listing of TIMS Miles and Hours that you can use to compare to TD2-R Miles and Hours***

B	C	D	E	F	G	H	I
1	2	3	4	5	6	7	8
BUS NO.	SCH. NO.	DRIVER NAME	EMP. ST	RUR/ URB.	INTRA CITY	RT. MI. DAILY	ROUTE HOURS
27						22	2.0
56						50	3.2
183						41	3.0
193						40	2.8
194						30	2.7

# Diagnostic Reports will help

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- ◆ Stops/Runs/Routes > Diagnostic: Stops Times After 5:00 PM
- ◆ Stops/Runs/Routes > Diagnostic: Stops Times Before 6:00 AM
- \*Note: your data is not 'wrong' if you have stops listed after 5:00 PM or before 6:00 AM – your goal is to have TIMS accurately reflect what is really happening with your bus routes on a typical day.
  
- ◆ Stops/Runs/Routes > Diagnostic: Route Time and Miles Summary
- ◆ Stops/Runs/Routes > Diagnostic: Route Time and Miles Detail
- ◆ Stops/Runs/Routes > Diagnostic: Neg. Times Between Runs
- ◆ Stops/Runs/Routes > Diagnostic: Runs Zero Loaded Miles
- ◆ Bus Passes > Diagnostic Route Riders Schdst  $\leq 0$
- ◆ Bus Passes > Students Stop not on Rte

# New Diagnostics to Identify Students Missing PowerSchool ID

TDTIMS Data from 4 Years ago (2014-2015) contained over 8,300 student records without a PowerSchool ID. Almost 7,000 of these students were assigned bus riders.

- 61 LEAs submitted at least one student without a PowerSchool ID as part of TDTIMS.
- One LEA submitted nearly 4,300 bus riders without a PowerSchool ID

In an effort to prevent this, we encouraged all LEAs to avoid hand entering students into TIMS and to complete a Student Upload (UPSTU) from PowerSchool if they discovered they were missing students in TIMS.

As a result of this effort, there was a reduction in these records for the 2015-2016 TDTIMS submissions.

- There were 5,200 students records without a PowerSchool ID from 29 LEAs, and 2,141 of those were assigned bus riders.
- 86% of the assigned riders without a PowerSchool ID (1,844 records) were from 3 of the 29 LEAs.

The goal is to have Zero Students without a PS ID across All LEAs

# New Diagnostics to Identify Students Missing PowerSchool ID

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There are two new diagnostics in TIMS to identify students and bus riders who are missing a PowerSchool ID.

- ◆ All Students and Transportation > Diagnostic: Students Missing PowerSchool ID
- ◆ All Students and Transportation > Diagnostic: Riders Missing PowerSchool ID

Moving forward, LEAs should avoid hand entering any students into TIMS. All student records should be brought into TIMS by completing an UPSTU using the TIMS Extract from PowerSchool.

Please review the results of the new diagnostics and make sure all Bus Riders have a valid PowerSchool ID prior to submitting TDTIMS. Bus Riders missing a PowerSchool ID will not be applied toward annual funding allotments.

At the very least, LEAs will need to hand enter the missing PowerSchool ID into TIMS for all assigned Bus Riders.



# Other Things to Check in TIMS

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♦ **Examine the data for completeness before generating the reports:**

- Are your Bell Times Correct?
- Are all riders located and assigned to stops?
- Are all riders on routes?
- Do both AM and PM runs exist and are they placed on routes?
- Do you have any runs with zero mileage due to incomplete run directions?
- For routes serving multiple runs AM and/or PM, is the slack time between runs valid?
- Have you included special needs runs and routes?

# TDTIMS Deadline

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## NCDPI Due Dates

**October 15<sup>th</sup>, 2019**  
– TD2 and TD2-R

**November 15<sup>th</sup>, 2019**  
– TDTIMS

The 2019-2020 TDTIMS Reports and Workbooks will be distributed to LEA TIMS Servers over the month of October. Both the Transportation Director and the TIMS Coordinator will be notified when these files are in place.

You do not have to wait until November 15<sup>th</sup> to complete TDTIMS. LEA Staff are encouraged to complete the annual Transportation Audit as soon as TIMS Data is fully updated and accurately reflects the information reported on the TD2 and TD2-R.