Cost of Transportation in Michigan

Prepared for the

Michigan School Finance Collaborative

By

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Contents

Introduction

In January of 2018, the School Finance Research Collaborative (SFRC) released the study report "Costing Out the Resources Needed to Meet Michigan's Standards and Requirements." Augenblick, Palaich and Associates (APA) in conjunction with Picus, Odden & Associates (POA) prepared the study which examined the resources needed by students, teachers, schools, LEAs, and charters in Michigan to meet the academic standards expected in Michigan. The report focused on operating expenditures but did not include a deep evaluation of the transportation costs local education agencies (LEAs) face.

The 2018 report reviewed Michigan's current general education transportation funding approach. It recommended that transportation be removed from base funding and that a separate transportation formula be developed for the state. The recommendation recognized that a common per pupil funding amount does not consider the different cost factors that impact transportation costs for LEAs across the state. Cost factors include the number of students being bused, the distance buses must travel, the density of the LEA, and other factors. Michigan LEAs consists of high density urban and suburban areas, low density rural areas, and an island that does not allow vehicles.

Each LEA's unique geographic and student make-up drives its specific transportation costs, but the current system does not provide differentiated funding for these differences. This means that some LEAs that deal with higher costs to provide transportation, must spend quite a bit of their base funding to do so, while other LEAs that provide little or even no regular transportation receive additional funding for costs they do not incur. The report recommended the actual transportation costs that LEAs face be funded. Thus, a new transportation formula would only fund LEAs that are providing transportation and would be built to recognize the cost factors that impact transportation costs.

This report is a supplement to the 2018 study and provides the results of a transportation study. As the culmination of a two-part study, this report first identifies common approaches used to fund transportation for LEAs and presents an analysis of other states' transportation formulas completed during the first part of the study, the study team previously reported those finding to the Transportation Advisory Group (TAG). The TAG then selected state transportation models that Michigan could model its transportation formula after. The second part of the study presented in this report was focused on creating a formula to fund school LEA transportation in Michigan. The study team worked with the TAG to first review available data and then map that data to create an approach using components of the states identified in Part One.

Part One: Identify and Analyze other State's Transportation Formulas

To identify each state's transportation funding formula, the study team reviewed public information on each system and then reached out to the state's department of education (DOE) for further information and clarification. This research began in the spring of 2020. Although the pandemic made it difficult to reach all the states, the study team ultimately reached DOE staff in 27 states, which allowed the study team to confirm funding formula information. The table in Appendix A provides details on each state's transportation funding system.

Transportation Funding Approaches

A number of transportation funding types were identified across the country. The most common approaches were including transportation in base funding, separate transportation formula funding, and reimbursement, with other approaches, such as funding for excess costs were less common. Though formulas may be categorized similarly, all states have a unique set of factors that go into funding transportation. Additionally, some states use a mix of approaches for funding. The descriptions below provide details on aspects of each funding type that differ state to state and highly influence how/what is funded for each LEA.

Inclusion in Base Funding

Like Michigan, several states fund transportation within their base education funding formula. This means that no adjustments are made for the specific factors that impact transportation costs, such as the percentage of students transported, density of the LEA, or other circumstances. While including transportation in base funding does simplify funding and is very predictable for LEAs, it likely creates inequity in overall funding between LEAs. The most obvious example of this inequity is a LEA that provides little or no transportation and thus frees up that transportation funding amount within its base funding for other operating purposes.

Formula Funding

Several states use a formula or set of formulas to determine the amount of transportation funding each LEA receives. Formula funding varies widely between states both in the factors included and the level of complexity of the formula(s). Even similar factors can be addressed in different ways across formulas.

Factors used in different formulas include:

Miles Traveled: Miles traveled is a straightforward approach to measuring the costs associated with transporting students: it is simply the number of reported miles students are transported times a cost per mile. Miles traveled supplies differentiated funding based on actual costs LEAs face. A less dense LEA will generally face higher mileage costs.

Number of Students Transported: Another straightforward calculation is reimbursement per student transported. Eligible students must meet a state's distance from school requirement to qualify. A simple students transported model would overfund fund some LEAs, likely those with high density and high ridership, while underfunding other LEAs, likely those with low density and/or low ridership.

Sparsity/Density: A key factor in the costs per rider that LEAs face is the number of miles traveled per student transported. Several state formulas include sparsity or density as a specific factor in the funding. This adjustment takes into account the economy of scale issues LEAs face due to a lack of density. States implement sparsity/density adjustments with varying levels of complexity, with some states determining eligibility only for specific LEAs, while others, such as Kentucky, use nine different density graphs to make its adjustments.

Efficiency: LEA Efficiency adjustments are meant to incentivize LEAs to maintain the most cost-conscious approach to transportation possible. Efficiency adjustments are based on comparisons to other LEAs and usually based on total expenditures. Since LEAs are not reimbursed for actual costs, they are incentivized to keep costs as close to formula funding as possible.

Reimbursement Funding

Reimbursement funding was the most common approach identified by the study team. The mechanics of many reimbursement approaches contain aspects of a formula, but the final funding level is based on some measure of actual costs for the LEA.

Key concepts embedded in most of the reimbursement formulas include:

Allowable Expenses: The driving factor of a reimbursement formula is the identification of allowable expenses for each LEA. Most states identify a list of allowable transportation costs that can include miles traveled, number of students transported, salaries and benefits, licensure, student IEP need, vocational programs, capital reimbursement, before/after school programming, summer programs, and maintenance and operations.

Percentage of Reimbursement: Once the allowable expenses are identified, the percentage of reimbursement must be set. A majority of reimbursement formulas limit the amount of reimbursement to a percentage of actual or allowable costs. This means that LEAs share in some percentage of costs to transport students.

Efficiency: Incentivization for efficiency is embedded in the reimbursement formula process. Since LEAs know they will share in the costs, they have a clear line of sight on the percentage of costs that will need to come from local funds for each transportation dollar spent.

Excess Costs

A few states provide additional funding for LEAs facing costs above the base funding approach. For example, Arkansas uses a regression model to distribute additional funding for LEAs that deal with higher transportation costs due to LEA characteristics. In Colorado, funding is first determined by miles transported but costs above the calculation are reimbursed at around 34 percent. These excess cost funding streams seem to be used in place of a formula that is more responsive to the specific costs' LEAs face in the main funding stream, for example not including things like isolation or density in the formula.

State Examples

The study team presented state examples to the TAG for feedback on which formula best represents the cost factors in Michigan. The TAG determined the best way to fund transportation would be through a formula that included an efficiency factor. The study team selected five state examples that best met these criteria, as seen in Appendix B. The TAG then selected North Carolina and Ohio as the two states that would be the best fit for Michigan.

North Carolina

North Carolina's system mixes reimbursement and formula funding with an emphasis on efficiency. The formula groups LEAs in similar groups based on certain characteristics such as average distance from school to school, number of students transported per mile, elevation, and the needs of special education students. Once LEAs are grouped, they are given an efficiency rate based on the number of buses operated, number of students transported, and total expenditures. Once an efficiency rate is set for each LEA, the reimbursement rate is 10 percentage points above efficiency rating with a cap at 100 percent. For example, if a LEA has an efficiency rate of 70 percent, it receives a reimbursement rate of 80 percent.

Ohio

Ohio's formula includes numerous adjustments that look at LEA characteristics, local share, and efficiency. The base payment for LEAs is calculated as the "greater of" funding on a per pupil or per mile calculation, whereas the LEA receives whichever calculation provides the greatest funding. Both are based on current year figures. LEAs are incentivized to provide transportation to more students by providing more funding to LEAs that transport students that live within one mile of the school or are high school students (groups that typically receive less transportation services), as well as providing transportation to students attending non-public settings.

The study team presented the findings from Part One of the study to the SRFC. The SRFC agreed with TAG and the study team that North Carolina and Ohio were the best state models to draw from as the study team developed alternative transportation funding models for Michigan. The study team next steps included collecting Michigan data that aligned with Ohio and Michigan's transportation systems and beginning to model the LEA-level impact to transportation funding using those models.

Part Two: Modeling Transportation Formulas

The first step in this work was to identify and understand the transportation data available for LEAs in Michigan. After the data was collected and analyzed, a set of fifteen alternate transportation models were created. The study team and TAG analyzed the alternatives and identified two approaches that provide adequate transportation funding for Michigan LEAs while also incentivizing efficient spending. This section of the report describes how the two approaches were identified.

Identification of Data

The study team created a database from the SE 4094[1] for the 2018-19 school year. Though data was available for more recent years, the study team felt the 2018-19 school year provided the most accurate data as it was the last year without any pandemic impacts. The database was cleaned to exclude any outliers or LEAs without rider information or expenditure data. The outliers that were removed from the database were LEAs with extremely low or extremely high cost per rider; these were LEAs that were three or more standard deviations above or below the mean.

Once the data was cleaned, only 42 charter schools remained in the dataset due to a lack of ridership and expenditure data. The small sample of charter schools made it difficult to run a separate analysis of their data, therefore all charter schools were removed from the analysis. Even though charters are not included in this analysis, the study team believes the results could be applied to charters. This would be consistent with the approach taken in the 2018 study, which utilized the philosophy that funding should be provided for the actual costs LEAs and charters have.

The study team began the analysis of the SE 4094 data by grouping LEAs by National Center for Education Statistics (NCES) Locale Classifications (Appendix C). This was grouping was used since it is universal throughout the U.S. and its LEA characteristics are usually representative of LEA costs. Once the grouping was established using the umbrella locale classifications City, Rural, Town, and Suburb, the study team ran an analysis by correlation to see the relationship between different expenditure categories to identify which expenditure categories were cost factors.

[1] A financial information database (FID) for transportation data

Table 1 shows the correlations between different costs and characteristics broken out by NCES Locale Classifications. A 1.0 would indicate a perfect correlation while a 0.0 is no correlation.

Table 1: Correlation of Expenditures (Exp.) for Traditional Public School LEAs

	City	Rural	Town	Suburb	Total
Exp. per Mile and Exp per Rider	0.312	0.069	0.356	0.707	0.412
Exp. per Mile and Rider per FTE	-0.075	-0.006	-0.097	-0.044	-0.002
Exp. per Mile and Salary per FTE	-0.063	0.138	0.118	0.130	-0.080
Exp. per Rider and Rider per FTE	0.045	-0.036	-0.109	-0.035	-0.050
Exp. per Rider and Salary per FTE	0.079	-0.022	-0.040	-0.019	-0.043
Rider per FTE and Salary per FTE	0.865	-0.088	0.322	0.715	-0.023
Exp. per square Mile and Exp per Rider	0.231	0.337	0.464	0.019	0.050

There are no strong correlations in any of the total expenditure categories which indicated to the study team that none of these factors were key drivers in the cost of transportation. The strongest correlations of 0.865 appeared in cities between expense per riders and salary per FTE. This signifies that expense per rider is driven by the salary per FTE.

Often in transportation, there are clear links between specific cost factors and the costs per rider a LEA faces. Since no strong relationships were found when looking at the data by NCES Locale, the study team and TAG decided to see if LEA density, a common cost factors, might be a better predictor of LEA transportation costs.

Creation of Transportation Funding Formula

The study team presented the correlation findings from the database along with a crosswalk of data (Appendix D) needed to replicate the Ohio and North Carolina Transportation formulas to the Transportation Advisory Committee. The SE 4094 did not provide the same level of data that was needed to replicate portions of the Ohio and North Carolina formulas. Some data that was missing included school start times, distance from school to school, and elevations. The study team, in collaboration with the TAG, decided that reaching out to LEAs to collect the missing data was not worth the effort required of LEAs at this time. Since the data would not be collected, the study team was unable to replicate the components used in the Ohio and North Carolina models and instead used the SE 4094 to create fifteen alternative ways of funding transportation. The following list shows the 15 alternatives that were created;

- 2018 Study Average
- Current Study Average
- Average Cost by Density
- Average Cost by NCES Locale Classifications
- 100% Reimbursement
- 80% Reimbursement
- Lower of Average or Actual
- Lower of Average or Actual by Density
- Lower of Average or Actual by NCES Locale Classifications
- Lower of One Standard Deviation Above the Average or Actual
- Lower of One Standard Deviation Above the Average or Actual by Density
- Lower of One Standard Deviation Above the Average or Actual by NCES Locale Classification
- Efficiency Formula
- Efficiency Formula by Density
- Efficiency Formula by NCES Locale Classification

The alternatives looked at both different ways to group LEAs and different ways to provide reimbursement. Since the study team had density data, it decided to use it as a LEA characteristic grouping mechanism. This is a practice that is utilized in other states, it is easily updated, and easy to understand. The alternative methods for funding transportation ranged from full reimbursement to an efficiency formula. The study team and the TAG identified the approaches that balanced funding LEAs based on actual costs with an emphasis on encouraging efficiency. This balance guaranteed there was motivation for LEAs to keep costs as efficient as possible, as well as ensuring LEAs bear some of the burden of the cost. Through this process, four of the approaches were identified: (1) lesser of actual or average costs by density, (2) lesser of actual or average cost by NCES Locale Code, (3) efficiency formula by density, and (4) efficiency formula by NCES Locale Code.

The first decision point that the TAG and the study team addressed was whether it was better to use NCES Locale Classification or density for LEA groupings. Density was calculated by taking the LEA's square miles divided by the number of riders. LEAs with the highest density (Density Group 1) transport many students over a smaller geographic area, while those with the lowest density (Density Group 4) transport few students over a large geographic area. The study team compared the density groupings to the NCES Locale Classifications in Table 2, in order to determine if Locale was a good indicator of the density of a LEA.

Table 2: Density and NCES Classification Comparison*

	City (32 LEAs)	Rural (243 LEA)	Suburb (132 LEA)	Town (83 LEAs)	Total (490 LEAs)
Group 1 (Highest Density)	26	33	93	8	160
Group 2	2	95	32	36	165
Group 3	3	75	4	27	109
Group 4 (Lowest Density)	0	39	0	12	51

** Six LEAs do not have square mileage data and are not included in this table*

Table 2 shows that most of the LEAs identified as being in a city fall into Density Group 1, the highest density category. This is to be expected as it can be assumed that there would be more riders per square mileage in cities. However, perhaps surprisingly, LEAs in the NCES Rural grouping are spread out across all four density groups rather than just in the Group 4, the lowest density category. This shows that rural LEAs vary in the geographic area they must cover, with some LEAs being small rural towns and others serving more spread-out communities.

The lack of relationship between the rural locale code indicated to the study team that the low correlations were likely due to differences in transportation cost factors within locale codes. The study team then examined, in Table 3, expenditures per rider broken out by density grouping and by if the LEA contracted third party transportation services. The contracted services could include anything from contracting busses, staff, or data processing software from a third party.

Table 3: Expenditures per Rider by Density broken out by Contract

Density Grouping	Traditional Public Schools (Contract)	Traditional Public School (No Contract)
Group 1 (Highest Density)	$924.68	$931.20
Group 2	$1,092.34	$1,049.90
Group 3	$1,176.86	$1,212.69
Group 4 (Lowest Density)	$1,298.38	$1,387.12
Statewide Average	**$1,059.64**	**$1,097.03**

The average expenditure per rider increases as the density decreases, which is what would be expected. There does not appear to be a cost saving between LEAs that contracted services versus LEAs that did not contract services.

After analysis and discussions with the TAG, density seemed to best represent the differences in characteristics that Michigan LEAs have that are likely to drive transportation costs. Additionally, the density groupings can adjust to actual changes in LEA demographics over time, allowing for adjustments if LEAs have large increases or decreases in students transported.

Following this decision to use density grouping as the focus of the analysis, the study team next had to decide whether to use the efficiency formula or a "Lesser of Average or Actual" approach. The lesser of actual or average costs approach reimburses LEAs up to their density group's average expense, while the efficiency formula reimburses at varied levels depending on the LEA's distance from density group average. It provides 100 percent reimbursement for all expenses one standard deviation below the density group's average. From one standard deviation below to the density group average, a sliding scale is used with expenses reimbursed from 100 percent to 87.5 percent. Similarly, expenses above average up to one standard deviation above average are reimbursed from 87.5 percent to 75 percent. Any expenses above one standard deviation above average are not reimbursed. They study team and the TAG reaffirmed the belief of continuing to use the density grouping over the NCES classification.

Tables 4 and 5 show the percentage of current expenditures LEAs would receive by density group from each approach

Table 4: Reimbursement for Current Spending using Lesser of Actual or Average by Density

Lesser of Average or Actual Formula by Density					
	Reimbursed Below Current Spending			Reimbursed at Current Spending	
	Number of LEAs	Percent of LEAs	Average Precent Not Funded	Number of LEAs	Percent of LEAs
Group 1 (Highest Density)	64	40.3%	-22%	95	59.7%
Group 2	68	41.5%	-19%	96	58.5%
Group 3	37	35.9%	-23%	72	66.1%
Group 4 (Lowest Density)	28	54.9%	-16%	23	45.1%
All (483 LEAs)	197	40.8%	-21%	286	59.2%

Utilizing the Lesser of Average or Actual Formula about sixty percent of LEAs would receive full reimbursement from the state for their current transportation expenditures. Density Group 3 has a higher percentage at about 66 percent of LEAs receiving full, while group 4 would have just forty-five percent of LEAs receiving full reimbursement of current expenditures. Overall, about 41 percent of LEAs would receive a reimbursement below current spending using this approach, and that reimbursement would be on average 21 percent less than their current transportation expenditures. Density Group 4 has the highest percentage of LEAs that would receive less than full reimbursement, at about 16 percent less than current expenditures.

Table 5: Reimbursement for Current Spending using the Efficiency Formula by Density

Efficiency Formula by Density					
	Reimbursed Below Current Spending			Reimbursed at Current Spending	
	Number of LEAs	Percent of LEAs	Avg Percent Not Funded	Number of LEAs	Percent of LEAs
Group 1 (Highest Density)	146	91.8%	-10%	13	8.2%
Group 2	154	93.9%	-8%	10	6.1%
Group 3	103	94.5%	-8%	6	5.5%
Group 4 (Lowest Density)	43	84.3%	-8%	8	15.1%
All	**446**	**92.3%**	**-9%**	**37**	**7.7%**

The efficiency model would fully reimburse far fewer LEAs than the Lower of Average or Actual Formula, with just about eight percent of LEAs fully reimbursed and around 92 percent receiving less than current spending. However, the reimbursement is only about nine percent less than what the LEA is currently spending on transportation, on average. The efficiency model also entices LEAs to spend less than the average and disincentivizes LEAs to spend above the average.

The study team met with the SRFC Steering Committee to discuss the findings and the pros and cons of the two models (Lesser of Average or Actual and Efficiency Formula). After discussing the pros and cons of each approach it was decided to recommend Lesser of Average or Actual for funding transportation in Michigan. This model accomplishes the goals of being both transparent and predictable. Policymakers and stakeholders can easily explain the approach and districts should be able to predict future funding. The approach is reflective of the actual costs that districts face while still requiring about 50 percent of districts to contribute local dollars to fund transportation above their density grouping's average.

Other Assumptions

There are a number of assumptions that have been included in the formula and others that need to be considered by policy makers. The additional assumptions that are embedded in the transportation formula include: how charter schools should be accounted for and how often the benchmarks in the formula should be updated. The study team took the same approach to charter schools as was recommended in the 2018 study. If a charter school is providing transportation, then it will be reimbursed for its costs. It is important to note that since charter schools do not have their own square mileage boundaries to use, the study team proposes using the density designation of the LEA in which the charter school is located.

Multiple benchmarks in the formula will need to be updated periodically. The first benchmark that will need to be updated is the LEA density groups. As noted previously, density groups are determined by the number of square miles in the LEA divided by the number of riders. LEAs with similar density amounts are then grouped together. The study team believes this metric should be updated every five years to account for LEAs that move in out of groups by having more or fewer riders. The other metric that needs to be updated is the average and standard deviations for each group. The study team believes these should also be updated every 5 years on the same cycle as other benchmarks to best reflect when LEAs move from one density group to another.

There are key assumptions the SFRC identified to be made during policy making. The study team recommends that districts that contact for services and are not paying the cost of state retirement be examined separately from those that do pay state retirement. This reports analysis did not differentiate between the two groups, but it is important to consider the impact on costs.

The study team also recognizes that though density is a good predictor of per rider costs, some districts will face costs far above their comparison group for reasons outside the districts control. With this in mind, districts should have the opportunity to apply for funding for extraordinary. This could be most relevant with districts that fall under the current isolated district act.

Lastly, in the interest of always striving for the most efficient practice districts should be required to be in a purchasing collaborative for items such as capital and ongoing cost such as fuel in order to receive the full funding identified within any new formula. Purchasing collaboratives can help reduce the costs to each district of many items.

Appendices

Appendix A: 50 State Transportation Review

The 50 State Transportation Review Table begins on the following page.

50 State Transportation Review

*states in **bold** were confirmed through state staff
**blanks were information that the team was not able to find

State	Type of Funding	Capital Funding	Max distance	Charter/private
ALABAMA	**Formula**	**Yes**	**2 miles**	**Traditional Public Schools** **Charter Schools**
ALASKA	Formula		1.5 miles	Traditional Public School Charter School Private School
ARIZONA	Reimbursement	Yes	K-8 = 1 miles 9-12 = 1.5 miles	Traditional Public School
ARKANSAS	Base Funding	Yes		Traditional Public School
CALIFORNIA	**Base Funding**	**No**	**No statewide restriction**	**Traditional Public School**
COLORADO	Reimbursement	No		Traditional Public School
CONNECTICUT	Reimbursement		K-3 = 1 mile 4-8 = 1.5 miles 9-12 = 2 miles	Traditional Public School Charter School Non-Profit Private School
DELAWARE	Base Funding		K-5 = 1 miles 6-12 = 2 miles	Traditional Public School Charter School Non-Profit Private School
FLORIDA	**Formula**	**No**	**2 miles**	Traditional Public School
GEORGIA	Reimbursement		1.5 miles	Traditional Public School Charter School
HAWAII	**None**	**No**	**K-5 = 1 mile** **6-12 = 1.5 miles**	**Traditional Public School**
IDAHO	**Reimbursement**	**Yes**	**1.5 miles**	**Traditional Public School** **Charter School**
ILLINOIS	**Reimbursement**	**Yes**	**1.5 miles**	**Traditional Public School**
INDIANA	**None**	**N/A**	**N/A**	**N/A**
IOWA	Base Funding	Yes	K-8 = 2 miles 9-12 = 3 miles	Traditional Public School Charter School
KANSAS	**Formula**	**No - Only special education**	**2.5 miles**	**Traditional Public School** **Non-profit Private School**
KENTUCKY	**Formula**	**Yes**	**1 mile**	**Traditional Public School** **Charter School**
LOUISIANA	**Reimbursement**	**No**	**1 mile**	**Traditional Public School** **Charter School** **Private School**
MAINE	**Reimbursement**	**Yes**	**2 miles**	**Traditional Public School**
MARYLAND	Base Funding		greater than walking distance	Traditional Public School

State	Type of Funding	Capital Funding	Max distance	Charter/private
MASSACHUSETTS	Reimbursement		1.5 Miles	Traditional Public School Charter School
MICHIGAN	Base Funding			Traditional Public School
MINNESOTA	Base Funding	Yes	**K-10 = 1.5 miles**	Traditional Public School Charter School
MISSISSIPPI	Reimbursement		1 mile	Traditional Public School Charter School
MISSOURI	**Reimbursement**	**Yes**	**3.5 miles 1 mile or more funded**	**Traditional Public Schools Charter Schools Private Schools**
MONTANA	Reimbursement	Yes	3 miles	Traditional Public School
NEBRASKA	**Reimbursement**	**No**	**4 miles**	**Traditional Public School Private School**
NEVADA	**Reimbursement**	**Yes**		Traditional Public School
NEW HAMPSHIRE	**Base Funding**	**No**	**k-8 = 2 miles**	**Traditional Public School Charter School Private School**
NEW JERSEY	Base Funding		2 miles pk-8 2.5 miles 9-12	Traditional Public School Charter School Private School
NEW MEXICO	**Reimbursement**	**Yes**	**k-6 = 1 mile 7-9 = 1.5 miles 10-12 = 2.0 miles**	**Traditional Public School Charter School**
NEW YORK	**Reimbursement**	**Yes**	**2-3 miles and up to 15 miles but paid starting at 1.5 miles**	**Traditional Public School Charter School Private School**
NORTH CAROLINA	**Formula**	**Yes**	**1.5 miles**	**Traditional Public School Charter School**
NORTH DAKOTA	Reimbursement		2 miles	Traditional Public School
OHIO	**Formula**	**Yes**	**State law requires more than two miles formula funds more than 1 mile**	**Traditional Public School Charter School Private School**
OKLAHOMA	Base Funding		1.5 miles	Traditional Public School
OREGON	**Reimbursement**	**Yes**	**1.5 miles**	**Traditional Public School Charter School**
PENNSYLVANIA	Reimbursement		k-5 = 1.5 miles 6-12 = 2.0 miles	Traditional Public School Charter School Private School

State	Type of Funding	Capital Funding	Max distance	Charter/private
RHODE ISLAND	**None**	N/A	N/A	N/A
SOUTH CAROLINA	**Reimbursement**	**No**	**1.5 miles**	**Traditional Public School**
SOUTH DAKOTA	Reimbursement			Traditional Public School Private School
TENNESSEE	**Formula**	**Yes**	**1.5 miles**	**Traditional Public School** **Charter School**
TEXAS	**Formula**	**No**	**2 miles**	**Traditional Public School** **Charter School**
UTAH	Reimbursement		K-8 = 1.25 miles 9-12 = 1.5 miles	Traditional Public School
VERMONT	Not Provided			Traditional Public School
VIRGINIA	Formula			Traditional Public School
WASHINGTON	Formula		1 mile	Traditional Public School
WEST VIRGINIA	Reimbursement		2 miles	Traditional Public School
WISCONSIN	**Base Funding**	**No**	**2 miles**	**Traditional Public School** **Charter School** **Private School**
WYOMING	**Reimbursement**	**Yes**	**k-5 = 1 mile** **6-12 = 2 miles**	**Traditional Public School**

Appendix B: Five State Examples of Transportation

To understand the specificity of formulas the study team identified a few states to examine more fully. The examples highlight reimbursement, formula, and reimbursement/formula approaches and examine the use of efficiency and sparsity adjustments.

South Carolina

Though South Carolina's formula is considered to be a fully state funded system, in fact districts must comply with state rules and recommendations to receive the full funding. If districts do not choose the most efficient model, they are responsible for paying the difference in costs. The state provides oversight for all aspects of the system, including a salary pay scale for all transportation staff. Districts must submit transportation routes to be approved by the state. In addition to traditional transportation, the state provides funding for summer school and vocational school transportation at a set amount. Not all districts receive state transportation funding and those that do not are not required to provide transportation.

North Carolina

North Carolina's system mixes reimbursement and formula funding that includes efficiency and is mostly state funded. The funding formula is based on each district's number of buses operated, number of students transported, and total expenditures. Part of the formula compares each district's distance school to school, number of students transported per mile of road, elevation, and needs of special education (SPED) students to other districts to determine each district's efficiency rate. Once an efficiency rate is set for each district, the reimbursement rate is 10 percentage points above efficiency rating with a cap at 100%. For example, if a district has an efficiency rate of 70%, it receives a reimbursement rate of 80%. In the 2019-20 school year, the reimbursement rate ranged from 67.5% to 100%.

Ohio

Ohio's formula includes numerous adjustments that look at district characteristics, local share, and efficiency. The base payment for districts is calculated at the greater of funding on a per pupil or per mile calculation. Both are based on current year figures. Districts are incentivized to provide transportation to more students with incentives for serving both students within one mile of the school and from non-public settings.

Other adjustments in the formula include an efficiency adjustment that assigns a target ridership adjusted for density – if a district exceeds target ridership, they receive an adjustment of up to 10% of the base. A sparsity adjustment is also added to some district's funding amounts. Final funding is the lesser of calculated funding or actual costs. Costs are shared based on the district's wealth, with higher wealth districts receiving less state funding.

Arizona

Arizona school districts receive funding based on the average daily route miles per eligible students transported. The state divides the daily route miles by the total number of eligible students transported. The state then sets a rate to be assigned for the distance that bus travels per student. If the bus travels:

- less than 0.5 miles the district receives $2.56 per student,
- 0.5 to 1.0 miles, a rate of $2.05, and
- over a mile, a rate of $2.56.

Additionally, the state provides a rate depending on school level, vocational programs and athletic trips. If the district is an elementary district, the district receives a 0.15 factor for a mile or less and 0.18 for more than a mile. If the district includes a high school, it receives a 0.10 factor for a mile or less and a 0.12 factor for more than a mile per elementary school student. High school districts receive a 0.25 factor for a mile or less and 0.30 for more than a mile.

Wisconsin

Wisconsin provides a per pupil amount to districts for student riders. Districts receive $35 per school year per rider for transportation from 2 to 5 miles, $55 for 5.1 to 8 miles, $82 to for 8.1 to 12 miles, and $365 for more than 12 miles. Additionally, districts will receive $35,000 annually if they have to transfer students over ice from their residence on an island. There are also adjustments for districts that provide housing in lieu of transportation, summer school and high cost transportation. A district will not receive more state aid than their actual costs of transportation.

Appendix C: NCES Locale Classifications

City

- **Large:** Territory inside an urbanized area and inside a principal city with population 250,000 or more.
- **Midsize:** Territory inside an urbanized area and inside a principal city with population less than 250,000 and great than or equal to 100,000.
- **Small:** Territory inside an urbanized and inside principal city with population less than 100,000.

Rural

- **Fringe:** Census-defined rural territory that is less than or equal to miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster
- **Distant:** Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster.
- **Remote:** Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster.

Suburban

- **Large:** Territory outside a principal city and inside an urbanized area with population of 250,000 or more.
- **Midsize:** Territory outside a principal city and inside an urbanized area with population less than 250,000 and greater than or equal to 100,000.
- **Small:** Territory outside a principal city and inside an urbanized area with a population less than 100,000.

Town

- **Fringe:** Territory inside an urban cluster that is les than or equal to 10 miles from urbanized area.
- **Distant:** Territory inside an urban cluster that is more than 10 miles and less than or equal to 35 from an urbanized area.
- **Remote:** Territory inside an urban cluster that is more than 35 miles from an urbanized area.

Appendix D: Crosswalk of Factors in Ohio and North Carolina Compared to the SE 4094

Data in the SE 4094	**Additional Data**
# of Miles Transported	Distance from School to School
# of Riders	School Start Times
Cost of Transportation Broken out by Expenditure Categories	Elevation
Square Mileage Data	High School Student Transported
Classification of District	Transportation Provided to Non-Traditional Public-School Student
# of Students Transported per Mile	
Staff FTE	
Special Education Data	