

Funding for Pupil Transportation

Framework for Analysis

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School districts spend approximately \$17 billion annually on pupil transportation. More than half of all students in the United States are eligible for transportation at public expense. Despite this major financial investment and the large number of daily student trips, relatively little scholarly material is written on funding for pupil transportation. This article provides research background on pupil transportation funding, establishes a comprehensive framework of analysis for evaluating methods of state funding, and presents case studies of six states to highlight institutional differences. The key questions about state pupil transportation policy are (a) whether pupil transportation is mandated by the state, (b) what the eligibility requirements are for state aid, and (c) what formula is used for reimbursement. Funding for pupil transportation varies greatly among states, with differences that include student eligibility for transportation, funding formulas, and state aid as a percentage of transportation costs. The primary method of pupil transportation funding consists of state reimbursement for a portion of a school district's expenditures. The remaining costs must then be covered by local funding sources. Unlike some other areas of school finance, pupil transportation programs receive little funding from the federal government. The research also identifies safety, school siting, and walking to school as areas in which pupil transportation policies have important impacts.

Public school districts spent approximately \$17 billion on pupil transportation in 2003–2004 (1). While this represents 4.2% of all school expenditures in the United States, the amount is roughly equal to the entire gross domestic product (GDP) of El Salvador or Latvia (2). All 50 states and the District of Columbia maintain pupil transportation programs to facilitate access to education. Over half of all public school students in the United States are eligible for pupil transportation at public expense (3, pp. 20–22). About 25% of students opt to take the school bus each morning and afternoon (4).

This paper establishes an analytical framework for pupil transportation funding and promotes further research into a subject that spans the disciplines of transportation planning, education finance, history, and law. The first section details the history and current structure of pupil transportation in the United States as well as the legal basis for school transportation. The next section presents a three-step framework for analyzing pupil transportation provisions and presents case studies of six states. The last section looks at the implications of current school transportation policy and identifies areas for future research.

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Transportation Research Record: Journal of the Transportation Research Board, No. 2009, Transportation Research Board of the National Academies, Washington, D.C., 2007, pp. 98–103.
DOI: 10.3141/2009-13

OVERVIEW OF PUPIL TRANSPORTATION

There is relatively little scholarly material concerning the development of pupil transportation funding or its present status in the United States. While school consolidation and student transportation have been inherently connected, the subjects are generally given scant attention in educational history. In two histories of American education, there are only a few paragraphs dedicated to school consolidation and a sentence or two on student transportation (5, 6). There have been several articles specifically covering the implications of school consolidation and pupil transportation for rural schools, often raising issues of equity for these programs (7–9). Books on school finance, while mentioning funding for pupil transportation, typically dedicate minimal amounts of material to the subject. In a survey of five books on American education finance, the average book spent one page discussing pupil transportation (10–14). Perhaps because pupil transportation lies at the intersection of several disciplines, it has not received the attention it deserves. The remainder of this section describes the evolution of pupil transportation into its current structure and looks at the legal basis for school transportation.

School Consolidation and Beginnings of Pupil Transportation

To pursue educational opportunities in the classroom, a child must travel from his or her residence to the site of learning. In 19th-century America, most schools consisted of one or two rooms in a building and children typically walked there from the surrounding area. The structure of American education transformed during that period and with it the manner in which pupils traveled to school.

A group of reformers led by Horace Mann championed the establishment of common schools. Espousing the potential of every human being, they demanded the creation of a system of public education open to all members of society for the purpose of equalizing opportunities. Borrowing from the emerging ideas of the industrial revolution, schools also became a focus of analysis for economies of scale and scientific management (15). Reformers viewed small and isolated schools as inefficient both fiscally and educationally and proposed a transformation of American education from scattered one- and two-room schools to centralized institutions. Proponents maintained that replacing numerous smaller schools with common schools provided benefits related to economies of scale, including streamlining school administration and allowing teachers the ability to dedicate themselves to specific grades and subjects. Massachusetts adopted the first school consolidation law in 1838 and the first transportation law in 1869 (16).

A necessary condition for the widespread adoption of consolidated schools was the availability of low-cost transportation methods.

In rural areas—with long distances and no public transport—this meant that school consolidation was possible only with the advent of the automobile and motorized travel. Motorized transport allowed pupils to be conveyed over much longer distances and thus increased the potential economies of scale. Nearly every state passed school consolidation laws and then subsequently adopted school transportation legislation, demonstrating the strong link between school consolidation and pupil transportation (17, pp. 6–21). While scholars debate whether consolidation actually resulted in cost savings (7, 8), the modern American system of education has been shaped by these ideas. The influence of the 19th-century reformers is evidenced by the sharp decline in schools during the 20th century. Between 1929 and 2002, the number of schools in the United States dropped from 248,000 to just 96,000 (18).

Current Structure of Pupil Transportation

In 1940, Noble (16), a Columbia University professor, made comprehensive recommendations about how to transport students that persist to this day. In his principles of pupil transportation, Noble outlined what he argued should be a state's fundamental requirements:

The minimum number of pupils to be transported should be determined by adding the following items, and correcting to avoid duplications: (a) Either the number of pupils living more than two miles from the school or the number of pupils living beyond the fixed distance at which state laws make transportation mandatory; (b) the number of pupils who, although living less than the minimum distance, must be transported because of serious traffic hazards; and (c) the number of pupils who, although living less than the minimum distance, are so subnormal either mentally or physically as to require transportation facilities. (16)

These three criteria—distance, hazards, and disability—still form the basis of pupil transportation policies in most states. In particular, the Individuals with Disabilities Education Act (IDEA) requires states to transport special needs students at public expense.

Education and U.S. Constitution

Reformers like Horace Mann argued that every government should provide education to all children, but case law as established by the Supreme Court has held that there is no fundamental right to an education in the Constitution. Mawdsley (19) cites *San Antonio Independent School District v. Rodriguez* (1973) as evidence from the Supreme Court to support this conclusion. The majority opinion directly states, “Education, of course, is not among the rights afforded explicit protection under our Federal Constitution. Nor do we find any basis for saying it is implicitly so protected” (20).

Then, 15 years later the Supreme Court heard a case specifically on pupil transportation and expanded the *San Antonio Independent School District* holding. *Kadrmas v. Dickinson Public Schools* (1988) further elaborated on the precedent to maintain that pupil transportation is not a constitutional right. The case involved a county in North Dakota that charged students to ride the bus to school, with the appellant arguing that such a law discriminated against families who live a greater distance from schools. The Kadrmas family resided 16 mi from the school, but the Supreme Court held that this requisite fee did not violate the equal protection clause in the 14th Amendment.

In *Kadrmas*, the majority opinion restated the classic argument for school consolidation and the ensuing provision of pupil transporta-

tion. “Since 1947,” the opinion noted, “the legislature has authorized thinly populated school districts to consolidate ‘or reorganize’ themselves into larger districts so that education can be provided more efficiently.” In a consolidated school district, pupil transportation was mandatory and the state would reimburse for a portion of the expenditures. Unconsolidated districts remained unaffected by the transportation requirements. In reference to student transportation, Sandra Day O’Connor stated clearly for the majority: “The Constitution does not require that such service be provided at all, and it is difficult to imagine why choosing to offer the service should entail a constitutional obligation to offer it for free” (21). As there is no fundamental right to an education in the Constitution, there is no right for transportation to school. Each state, therefore, must establish its own laws creating schools and providing pupil transportation.

PUPIL TRANSPORTATION FUNDING: FRAMEWORK FOR ANALYSIS

This section introduces a framework for analyzing state pupil transportation policies and provides six case studies to illustrate institutional practices. Three main questions form the basis of a state's pupil transportation program:

1. Is pupil transportation mandated by the state?
2. What are the eligibility requirements for state aid?
3. What is the formula used for reimbursement?

The following framework for analysis and case studies refer to “regular” students; special-needs students are eligible for transportation in accordance with the Individuals with Disabilities Education Act (IDEA).

Is Pupil Transportation Mandated by States?

No Single Answer

As detailed previously, a state is not required by the U.S. Constitution to provide pupil transportation. Typically, state code will stipulate whether school districts must establish transportation programs or whether they are authorized but not mandated to establish them. California, Texas, and Michigan are three prominent examples of states in which school districts do not have to provide student transportation.

Must Pupil Transportation Be Free?

A subsection of this first component is whether local districts are allowed to charge students for the transportation service or whether the service must be provided completely at public expense. Most often, states that do not require pupil transportation allow districts to levy user fees on students. In *Kadrmas v. Dickinson Public Schools*, the Supreme Court upheld North Dakota's ability to charge a student for transportation, even though she lived 16 mi from the local school.

It is necessary to determine the requirements for mandatory transportation, because, while they are often identical to the eligibility requirements for transportation reimbursement, the populations in these groups can differ. In Ohio, for example, school districts must

transport students in kindergarten through 8th grade who live more than 2 mi from school, but the state will provide funding for all students who live more than 1 mi away (Ohio Revised Code, Section 3327.01, Transportation of Pupils; Ohio Administrative Code, Section 3301-83-01, Calculation of Pupil Transportation Operation Payments).

What Are Eligibility Requirements for State Aid?

In addition to determining whether pupil transportation is mandated and which students are entitled to transportation, a state also establishes eligibility requirements for pupil transportation aid. New Jersey requires transportation for students in preschool through 8th grade who live more than 2 mi from school and for students in 9th through 12th grade who live more than 2.5 mi away. These distances are exactly the same as the eligibility requirements for state aid (New Jersey Administrative Code, Chapter 6A:27, Student Transportation, www.nj.gov/njded/code/current/title6a/chap27.pdf). New York requires transportation for students who attend noncity schools in kindergarten through 8th grade living more than 2 mi away and in 9th through 12th grades living more than 3 mi away (22). This differs from eligibility requirements for state aid, however, because in New York districts are eligible for reimbursement for all students who live more than 1.5 mi away from school (23).

States that do not require pupil transportation often will still set eligibility requirements for state aid. Texas allows but does not require districts to transport pupils. If the districts choose to offer this service, Texas will reimburse them for those students living more than 2 mi from school or who reside in a designated hazardous walking area (24).

What Formula Is Used for Reimbursement?

The states have developed several ways of reimbursing school districts for pupil transportation expenses. Three primary methods are used: (a) actual or approved costs, (b) flat rate per specified unit, and (c) multivariate calculation (25, 26). A state using an actual or approved cost formula determines what categories of pupil transportation expenditures are allowed and then reimburses a certain percentage of those costs. Idaho, for example, reimburses 85% of approved costs (Idaho Statutes, Section 33-1006, Education: Foundation Program—State Aid—Apportionment—Transportation Support Program, www3.state.id.us/cgi-bin/newidst?sctid=330100006.K). A state will often set a limit on the total amount of a reimbursement, usually in reference to average costs in all school districts. The second method reimburses districts on the basis of pupils, route miles, or bus capacity. There can be variations from this relatively straightforward system, as in Montana, where the aid is calculated by the number of route miles but is then adjusted on the basis of bus capacity (27). When reimbursement is based on number of pupils, transportation funding may simply be a part of general state aid rather than money specifically allocated for transportation.

Some States Use Complex Formulas

Other states use more complex formulations, including measures of area density and linear density. Area density takes the number of transported students and divides that by the square-mile area of the district. Linear density is found by dividing the number of transported students by miles of bus routes. States like Texas reimburse different

amounts per mile on the basis of linear density. Texas provides the following example of calculating linear density, multiplying daily ridership by the total number of school days and then dividing by the annual mileage: Average daily ridership of 225 and annual mileage of 52,122: $(225 \times 180) \div 52,122 = 0.777$. A school district with a linear density of 0.777 would receive \$0.87/mi. The lowest per-mile allotment in Texas is \$0.68 and the highest is \$1.43, the amounts rising with linear density. Districts are reimbursed for special-needs students at a uniform rate of \$1.08/mi (24). Finally, states rarely cover all costs of pupil transportation and in some cases provide only minimal reimbursement for these expenses.

What Is State Aid as Percentage of Total Pupil Transportation Expenditures?

Because states rarely fund 100% of a school district's transportation expenditures, it is therefore important to determine what percentage of expenses is covered by the state. Of the components in the framework for analysis, this is generally the most difficult one to ascertain. The U.S. Census reports pupil transportation expenditures by state, but information on the amount of state aid is often sparse. State aid as a percentage of transportation expenditures also varies between districts, as each district spends a different amount of money on pupil transportation and receives a different amount from the state. In Florida, where the state level information is readily available, 56% of pupil transportation expenditures are covered by the state (28). The percentage is important because the local school district must allocate funding for the remaining expenses. For school districts facing escalating costs, including rising gasoline prices, transportation expenditures can pose significant constraints to the budget.

STATE CASE STUDIES

The following series of case studies use the three-question framework to analyze the pupil transportation policies of selected states. The states were chosen because they represent a wide range of institutional practices and provide insights into the similarities and differences in pupil transportation programs in the United States.

Alabama

Alabama adheres to a state pupil transportation program almost identical to the one advocated by Noble more than 60 years ago (16). School districts must transport students who live more than 2 mi from school. Pupils living closer than this distance limit but with a hazardous walking route can petition the state for a waiver. The 2-mi eligibility for state aid is the same distance requirement as for the mandatory transported population.

The reimbursement formula used by Alabama includes a measure of linear density while also considering the average costs incurred by districts around the state. Alabama state code stipulates, "The cost per loaded mile and cost per student day for each local board is determined by dividing the current year operating cost by the total number of loaded miles traveled for the year and the number of student days of transportation for the year, respectively" (29). Alabama will reimburse the cost per loaded mile and cost per student day up to one standard deviation above the statewide average. Districts in Alabama spent just over \$200 million on pupil transportation in 2003–2004 (1).

New York

New York maintains an extensive and complex pupil transportation system, spending more money than any other state conveying students to school, a sum of over \$2 billion. Districts are required to transport pupils of noncity schools in kindergarten through 8th grade who live more than 2 mi away and in 9th through 12th grades who live more than 3 mi away. City schools are not mandated to transport pupils but if they do so must provide transportation on an “equitable basis and within similar mileage limits to children attending both public and nonpublic schools” (22). Eligibility requirements for reimbursement are much less strict than the previously cited mandated distances at a figure of 1.5 mi.

The reimbursement formula for New York is based on a district’s approved costs, which is then multiplied by the sum of a sharing ratio and sparsity factor (23). The latter two variables help adjust for differences in sparsity of population and wealth among the districts. The sparsity factor ranges from 0 to 6.5% and is added to the sharing ratio. The sharing ratio cannot exceed 90% or fall below 6.5% (30). Dividing the 2005–2006 figure for New York state aid by the 2003–2004 total expenditures reported by the U.S. Census results in a 54.7% state aid share of expenditures (1, 23).

Ohio

Like New York, Ohio requires pupil transportation for one population of pupils but provides state aid reimbursement for a larger share of pupils. Ohio mandates that students in kindergarten through 8th grade living more than 2 mi from school are transported at public expense. Reimbursement is provided to districts for all students living at a distance greater than 1 mi from school. The reimbursement formula is a linear regression equation and has as its two independent variables the number of daily bus miles per student and the transported student percentage (Ohio Revised Code, Section 3317.022: Calculation of District’s Base Cost Funding). The formula for fiscal year 1998 was cost per student = $51.79027 + (139.62626 \times \text{daily bus miles per student}) + (116.25573 \times \text{transported student percentage})$. State aid as a percentage of transportation expenditures in Ohio is about 60% (31).

Idaho

Promoting pupil transportation as a method of equalizing access to education, state code in Idaho stipulates, “To afford more equal opportunity for public school attendance, the board of trustees of each district, including specially chartered school districts, shall, where practicable, provide transportation for the public school pupils within the district” (Idaho Statutes, Section 33-1501. Transportation of Pupils: Transportation Authorized. www3.state.id.us/cgi-bin/newidst?scid=330150001.K). State-mandated transportation, however, applies only to students who live more than 1.5 mi from school. Students living closer, if presented with dangerous walking conditions, can petition for transportation at public expense. Idaho provides state aid for pupil transportation by reimbursing 85% of approved costs. Their formula includes an efficiency factor that limits funding to “103% of the statewide average reimbursable cost per mile or the state average reimbursable cost per student rider, whichever is more advantageous to the school district” (Idaho Statutes, Section 33-1006, Education: Foundation Program—State Aid—Apportionment—Transportation Support Program, www3.state.id.us/cgi-bin/newidst?scid=330100006.K). State aid provides for 85% of approved costs, but nonapproved expenditures must be paid for by

the school district. Pupil transportation expenditures in 2003–2004 totaled just over \$70 million (1).

Texas

Texas finances pupil transportation in a manner similar to Alabama’s, except that in Texas school districts are not required to transport students. This major distinction at least partially accounts for the difference in percentage pupils transported at public expense; the figure is 24.6% for Texas and 48.9% for Alabama (3). Texas provides transportation reimbursements to districts for students who live more than 2 mi from school or within that distance if the area is a “designated hazardous area” (24). The state employs a linear-density formula to establish funding levels, with the per-mile allotment increasing with linear density. Funding for hazard busing cannot compose more than 10% of the total reimbursement (24). Several school districts throughout the state have recently begun charging for pupil transportation.

California

Transporting 14.3% of students at public expense, the lowest proportion of any state in the nation, California does not require pupil transportation (3; California Education Code, Section 39800–39809.5, caselaw.lp.findlaw.com/cacodes/edc.html). About 15% of school districts in the state have completely eliminated pupil transportation (32). State code authorizing districts to transport students reflects the limited state involvement: “The governing board of any school district may provide for the transportation of pupils to and from school whenever in the judgment of the board the transportation is advisable and good reasons exist therefor” (California Education Code, Section 39800–39809.5, caselaw.lp.findlaw.com/cacodes/edc.html). Because of budget constraints and the passage of Proposition 13 in 1978, state student transportation aid to districts has essentially been frozen (32). Redlands Unified School District received \$700,000 for transportation costs in 1989 and the same level in 2005, despite rapidly increasing expenditures (33). State aid for pupil transportation is “based on the allowance received in the prior fiscal year” (34). To assist in the provision of pupil transportation, California allows school districts to charge fees for those wishing to ride the school bus. The fee for 2005 was a maximum of \$6.38 for a daily round trip (35).

Table 1 summarizes four variables for each of the state student transportation programs reviewed above.

POLICY IMPLICATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

Each component of the analysis framework contains multiple policy implications and possibilities for future research; for example, whether pupil transportation is mandated and whether the eligibility requirements for funding tend to have macrolevel effects like the number of students transported at public expense and the total amount of funding for pupil transportation. The formula reimbursement used and state aid as a percentage of transportation expenditures contain direct consequences for each district in terms of distribution of money throughout the state and how much an individual district must fund pupil transportation. Depending on its policy goals and financial priorities, a state could alter each of the components in the framework.

TABLE 1 Summary of State Case Studies

	Mandated Transportation	Students Eligible for Mandated Transportation	Eligibility Requirements for State Aid	Reimbursement Formula
Alabama	Yes	All students > 2 mi or in hazardous walking area	All students > 2 mi or in hazardous walking area	Linear density
New York	Yes	Non-city schools, K–8 > 2 mi, 9–12 > 3 mi	All students > 1.5 mi	Approved costs
Ohio	Yes	K–8 > 2 mi	All students > 1 mi	Multivariate equation
Idaho	Yes	All students > 1.5 mi or in hazardous walking area	All students > 1.5 mi or in hazardous walking area	Approved costs
Texas	No	N/A	All students > 2 mi or in hazardous walking area	Linear density
California	No	N/A	N/A	Based on prior year's allocation

Walking Distance

Rhoulac (36) examined mode choice for students between bus and car, the “classic choice in school transportation.” The study analyzed the “transportation mode choice for students living beyond walking distance of school.” Using data from North Carolina, the study set the walking distance to school equal to the state’s mandated pupil transportation distance requirement of 1.5 mi. If the study were to be replicated in other states, this distance would either have to be changed or else potentially have to include some students ineligible for transportation at public expense. Studies of school transportation mode choice should expand to consider state requirements for pupil transportation. State policies for pupil transportation funding could adjust to reflect the goal stated by Rhoulac to “change modal choices to prompt a decrease in this recurring congestion” (36). In addition to addressing morning congestion caused by children’s arriving at school by automobile, methods of funding that favor certain modes of travel could affect levels of physical activity in children.

There is also potential for researching the point at which distance makes walking to school infeasible. It is likely that many students live too far from school to walk but not far enough to qualify for transportation at public expense. Many planners argue that $\frac{1}{4}$ mi is the distance that most Americans are willing to walk to a destination (37, pp. 198–199). Even states with relatively low walking distance requirements are set to a mile or more. For a substantial percentage of students living at these distances, private motorized transportation is the only feasible mode choice.

School Siting

School siting, which has traditionally been the concern only of school facility planners, has recently received attention from the fields of public health and planning. Public health officials see school siting as a policy tool that could be used to increase the number of children who walk to school (38). Planners are concerned with the issue of school sprawl and see neighborhood schools as a community design tool (39). Because costs are an important consideration in school siting, it is critical for planners to understand how a state’s pupil transportation policies affect costs and therefore location.

Almost all states assume students within a mile radius will walk to school, and often the distances are much greater. A school sited in an area that is not conducive to walking and bicycling will pose dangers to students, cause school districts to transport a greater

number of pupils because of hazard busing, burden parents with providing rides in automobiles, or a result in a combination of the three scenarios. It is conjectured that most school siting decisions do not account for pupil funding requirements and policies, and this hypothesis should be examined with further research.

Nationally, pupil transportation funding accounts for 4.2% of all school expenditures. This percentage varies by district and even by school, in part on the basis of a school’s location. As part of the school siting process, a state’s pupil transportation funding system should also be considered as a potential to lower expenditures. Historically, pupil transportation has been viewed as a method of improving financial efficiencies, but if transportation funding is not integrated into school siting, then these efficiencies are less likely to be realized.

Safety

Pupil transportation funding determines whether a student is eligible for transportation at public expense. Eligibility for such transportation directly affects mode choices, most often resulting in the possibility of riding the school bus. The funding of pupil transportation influences student safety because each mode possesses its own relative risk. A 2002 TRB special report found that school buses are involved in only 2% of all student transportation fatalities (40). Depending on a state’s pupil transportation funding system, these state policies could influence a state’s overall risk concerning school travel.

The TRB report specifically identified a state’s minimum walking distance as a way of altering school travel risk. The authors concluded, “Because the various travel modes are associated with different safety risks, any shift in modes—e.g., from school buses to walking, bicycling, or riding in a passenger vehicle—that results from changing the minimum walking distance will have an effect on school travel safety” (40). Changing a state’s walking distance from 1 to 2 mi would potentially increase the overall risk to student travel, while a reduction in walking distance could produce the opposite result and lessen risk.

CONCLUSION

This paper provides a foundation for researching pupil transportation funding, offering a comprehensive contemporary introduction into a subject that affects millions of children and their access to education but receives minimal attention. Gathering existing written material

into one location and establishing a framework for analysis will facilitate examinations of the policy implications of pupil transportation and assist future research. School transportation is one of the primary forms of travel for children. Methods of funding have the potential to affect mode choice, congestion, physical health, and safety; these comprise a series of implications that warrants further study into the subject.

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The Transportation Safety Management Committee sponsored publication of this paper.