

# COORDINATION OF TRANSIT AND SCHOOL BUSING IN IOWA

CTRE Project 03-154

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Final Report • December 2003

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<p>The 2003 Iowa General Assembly asked the Iowa Department of Transportation (Iowa DOT) to conduct a study of Iowa public policy regarding coordination of public transit services and school transportation. This report describes the efficiencies that may be obtained by coordinating transit management and maintenance systems in the areas of school transportation, public transit, and other forms of public transportation. As requested by the Iowa DOT, the Center for Transportation Research and Education (CTRE) at Iowa State University studied these issues and prepared this report.</p> <p>CTRE conducted a survey of the 35 transit agencies in Iowa and school districts served by public transit agencies to determine the extent and nature of coordination. Twenty-three transit agencies coordinate in some manner with over 45 school districts. The nature of the coordination varies with the urban or rural nature of the area.</p> <p>The results of the study show that Iowa policy is supportive of coordination activities, coordination occurs when there is clear benefit to both parties, coordination can result in efficiencies and cost savings, and the safety records of school bus and public transit in Iowa are both excellent and comparable.</p>					
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## **EXECUTIVE SUMMARY**

The 2003 Iowa General Assembly asked the Iowa Department of Transportation (Iowa DOT) to conduct a study of Iowa public policy regarding coordination of public transit services and school transportation. This report describes the efficiencies that may be obtained by coordinating transit management and maintenance systems in the areas of school transportation, public transit, and other forms of public transportation. As requested by the Iowa DOT, the Center for Transportation Research and Education (CTRE) at Iowa State University studied these issues and prepared this report.

This report contains background information on Iowa's transit systems, school bus systems, and instances of coordination between them. The types of vehicles used, driver qualifications, and relative safety statistics are discussed. The section on findings summarizes the instances of coordination and provides several case studies.

CTRE conducted a survey of the 35 transit agencies in Iowa and school districts served by public transit agencies to determine the extent and nature of coordination. Twenty-three transit agencies coordinate in some manner with over 45 school districts. The nature of the coordination varies with the urban or rural nature of the area.

### **The Nature of Savings that Can Be Achieved through Coordination**

Savings can occur through coordination when one agency possesses resources that can be used by another at lower cost. The resource must be available at the right time of day. Three types of resources are identified in this report:

- Capacity
- Specialized fleet equipped to serve passengers with disabilities
- Infrastructure

Transportation capacity is a measure of available seating in a vehicle. Since transit ridership in all cities experiences sharp, directional peaks, unused capacity is available in the off-peak direction. With planning and cooperation, this capacity can sometimes be used for school transportation depending on the location of schools and students. Des Moines is a very successful example of this type of coordination.

In order to control transportation costs, many school districts only provide school bus service to students living outside a two- or three-mile boundary. When public transit service is available inside this boundary area, arrangements have developed in response to public demand to provide school transportation on public transit buses. Sometimes, extra transit buses are needed to carry the student loads, but the net public cost is less than providing school transportation by the school district.

In rural areas, buses are radio dispatched and riders are usually flexible about pick-up times. Therefore, buses can deviate to serve special needs. Transit buses in regional service can pick up school riders that live in locations that are difficult to serve efficiently with yellow school buses

that operate on tight schedules. This form of coordination uses available transit capacity and allows the school service to operate at maximum efficiency.

A specialized vehicle fleet is another resource that can be shared. Since transit vehicles must be lift-equipped to accommodate disabled riders, school districts can contract with public transit in urban or rural areas to transport special needs students to school. This saves the school district the cost of a specialized vehicle.

A third resource that can be shared is infrastructure, e.g., fueling stations, fuel and tire purchases, vehicle maintenance, and administration. Although it is more common for transit systems to enter into this type of coordination with city or county government, there are some successful cases of transit-school coordination using this model.

### **Examples of Coordination**

Examples of students riding public transit may be found in eight cities. The Des Moines Metropolitan Transit Authority carries more than 2,100 students on transit buses (4,200 daily rides). This program has been in place for over 10 years. Similarly, Five Seasons Transportation and Parking in Cedar Rapids carries students inside the two-mile boundary; Iowa City Transit operates two school loops for the same purpose. The Council Bluffs Special Transit Service transports disabled students using its lift-equipped vehicles. Marshalltown Municipal Transit, Mason City Transit, Ottumwa Transit Authority, and Mid-Iowa Development Association/Dodger Area Rapid Transit in Fort Dodge all have coordination programs.

In Ames, the situation is reversed. CyRide contracts for three school buses and drivers to provide some peak transit service because CyRide experiences a demand peak around 9:00 a.m., just after the school routes are completed. This saves CyRide the need to purchase three buses and hire three extra drivers.

In rural areas, nearly every regional transit system carries students with disabilities for at least one school district using lift-equipped small buses that they already operate for transit service. This relieves the school districts of buying special-purpose vehicles for a small number of students. Another form of coordination in rural areas is the use of small transit buses to carry school children that live in locations hard to serve efficiently with larger school buses. The regions' transit buses provide a subscription service for these students, typically saving the school district the cost of another bus and driver. Eleven transit agencies engage in this type of coordination. Two transit agencies have a contractual relationship with school districts to carry Head Start students.

The clear message is that coordination occurs when circumstances offer a win-win opportunity and managers are willing to work together. Typically this occurs when a public transit agency has capacity or a small, lift-equipped vehicle fleet that meets a school transportation need, saving the school district at least one vehicle and driver. In the case of CyRide in Ames, the private school bus operator had available vehicles and drivers needed to handle a late-morning peak. Both transit and school bus managers are very aware of their cost of operation. When either faces a service requirement that would require expansion of fleet or staff, good managers will look to the other provider to see if there is a cost-effective solution.

## **Legal and Regulatory Environment**

Economic forces will tend to lead to coordination when it is mutually cost effective, but the legal and regulatory environment must be conducive. Iowa actively promotes coordination. In 1984, the Legislature requested a feasibility study and pilot projects to test the coordination of school and public transportation. In 1989, the Legislature mandated that each school district form a school economy task force that included a public transit agency representative. In 1999, the Legislature revised the Iowa Code to clarify that school districts can contract not only with urban transit systems but also with regional (rural) transit systems.

## **Barriers to Coordination**

Despite the positive legislative environment, local barriers to more coordination noted by transit operators include opposition by some private businesses that provide school transportation under contract to school districts; desire for close control of school transportation because of unanticipated schedule variations like weather-related early dismissals; a public perception that yellow school buses are safer than transit buses; and the need for more staff time to plan coordinated services. There can be operational difficulties involved in coordinating transit with schools, such as having to accommodate an occasional early dismissal, which may conflict with the transit systems' other mid-day commitments such as senior meal site transportation. An early closing means that the transit operator has an obligation to serve two groups at once. A good management plan with back-up vehicles and drivers is a must.

The greatest barrier to coordination in the eyes of the public is the perceived relative safety of school buses and transit vehicles. Safety data indicate that the safety records of both types of services are excellent, but the issue is clouded by the many combinations of vehicle types and street operating environments. School districts operate sedans, vans, sport utility vehicles, and four types of school buses. Urban and regional transit agencies operate at least three classes of transit vehicles in a wide variety of street environments. It is important, therefore, to consider the applicable vehicle safety standards and operating environments when evaluating safety issues. Similarly, driver qualifications are different but high for both transit and school buses. The body of the report discusses safety issues, driver qualifications, and the classes of vehicles used.

## **Findings and Recommendations**

This report finds that 23 transit agencies currently coordinate with 45 school districts at a net public savings of over \$1 million. Coordination occurs when these conditions are present:

- There is a need.
- Unused capacity is available at the right time or a specialized fleet is available.
- Each coordinating agency either saves money or gains revenue.
- Managers are willing to work together to solve problems.
- There are no legal or regulatory barriers.
- Both the reality and perception of student safety can be assured.

Public policy in Iowa is supportive of coordination, and that has paved the way for the observed cases.

# **1. INTRODUCTION**

## **Purpose and Objective**

The 2003 Iowa General Assembly asked the Iowa Department of Transportation (Iowa DOT) to conduct a study of Iowa public policy regarding coordination of public transit services and school transportation. The legislature's request, contained in the Transportation Appropriation Bill, required "a report pertaining to the efficiencies that may be gained by the coordination of transit management and maintenance systems in the areas of school transportation, public transit, and other forms of public transportation."

This report describes such efficiencies. As requested by the Iowa DOT, the Center for Transportation Research and Education (CTRE) at Iowa State University studied these issues and prepared this report. The purpose of this report is to document the coordination activities that are taking place in Iowa between the school districts and transit agencies. Furthermore, the authors estimate some of the benefits derived from coordinating services.

The objectives of this study include the following:

- Examine the legal basis for such coordination in Iowa
- Inventory the types of coordination currently taking place around the state
- Highlight some of the different coordination models with a discussion of what each party feels are the benefits of the coordination as well as obstacles that have been encountered

## **Background**

Coordination of services existed even prior to public ownership of transit. Schools contracted with privately owned urban bus companies for decades using special provisions in the Iowa Code. Coordination declined during the late 1950s and 1960s with cutbacks in services by urban bus companies. When Iowa's urban transit systems came under public ownership in the 1960s and 1970s, most of these arrangements that still existed were continued by the public transit systems. When regional transit systems were developed during the 1970s, many of them started working with the school districts in their service areas.

The idea of transit and school transportation coordination has been of interest to the Iowa Legislature for some time. In 1984, the legislature rewrote the transportation coordination mandate, Chapter 601J of the Iowa Code (now Chapter 324A). The Legislature exempted public schools from the mandate that all publicly funded passenger transportation be coordinated or consolidated with urban or regional public transportation systems but at the same time requested a feasibility study of such coordination and requested pilot transit and school coordination projects in both urban and rural settings.

Legislative interest in transit and school coordination continued. The 1989 Legislature mandated that each school district form a school economy task force and required that each task force include a representative of the public transit system serving the area.

In 1999, the Legislature revisited the transit and school transportation coordination issue with code changes clarifying that schools can contract with regional transit systems as well as urban transit systems for student transportation. The legislation also asked the Iowa DOT to establish standards for any contracted student transportation by regional transit systems.

Meanwhile, throughout the state many school districts and transit systems continued to enter various types of coordination arrangements that benefit all parties involved.

### **Coordination Defined**

Coordinating transportation means doing better (obtaining more results, like trips) with existing resources by working together with persons from different agencies and backgrounds. Coordination helps to address transportation problems such as duplication of effort and low transportation resource efficiency. “Coordination is the best way to stretch scarce resources and improve mobility for everyone” (Ohio DOT 1997).

Coordinating transportation systems is best understood as a process in which two or more organizations interact to jointly accomplish their transportation objectives. Like many other shared processes, coordination involves managing. A broad perspective is important to success: Effective coordination requires a focus on the entire community or maybe even on multiple communities. A willingness to be open-minded about changing long-standing operating procedures is needed (Burkhart 2003).

Coordination is a technique for managing resources. Fundamentally, coordination is about shared responsibility among organizations that are working together. For coordination to succeed, the organizations involved must have shared objectives (like increasing mobility for persons who lack mobility) and a real level of shared respect. After these preconditions are met, sharing responsibility, management, and funding can occur.

### **Why Coordinate Services?**

The purpose of coordination between school transportation and public transportation is to use the taxpayer dollar more effectively. School districts and public transportation providers are faced with growing demand for services and limited resources. School transportation providers and public transportation agencies are looking beyond the normal resources available in order to fill community needs.

As stated in the executive summary, savings can occur through coordination when any of three conditions are present:

- Available capacity
- Specialized fleet equipped to serve passengers with disabilities
- Infrastructure resources (fueling facilities, maintenance facilities, administrative structure)

The benefits of coordination include the following:

- Operating cost savings through using available capacity in public transit for school service or vice versa
- Capital savings through not having to expand the fleet
- Savings in infrastructure investment or administration through dual use of facilities or people
- Increased communication among agencies, possibly leading to further coordination opportunities
- Increased level of service

As evidence of potential, over \$1 million in cost savings have been identified statewide as a result of present coordination activities.

A specific fleet-related benefit of coordination is maximizing the use of vehicles accessible to disabled riders. Public transit vehicles are equipped with lifts and wheel chair tie-downs for disabled riders, in part due to the Americans with Disabilities Act (ADA). This is a valuable resource for school districts that may only need such vehicles for a few students.

### **Description of Transit Service in Iowa**

Transit in Iowa is comprised of 35 agencies providing transportation to all 99 counties in the state. The agencies are categorized by the areas they serve in terms of population. The Iowa DOT categorizes transit systems as large urban, small urban, and regional. Figure 1 shows the service area covered by each of the transit agencies. The large numbers on the map indicate the multi-county regions served by the regional transit operators. Tables 1–5 summarize the services provided by transit agencies.

The large urban and small urban systems operate fixed-route transit for the general public. Vehicles travel a published route and schedule, stopping at designated bus stops. Regional transit agencies and some large and small urban transit agencies operate demand-responsive service. Demand-responsive service is dispatched—the driver picks up designated people at a designated address rather than running a published route. Demand-responsive service is generally pre-arranged—regular riders schedule in advance for service.

In total, for Fiscal Year 2002, Iowa transit agencies operated a fleet of 1,267 vehicles, operating 26,194,368 miles. They carried 22,500,738 annual passenger trips at a cost of \$66,215,979.



# Iowa Passenger Transportation Services

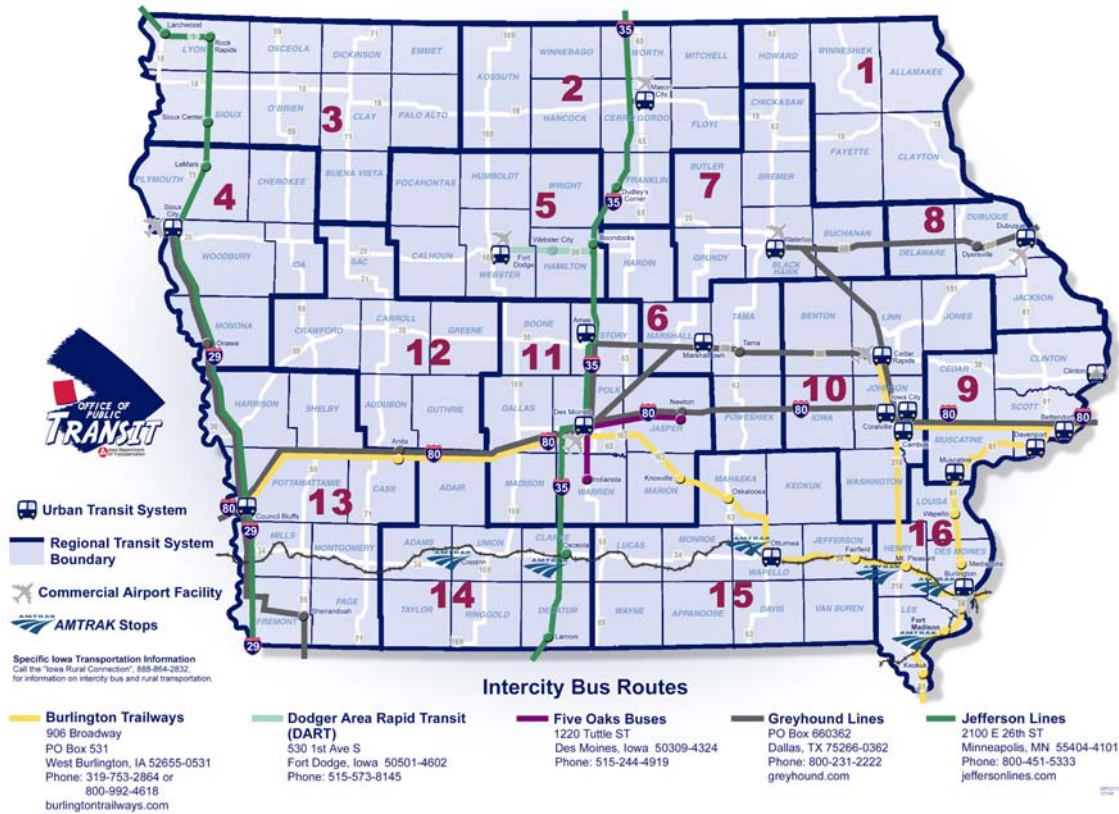


Figure 1. Iowa transit agency service map (courtesy of Iowa DOT)

Table 1. Large urban transit systems

Agency	Ridership	Miles	Vehicles	Drivers*
Ames Transit Agency (CyRide)	3,418,078	975,070	59	107
Bettendorf Transit	139,392	271,121	7	8
Cedar Rapids Five Seasons Transportation and Parking	1,194,055	1,406,912	55	47
Coralville Transit	399,553	201,526	9	15
Council Bluffs Special Transit Service	157,292	334,359	8	0
Davenport CitiBus	958,661	808,916	19	36
Des Moines Metropolitan Transit Authority (MTA)	4,029,434	3,028,980	138	154
Dubuque Keyline Transit	365,116	572,354	27	22
Iowa City Transit	1,449,129	747,161	29	37
Sioux City Transit	1,220,945	1,135,532	37	29
University of Iowa Cambus	3,353,065	680,641	32	120
Waterloo Black Hawk County Metro Transit Authority	490,510	820,172	29	32
<b>Large urban totals</b>	<b>17,175,230</b>	<b>10,982,744</b>	<b>449</b>	<b>607</b>

\* Includes part-time drivers.

**Table 2. Small urban transit systems**

Agency	Ridership	Miles	Vehicles	Drivers*
Burlington Urban Service	167,465	181,118	11	14
Clinton Municipal Transit	288,021	327,780	13	20
Fort Dodge Dodger Area Rapid Transit	228,824	318,322	18	25
Marshalltown Municipal Transit (MMT)	134,784	134,446	9	9
Mason City Transit	182,161	330,563	15	16
Muscatine City Transit	144,990	243,881	10	16
Ottumwa Transit Authority (OTA)	364,843	248,287	9	12
<b>Small urban totals</b>	<b>1,511,088</b>	<b>1,784,397</b>	<b>85</b>	<b>112</b>

\*Includes part-time drivers.

**Table 3. Regional transit systems**

Agency	Ridership	Miles	Vehicles	Drivers*	Counties served
Region 1: Northeast Iowa Community Action (NEICA)	246,340	857,537	44	39	5
Region 2: North Iowa Regional Transit System	416,911	1,292,671	82	0**	8
Region 3: Regional Transit Authority (RIDES)	425,289	1,215,282	70	66	9
Region 4: Siouxland Regional Transit System (SRTS)	202,776	912,705	44	50	5
Region 5: Mid-Iowa Development Association (MIDAS)	303,759	542,635	43	29	6
Region 6: Region Six Planning Commission (Peoplerides)	64,169	379,799	18	19	4
Region 7: Iowa Northland Regional Transit Commission (RTC)	219,939	781,156	23	15	6
Region 8: Delaware, Dubuque, and Jackson County Regional Transit Authority	139,466	648,761	32	26	3
Region 9: River Bend Transit (RBT)	142,884	800,017	60	55	4
Region 10: East Central Iowa Transit (ECIT)	248,524	1,027,670	54	54	6
Region 11: Heart of Iowa Regional Transit Agency (HIRTA)	378,969	1,376,146	83	0**	8
Region 12: Western Iowa Transit System (WITS)	258,259	1,055,306	52	43	6
Region 13: Southwest Iowa Transit Agency (SWITA)	260,997	1,049,442	34	60	8
Region 14: Area XIV on Aging, Southern Iowa Trolley (SIT)	178,332	417,158	36	28	7
Region 15: 10-15 Regional Transit Agency	218,378	724,489	39	36	10
Region 16: Southeast Iowa Transit Authority	109,428	346,453	19	19	4
<b>Regional totals</b>	<b>3,814,420</b>	<b>13,427,227</b>	<b>733</b>	<b>539</b>	<b>99</b>

\*Includes part-time drivers.

\*\*Vehicles operated by contracted subproviders.

**Table 4. Statewide transit totals**

Agency	Ridership	Miles	Vehicles	Drivers
Large urban transit totals	17,175,230	10,982,744	449	607
Small urban transit totals	1,511,088	1,784,397	85	112
Regional transit totals	3,814,420	13,427,227	733	539
<b>Grand total</b>	<b>22,500,738</b>	<b>26,194,368</b>	<b>1,267</b>	<b>1,258</b>

**Table 5. Operating expenditures for Iowa transit agencies (FY 2002)**

Agency	FY 2002 Operating Expenditures	Totals
Ames (CyRide)	\$4,200,402	
Bettendorf	\$615,039	
Cedar Rapids Five Seasons	\$5,636,944	
Coralville	\$1,077,604	
Council Bluffs	\$843,861	
Davenport CitiBus	\$3,667,400	
Des Moines MTA	\$11,847,912	
Dubuque	\$1,939,852	
Iowa City	\$3,837,339	
Sioux City	\$3,205,207	
University of Iowa Cambus	\$1,854,935	
Waterloo Black Hawk County	\$2,837,889	
<b>Large urban subtotal</b>		\$41,564,384
Burlington	\$555,327	
Clinton	\$967,429	
Fort Dodge	\$723,280	
Marshalltown	\$441,060	
Mason City	\$443,151	
Muscatine	\$551,596	
Ottumwa	\$557,117	
<b>Small urban subtotal</b>		\$4,238,960
R1: NEICA	\$1,257,460	
R2: North Iowa	\$1,508,088	
R3: RIDES	\$1,836,731	
R4: SRTS	\$1,123,717	
R5: MIDAS	\$998,387	
R6: Peoplerides	\$568,083	
R7: Iowa Northland	\$1,635,600	
R8: Delaware, Dubuque, Jackson County	\$748,179	
R9: RBT	\$1,079,486	
R10: ECIT	\$1,783,979	
R11: HIRTA	\$2,286,892	
R12: WITS	\$2,286,892	
R13: SWITA	\$1,129,061	
R14: SIT	\$766,552	
R15: 10-15	\$930,626	
R16: Southeast Iowa	\$472,902	
<b>Regional subtotal</b>		\$20,412,635
<b>Grand total</b>		<b>\$66,215,979</b>

## Description of School Bus Service in Iowa

The 371 school districts in Iowa provide school transportation by operating service directly, contracting with a private school bus operator, contracting with a public transit provider, or by combining the options. In the 2001–2002 school year, 7,184 school buses operated over 42 million miles carrying 242,000 pupils. This represents 49.5% of public school enrollment. The cost of school bus transportation was \$87.5 million.

All school bus service is prearranged—the driver picks up a known list of pupils at prearranged locations. If a pupil leaves or a new one enrolls, the school bus “route” is changed to accommodate that student. School start and end times are usually staggered so that one vehicle can pick up grade school, middle school, and high school students on different runs. Staggered start times and the ability to optimize routes because the riders are known makes school bus service very efficient on a cost per pupil basis. The cost per pupil in 2001–2002 was \$371 or about \$1.03 per trip (this assumes 180 school days and two trips per day).

Figure 2 shows the 371 school districts in Iowa. The map is coded to show each district by enrollment. Table 6 (data from the Iowa Department of Education annual report) indicates the number of vehicles, routes, and drivers costs associated with public school transportation in Iowa.

**Table 6. Public school transportation in Iowa**

	<b>2001–2002 data</b>
<b>Number of vehicles</b>	
Buses	5,685
Others	1,499
Total	7,184
<b>Number of school bus drivers</b>	9,354
<b>Number of school bus routes</b>	
Regular	4,188
Kindergarten	180
Total	4,368
<b>Miles traveled by school bus</b>	
Regular route	40,464,658
Kindergarten	651,774
Miscellaneous route	1,160,035
Total	42,276,467
<b>Transportation costs</b>	
School bus	\$86,824,206
Parent	\$57,979
Common carrier	\$680,795
Total	\$87,562,981
<b>Average cost per pupil</b>	
School bus (district contract)	\$371
Average cost per mile	\$1.99

# 2003-2004 Iowa School Districts

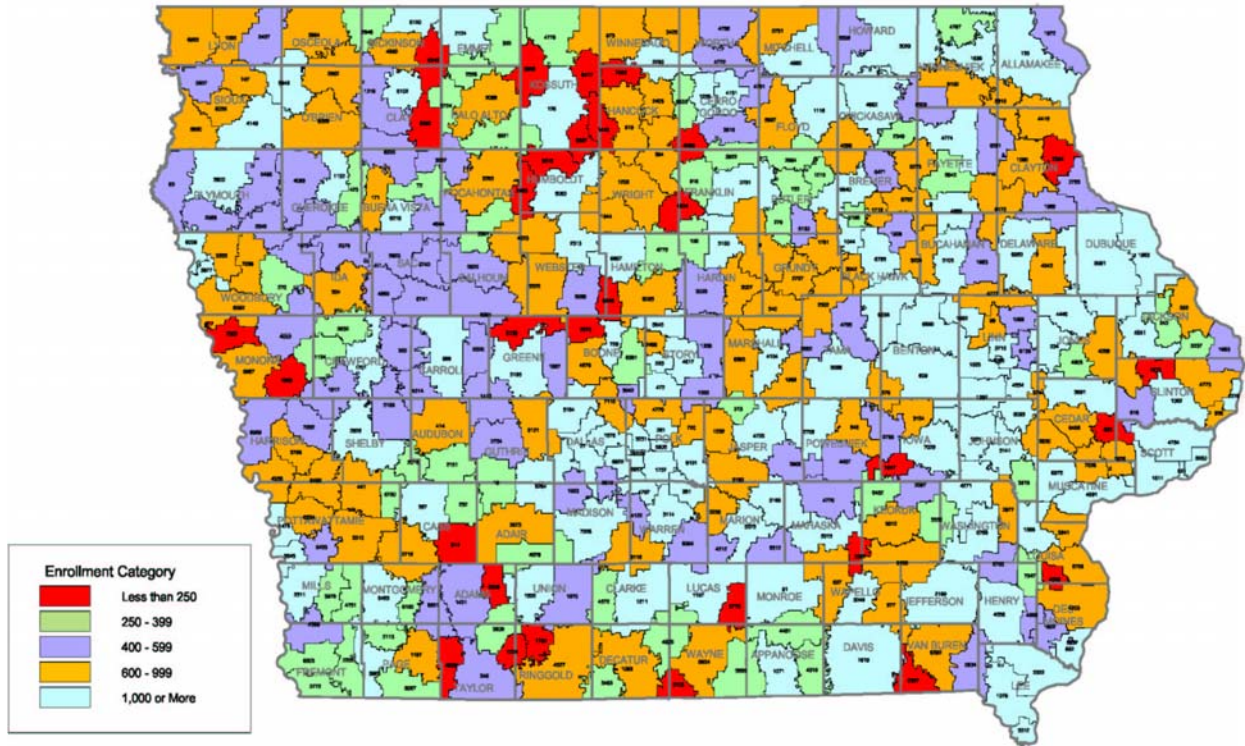


Figure 2. Iowa school districts

## **2. TRANSPORTATION COORDINATION IN IOWA**

For this report, we surveyed all 35 transit agencies in Iowa to determine the extent of service coordination in their area and the climate for further service coordination between the transit agencies and the school districts. The transit agencies were asked ten questions about what type of transportation service coordination, if any, exists in their area, what types of services they would be willing to coordinate, and whether they perceive any barriers or challenges in service coordination. The agencies that are coordinating services were also asked if the coordination efforts have been successful.

Thirty transit systems responded to the survey, with twenty-three reporting that they do some type of formal coordination with at least one school system in their service area. Seventeen of the transit agencies reported that their coordination efforts were either very successful or successful. Six agencies reported “neutral” in terms of benefits to the transit agency, but stated that they believed that the school districts were saving money. The section below describes the examples of service coordination that is taking place in Iowa. The answers to the survey questions are reported in Appendix A.

Twenty-three cases of coordination between school bus and public transit in Iowa were found, involving 45 of the 371 school districts. Examples of coordination in large urban, small urban, and regional environments are described below. Following the general description, select case studies are examined in more detail.

### **Examples of School Bus and Transit Coordination in Iowa**

#### *Large Urban Transit Systems*

- The Council Bluffs Special Transit Service transports some disabled students to school using lift-equipped demand-response vehicles because not all Council Bluffs School System vehicles are lift equipped.
- The Des Moines Metropolitan Transit Authority (MTA) has operated bus service for the Des Moines School District to two high schools and seven middle schools for 10 years, carrying about 2,100 students (4,200 rides) daily. The school district buys MTA passes for the school riders. The program was initiated by the school district to provide an equal quality school bus service at reduced cost. This program provides great transportation flexibility for pupils, and initial concerns about safety did not materialize.
- Five Seasons Transportation and Parking in Cedar Rapids provides school transportation for 650 students (1,300 rides) for the Cedar Rapids Community School District and the Catholic Board of Education within the two-mile boundary. Budget constraints and student safety prompted the coordination effort.
- CyRide in Ames contracts with the private school bus operator to use three school buses and their drivers in transit service at the completion of their school runs. A university student rider peak overloads the CyRide buses for about an hour, so this is a very cost-effective solution. Lack of capital funds to purchase more transit buses led to the coordinated effort. Since university student fees contribute to CyRide, it is essential that

CyRide provides enough capacity to meet the university rider demand, but within budget limits.

- Iowa City Transit runs an eastside and a westside loop route that serves 80 students (160 rides) who are not eligible to ride the school bus because they live inside the two-mile boundary limit. The service originated due to parents' complaints to the school district. The school district did not have the funds to provide expanded school bus service.
- Bettendorf Transit designs transit routes so they pass schools. Some students ride the transit buses, but there is no formal program. Bettendorf Transit participates in a joint fuel-purchasing contract with the school district.
- The Sioux City Transit system is currently carrying about 300 public school students per day (600 rides). These are individuals who live within the two-mile limit of their schools and are paying for their own bus passes. Until last year the school district had been buying passes for about 1,500 such students each day, but due to budget pressures, the school district decided to stop subsidizing the trip for such students. Other in-town students, who are going longer distances and who had been riding the transit system, will now be transported on school buses.

#### *Small Urban Transit Systems*

- Marshalltown Municipal Transit (MMT) provides three morning and two afternoon buses providing school service to Marshalltown schools for students that live within the two-mile eligibility boundary. MMT transports about 85 students per day, 170 passenger trips. This coordination activity developed because the school district population grew and MMT was able to assist immediately with school transportation.
- Public school students in Mason City who are not eligible for school bus transportation are provided with tokens by the school district to ride Mason City Transit.
- The Ottumwa Transit Authority (OTA) provides rides to about 350 students daily who are not eligible for school bus transportation because they live within the two-mile boundary.

#### *Regional Transit Systems*

- The Mid-Iowa Development Association (MIDAS) regional transit authority out of Fort Dodge operates and manages the Manson Northwest Webster school bus system under contract. MIDAS also contracts with the Webster City and Pocahontas School Systems to transport students with disabilities using MIDAS vehicles. Coordination with Manson Northwest Webster began when the director of school bus transportation retired, and the school district was unable to find a replacement. MIDAS already possessed the needed expertise. The contracts with Webster City and Pocahontas save the school districts the cost of a school bus manager.
- Peoplerides in Region 6 (centered on Marshalltown) transports three school children to Iowa Falls and Alden because they live a long way from school and the transit system already goes there. There is potential to do more, but it would require funds for planning and improved dispatching.
- Davenport Schools contracts with River Bend Transit (RBT) to provide transportation for pre-first grade special needs students. Pleasant Valley Schools contracts with RBT to

provide transportation for high school students with behavior problems. The contractual relationships developed because RBT had appropriately-sized vehicles and it was more cost effective to contract than for the schools to operate small school buses for special purposes.

- Siouxland Regional Transit System (SRTS) in Region 4 has operations contracts with the Sioux City School District, LeMars, Akron, and Dakota Valley because the small buses operated by Siouxland are more cost effective in this case than conventional school bus service.
- East Central Iowa Transit (ECIT) contracts with the Washington County Community School district to provide school bus service (using the Washington County mini-bus) to students living two to three miles outside of the city of Washington. The arrangement is cost effective for the school district.
- The 10-15 Regional Transit Agency based in Ottumwa provides primary special education transportation for eight of the 24 school districts in the region as well as for general education students in Ottumwa and Albia. The special education transportation developed because some special education students live in places that would be very expensive for the school district transportation to serve. The service in Ottumwa and Albia was started in response to parents' requests for service in town.
- The Southwest Iowa Transit Agency (SWITA) provides school bus transportation for special needs students who attend classes away from their school district because the schools are unable to serve these students without adding additional school buses and drivers. The regional transit system has available capacity. This is a win-win situation.
- The Western Iowa Transit System (WITS), operated by the Region XII Council of Governments out of Carroll, contracts with two school districts to provide school transportation for special needs students because the smaller transit vehicles are more efficient for this volume of students. The contract makes both the school system transportation and the regional transit system more efficient.
- The Iowa Northland Regional Transit Commission (RTC) in Waterloo purchases transportation for Head Start students from two school districts because the school district service is more cost effective than public transit in this case.
- In Decorah, Northeast Iowa Community Action Transit (NEICAT) provides school bus service to the school systems with disabled students and contracts with the schools to provide Head Start transportation. The Head Start arrangement has been in place for 25 years; the transportation for disabled students saves the school districts the cost of buying lift-equipped buses. This coordination activity saves money, provides a larger area of service more efficiently, and provides more service hours. However, new Head Start transportation regulations may mean that the school districts' buses will not be usable for transporting these preschool students.
- The RIDES regional transit authority, based in Spencer, transports special needs students from the smaller school districts in the region to the larger ones that have special education classes. The service costs less because the school districts pay for only a percentage of the trip costs when sheltered workshop or Head Start customers can also be served.
- Southern Iowa Trolley (SIT), based in Creston, transports special needs students between school districts in Region 14 and transports local students for six school districts. The small school districts involved do not own lift-equipped vehicles. The small number of



special needs students does not make it cost effective for the districts to purchase lift-equipped buses. Coordination with SIT is a cost-effective solution.

- Heart of Iowa Regional Transit Agency (HIRTA) is a brokered system, meaning that they contract with different agencies to operate transit services in each county. Four of their contractors transport disabled students under contract with local school districts.

## **Case Studies**

### *Northeast Iowa Community Action Transit, Decorah*

Northeast Iowa Community Action Transit (NEICAT) has been designated by the counties in Northeast Iowa as the regional public transportation system for Region 1, an area covering five predominantly rural counties. NEICAT provides a region-wide demand-response and subscription services for clients of the local human service agencies and for the general public using small buses and vans operated by staff and contractors.

NEICAT has been active in coordinating transportation services between the school districts and the public transit agency for more than 20 years. For example, NEICAT is responsible for Head Start transportation. In this five-county area, the agency arranges with the school districts to transport the Head Start participants on regular school bus routes, operated by the region's school districts. In many cases, the school buses operate on the routes on which the Head Start children live; it made sense to use the school buses for this transportation. Presently, NEICAT organizes the transportation for 70 children daily who participate in the Head Start program. Participating districts include Howard-Winneshiek, Riceville, Osage, Central Community, Oelwein, and Guttenburg. To provide this service directly would require at least 6 small buses, one per county. By coordinating, the region saves at least \$36,000 per year on capital cost (six buses at \$60,000 with ten-year life). The school districts transport about 50 Head Start students as part of their regular services at no charge to the Head Start Program. NEICAT pays \$8,800 to the 3 school districts where special service must be operated to pick up Head Start students. The net public savings is about \$27,000 per year.

NEICAT also provides transportation for students with special needs or who are disabled. The regional transit system provides this service because the school district did not want to buy additional buses with wheelchair lifts and restraints and the transit service had vehicles that were equipped for those riders with disabilities.

Initial challenges to establishing this system were met by keeping the communication lines open between the school districts, parents, transit agency, and school transportation directors. If problems occurred, they had to be confronted as quickly as possible. Since the coordination activities have been going on for so long, they are now an almost seamless process. In other areas of coordination of services, pre-school children, students, and adult clients all ride on the system's demand-response services at the same time, resulting in significant cost savings. Without this shared ridership, the taxpayers would have to bear the costs of additional drivers, buses, fuel, and other related costs.

### *Mid-Iowa Development Association, Fort Dodge*

The Mid-Iowa Development Association (MIDAS), is the designated regional transit system for the six rural counties in Region 5, surrounding the city of Ft. Dodge. MIDAS also manages the city's small urban transit system, Dodger Area Rapid Transit System (DART). MIDAS operates the regional transit service in the six counties and also manages and operates one school district's school bus service.

The regional transit system provided about 306,000 rides with 42 vehicles (mostly small buses), excluding school transportation. MIDAS began operating the school transportation service in 1999 for the Manson-Northwest Webster School District after the district's transportation director retired and the district was unable to hire a replacement. MIDAS operates the school buses, hires, qualifies, and trains the drivers, and is responsible for vehicle maintenance. The combining of services has proven to be successful. The net public savings is about \$30,000 per year.

MIDAS believes that there is better use of staff time as they are scheduling and dispatching drivers and vehicles throughout the day. Also, the school district was saved the cost of hiring a new transportation director, and, according to MIDAS, the district's vehicle maintenance costs have dropped. Furthermore, vehicle productivity remains the same in terms of passengers per hour, since school rides and transit rides are not combined on the same vehicles, in this case of service coordination. However, the school bus service was added without any increase in staffing for vehicle maintenance, dispatching, or drug and alcohol testing. By having existing staff perform some of the functions covered under the school bus management contract, MIDAS was able to provide savings for its regional transit operation equal to approximately three quarters of a full-time staff position.

### *Ames Transit Agency (CyRide)*

Last year CyRide initiated a "fare free" system, in which students at Iowa State University can ride the buses by showing their student ID card. Instead of paying cash fare or purchasing fare cards, student riders pay for their CyRide service with student fees charged to their university bill. While the "fare free" system has resulted in more stable funding for CyRide, it has also greatly increased ridership and also increased demands for more service. During the morning rush to campus, in residential areas with high student population, the demand for buses outpaced the availability. So, in a rather unique arrangement, CyRide has entered into an agreement with Central Iowa Transit (CIT), the Ames School District transportation provider. The arrangement between CyRide and CIT is that CIT provides three vehicles and drivers to CyRide during these peak times, making five trips. The school buses operate on the Green Route, Cardinal Route, and Brown Route, transporting passengers from residential areas to the Iowa State University campus. (During the time that the school buses are used for CyRide, a sign is posted on the school buses, designating them as transit buses.) The school buses are needed to fill peak demands for about 45 minutes on Mondays, Wednesdays, and Fridays. The school buses follow the regular CyRide bus and pick up passengers unable to board the regular bus.

The arrangement was just started this fall, so savings estimates are not available. However, early comments have been positive. The students who ride school buses arrive on campus on time because they don't have to wait for another transit bus. The school bus drivers have additional work just subsequent to making their school trips. CyRide saves money due to the fact that it does not have to add additional vehicles and drivers for a handful of trips. The net public savings is about \$13,000 per year.

#### *Five Seasons Transportation, Cedar Rapids*

Five Seasons Transportation carries about 650 students daily (1,300 rides) for the Cedar Rapids School District. The program began in 1990 to provide transit service inside the newly-established two-mile school bus eligibility boundary. The average annual cost to the school district per pupil transported is \$446, so the public savings by not providing school bus service to these 650 students is \$289,000. There is an additional capital savings of six school buses, valued at \$36,000 per year. The net public savings is about \$325,000 per year.

An annual student pass on Five Seasons Transportation is \$200, so the student riders generate \$130,000 in revenue for Five Seasons Transit. As with other successful examples of coordination, Five Seasons Transit works closely with the school district on disciplinary procedures and other joint issues. Five Seasons buses are equipped with a GPS-based automatic vehicle location system and on-board cameras. Five Seasons also owns dispatching software based on electronic (GIS) maps of the area that could be used to plan school bus routes, but this element of coordination has not been implemented to date.

#### *Iowa City Transit*

Iowa City Transit operates two school loops, serving neighborhoods that are inside the two-mile school bus eligibility boundary but from which it is difficult to walk to school because of street geography. About 80 students (160 daily rides) use the loop buses and another 80 students (160 daily rides) ride regular Iowa City Transit routes that serve middle and high schools. The student fare is \$0.50. The west side loop has been operated for about six years and the east side loop for about two and one-half years. Iowa City Transit began the loop services in response to public requests for student transportation following implementation of the two-mile school bus eligibility policy. Iowa City transit also provides midday activity and job coaching travel for disabled high school students, but the school district provides home to school transportation for disabled students.

The biggest public saving on transportation occurred when the two-mile eligibility boundary was established. Now, if Iowa City Transit carried 160 students daily at the average school district cost per pupil, the annual operating cost to the school district would be \$48,000 plus the annual cost of at least two school buses—\$12,000 for a 10-year life vehicle. The net public savings is about \$60,000 per year. It costs the public nothing extra to carry students on regular transit routes.

### *Des Moines Metropolitan Transit Authority*

The Des Moines Metropolitan Transit Authority (MTA) has a contract with the Des Moines Independent School District to provide school bus service to two high schools and seven middle schools, transporting approximately 2,100 students (4,200 rides) daily. The Des Moines MTA has been providing this service for about 10 years. The school district buys Des Moines MTA passes in the form of stickers for student ID cards. The passes are good any time, so students can participate in extracurricular activities and still get a ride home.

The MTA bills the school district \$256 per student per year. The average per student cost for Des Moines Independent Schools as reported in the 2001-2002 Annual Transportation Data for Iowa Public Schools is \$448.60. For 2,100 daily students (4,200 rides), the net public savings is about \$400,000 per year. The MTA counts student pass use three days each month to develop an absentee factor, and modifies the bill to the district based on this factor.

This cost saving is possible because the Des Moines MTA (like all fixed routes transit systems) has available capacity in the off-peak travel direction. A study in the early 1990s revealed that many middle and high school students in Des Moines lived within three blocks of an MTA route that went near their school and that most of them would ride in the “reverse commute” direction. The detailed study also showed that the safety record for the two systems was very similar. By making minor route modifications and instituting the student pass program, the available MTA capacity is now used. To handle the very peaked student loads, the MTA does have to run “plugs,” a bus before or after the regularly scheduled MTA bus, on some routes. This is an additional cost, but the net savings is about 43%.

The MTA management works with the school district, so comparable policies are followed. The MTA employs a disciplinary procedure very similar to that used on school buses. Student IDs have pictures, so MTA drivers can be sure that the right student is identified in cases of behavior problems. No student is ever put off the bus, but in the event of a serious problem the bus may return to the school in the evening or the driver will radio for an MTA supervisor to take the student home. The MTA requires students to exit the rear door of the bus so they walk behind the bus as it pulls away. This eliminates the dangerous situation where students walk in front of the bus and the bus blocks visibility to the left.

### *Marshalltown Municipal Transit*

Marshalltown Municipal Transit (MMT) provides three morning and two afternoon bus trips to Marshalltown Municipal Schools for students living inside the eligibility boundary. Students buy a bus pass from the school or from MMT. The price of the pass is up to the principal of each school. Full price is \$0.75 per trip, but some principals sell them to students at a discount. It would cost the school district about \$17,000 annually to provide this service on yellow school buses to the same number of students, but the savings is less than this because some schools pay all or part of the transit fare. For all practical purposes, the operating cost is about the same, but the school districts save purchasing at least two school buses. For a ten-year bus life, the net public savings is about \$12,000 per year.

## *Ottumwa Transit Authority*

Ottumwa Transit Authority (OTA) carries 375 public school students daily on public transit routes (750 daily trips). No fare is charged to students because the fleet and drivers are required for other services provided by OTA. The estimated operating cost savings to the school district is \$46,000 per year. The capital savings for three school buses is about \$18,000 per year. The net public savings is about \$64,000 per year.

### **Potential for Cost Savings**

Previous studies have attempted to pinpoint where cost savings may be achieved through coordination. Multisystems' 1982 study, *The Coordination of Pupil and Non-Pupil Transportation*, states that "since the majority of costs for both public and school bus service is related to the operation of the vehicle, the biggest savings can be achieved through the elimination of vehicle miles of travel." Vehicle use could be reduced or eliminated by reducing fleet size, for example, or by switching to the lower cost operator. Eliminating duplicative administrative and support services also could translate into cost savings. The literature review and survey documentation indicate that agencies that consider coordinating student and other passenger transportation services find different answers when they evaluate the cost effects of coordinated activities because factors that affect the costs of coordination are different for each situation (TCRP 1999).

A precise estimate of savings through coordination is difficult because school districts save or they would not coordinate, but some cost may be incurred by the transit agency to service the contract. It is safe to assume there is a net savings where coordination occurs, but the magnitude is difficult to estimate.

The greatest dollar benefit occurs in cases where public transit provides school bus service inside the 2 or three-mile school bus eligibility boundary. In these cases, school districts would have to add both drivers and fleet to service these pupils. The transit agency can generally reorient regular routes so they serve schools.

Forty-five school districts engage in some form of coordination with public transit. In most cases, the district saves purchasing at least one small, lift-equipped school bus at a cost of about \$60,000. Assuming 10 years of life, that is about \$6,000 per year per district, or \$270,000 per year (assuming one vehicle in each of 45 districts).

Table 7 presents the estimated net public savings on operating costs (for the nine case study transit systems) and vehicle capital costs. The total net public savings from coordination is at least \$1,201,000 per year.

**Table 7. Estimated net public savings from coordination**

<b>Estimated annual net public savings from coordination</b>	
Des Moines	\$400,000
Five Seasons (Cedar Rapids)	\$325,000
Iowa City	\$60,000
Ames	\$13,000
Marshalltown	\$12,000
Ottumwa	\$64,000
Fort Dodge (MIDAS)	\$30,000
NEICAT	\$27,000
Vehicle capital savings	\$270,000
<b>Total net public savings</b>	<b>\$1,201,000</b>

### **Transit Agency Willingness to Consider More Coordination with School Buses**

On the survey, transit agencies were asked if they would be willing to engage in more coordination with school districts. When asked about interest in additional coordination, 77% of the transit systems indicated an interest in providing additional service under contract to schools. Nearly half (48%) said they might consider purchasing some transportation services from school bus operators. Eighty-six percent said they would probably be willing to coordinate pick-up and drop-off points to facilitate transfer of passengers.

The survey also asked about the possibility of joint purchasing or coordination in other functional areas. Many transit managers indicated that they would need a lot more information before being able to say whether they would wish to pursue this, but there was interest in looking into coordination in a number of areas.

Among large urban transit systems the highest interest was in the area of joint purchases of fuels, followed by driver training, and then scheduling/dispatching, service monitoring, and customer service.

Among the small urban transit systems the greatest areas were driver training, then service monitoring, vehicle operations, and customer service. Regional transit systems indicated their greatest interest would be to coordinate in the areas of driver training, then customer service, then vehicle operations and scheduling/ dispatching, followed by vehicle maintenance, insurance purchases, service monitoring, and driver coordination.

The survey responses indicate that transit managers have some questions about coordination in the abstract. While the transit agencies have stated their willingness to coordinate service, the managers' attitudes are quite pragmatic. Many of the responses received indicated that the managers would consider coordinating service if they were provided more details. For the transit managers to consider service coordination, they want to know that the coordination will result in either increase in ridership, increase in revenue, better service, or decrease in costs.

## **Findings**

This report finds that 23 transit agencies coordinate with 45 school districts at a net public savings of over \$1 million. Coordination occurs when these conditions are present:

- There is a need.
- Unused capacity is available at the right time or a specialized fleet is available.
- Each coordinating agency either saves money or gains revenue.
- Managers are willing to work together to solve problems.
- There are no legal or regulatory barriers.
- Both the reality and perception of student safety can be assured.

Public policy in Iowa is supportive of coordination, and that has paved the way for the observed cases.

### **3. SAFETY ISSUES ASSOCIATED WITH COORDINATION**

Everyone agrees that safety is paramount with regard to transporting students. The school bus industry has done a very good job of educating the public as to the safety record of school buses. Because there is far less publicity about the safety record of public transit, it is important to examine the two industries and their safety standards and performance when discussing coordination of services between schools and public transit.

#### **Vehicles Used by Schools**

As noted earlier, about 79% of the vehicles in which schools transport students can be legally defined as “school buses.” The Iowa Administrative Code defines four types of school buses that are legally designated “school buses.” While other vehicles such as school vans may also carry students and be labeled as “school buses,” they are not technically or legally school buses.

- Type A school bus is a conversion or body constructed upon a van-type or cutaway front section vehicle with a left-side driver’s door, designed for carrying more than ten persons. This definition shall include two classifications: Type A-I, with a gross vehicle weight rating (GVWR) over 10,000 pounds; and Type A-II, with a GVWR of 10,000 pounds or less.
- Type B school bus is a conversion or body constructed and installed upon a van or front section vehicle chassis, or stripped chassis, with a gross vehicle weight rating of more than 10,000 pounds, designed for carrying more than ten persons. Part of the engine is beneath or behind the windshield and beside the driver’s seat. The entrance door is behind the front wheels.
- Type C school bus is a body installed upon a flat-back cowl truck chassis with a gross vehicle weight rating of more than 10,000 pounds, designed for carrying more than ten persons. The entire engine is in front of the windshield, and the entrance door is behind the front wheels.
- Type D school bus is a body installed upon a truck chassis with the engine mounted in the front, middle, or rear, with a gross vehicle weight rating of more than 10,000 pounds, designed for carrying more than ten persons. The engine may be behind the windshield and beside the driver’s seat; it may be at the rear of the bus, behind the rear wheels; or it may be midway between the front and rear axles. The entrance door is ahead of the front wheels.

#### **Vehicle Standards for School Buses**

##### *Federal School Bus Safety Standards*

The National Highway Traffic and Safety Administration (NHTSA) has established safety standards requiring specific levels of safety performance for school buses as well as for all other types of vehicles. NHTSA currently has 35 Federal Motor Vehicle Safety Standards (FMVSS) that apply to school buses. Some of these are not normally required for other types of vehicles. School bus safety standards are defined in eight areas: emergency exits, interior occupant



protection, floor strength, seating systems, crashworthiness of the body and frame, vehicle operating systems, windshields and windows, and fuel systems. Table 8 below presents a summary of these safety standards and a brief description of those requirements.

**Table 8. Federal Motor Vehicle Safety Standards for school buses**

Standard no.	Title and description
105	Hydraulic Brake System: Requires school buses utilizing hydraulic brakes to stop in shorter distances.
108	Lamps, Reflective Devices and Associated Equipment: Requires red and amber signal lamps, which indicate the bus is loading/unloading passengers.
111	Rearview Mirrors: Requires the driver be able to see either directly or through a system of mirrors certain areas in front of and along both sides of the school bus.
131	School Bus Pedestrian Safety Devices: Requires a stop arm that extends on the left side of the bus to warn motorist when it is loading/unloading passengers.
217	Bus Emergency Exits and Window Retention and Release: Requirements that specify means of readily accessible emergency egress and the emergency exits easier for children to use along with increased conspicuity.
220	School Bus Rollover Protection: Specifies minimum strength requirements for school bus roofs to reduce the likelihood of roof collapse in a rollover, and requires that emergency exits (except roof exits) be operable after the roof is subjected to forces that can be encountered in rollovers.
221	School Bus Body Joint Strength: Specifies minimum strength requirements for body panel joints to improve the structural integrity of the passenger compartment and to reduce the likelihood of lacerative injuries to occupants caused by the sharp edges of body panels that tear loose in crashes.
222	School Bus Passenger Seating and Crash Protection: Specifies seating, restraining barrier, and impact zone requirements for school buses. The standard relies on compartmentalization between well-padded and well-constructed energy absorbing seats to provide occupant protection. Specifies requirements for wheelchair restraint systems.
301	Fuel System Integrity: Specifies requirements for the integrity and security of the entire fuel system, including the fuel tanks, fuel pump, delivery system, emission controls, lines, and connections in severe barrier impact crash tests.
303	Fuel System Integrity of Compressed Natural Gas Vehicles: Specifies requirements for the integrity and security of the entire fuel system and connections in severe barrier impact crash tests.

When schools use vehicles other than school buses to transport students, those vehicles are required only to meet the FMVSS appropriate to that type of vehicle. If they are transporting students to or from school, they are required to have a sign on the rear of the vehicle indicating that they are a “School Bus.” If they are transporting students to or from school activities, this sign is not required.

### *School Bus Safety Equipment*

In addition to the stop arm and red/amber safety lights required on official school buses by federal law, Iowa has other requirements. Iowa requires that all school buses be painted with the high visibility yellow color, officially known as “school bus yellow.” Iowa law also requires white strobe lights on school buses and reflective tape for adverse weather conditions. Iowa also requires buses to have first aid kits and fire extinguishers on board at all times.

The Iowa Administrative Code also requires a crossing control arm similar to that shown in Figure 13 on all school buses in Iowa. This device is installed to ensure that children cross the street far enough away from the school bus to be seen by the bus driver and other drivers alike.

### *Type A School Buses*

Figures 3 and 4 show the exterior and interior of a small Type A school bus. This is a smaller, specialty vehicle designed for more than 10 persons. This vehicle is a conversion style, which has a left-side driver’s door.



**Figure 3. Type A school bus exterior (courtesy of Ankeny School District)**



**Figure 4. Type A school bus interior with child seat (courtesy of Ankeny School District)**

*Type B School Buses*

Type B school buses are larger than Type A school buses but are not typically used in Iowa. Type B school bus is also a conversion style designed to transport more than 10 passengers. The differences between a Type A bus and Type B are that part of the engine is moved back, beneath or behind the windshield and beside the driver's seat, and that the entrance door is behind the front wheels. In the Type B bus, there is no left-side driver's door. See Figure 5.



**Figure 5. Type B school bus (not typically used in Iowa)**

### *Type C School Buses*

Figures 6 and 7 show a larger, more traditional-looking Type C school bus exterior and interior, respectively. The Type C school bus is a body installed upon a flat-back cowl chassis, designed to transport more than 10 persons. In this configuration, the engine is in front of the windshield, and the entrance door is behind the front wheels. Figure 7 shows the interior of a Type C bus, including the padded seats and the “compartmentalized” design of the interior. The emergency exit is at the rear of the bus.



**Figure 6. Type C school bus exterior**



**Figure 7. Type C school bus interior**

### *Type D School Buses*

Figures 8 and 9 show a Type D school bus, with 84-passenger occupancy (exterior and interior, respectively). The Type D school bus is large capacity bus. In this configuration, the engine may be mounted in the front, middle, or rear. The engine may be behind the windshield and beside the driver's seat; it may be at the rear of the bus, behind the rear wheels; or it may be midway between the front and rear axles. The entrance door is ahead of the front wheels.



**Figure 8. Type D school bus**



**Figure 9. Type D school bus interior**

Some buses are equipped with wheel chair lifts and restraints to transport passengers who require them. Figures 10 and 11 show the exterior and interior of a school bus equipped with a wheelchair door. Because school buses are not subject to ADA requirements, even those school buses with wheelchair lifts installed usually do not meet access standards required for public transit or human service programs.



**Figure 10. External view of wheelchair door**



**Figure 11. Internal view of wheelchair door**

Figure 12 shows the driver area on a Type D school bus. In this configuration, the controls that the driver needs are below the field of view for driving, so that the driver has plenty of road visibility and is able to see passengers when they disembark from the bus. Figures 13 and 14 show a crossing control arm and safety lights, respectively.



**Figure 12. Driver's area Type D school bus**



**Figure 13. Crossing control arm (courtesy of Ankeny School District)**



**Figure 14. Safety lights on buses (courtesy of Ankeny School District)**

### *School Bus Inspections*

Iowa requires each school vehicle used to transport students to and from school to be inspected by Iowa Department of Education inspectors twice a year, at about the beginning of each semester, verifying the safety of virtually every part, from the brakes, tires, and fuel lines to the interior seats, instruments, and gauges.

### **Description of Transit Vehicles**

Transit vehicles fall into three categories: heavy duty, medium duty, and light duty.

#### *Heavy-duty Transit Buses*

Heavy-duty urban coaches are purpose-built vehicles with an integral chassis, rather than being a body merely attached to a van or truck chassis. The heavy-duty transit buses are manufactured in 35- and 40-foot models lengths (or even 70-foot length in an articulated model). They weigh about double what a similar-sized school bus weighs. This greater weight, lower center of gravity, and greater structural integrity, combined with the lower operating speeds they experience in an urban environment, make them one of the best vehicles for passenger safety in the event of a collision.

The heavy-duty transit bus shown in Figures 15–17 (courtesy of Five Seasons Transportation and Parking) is from the city of Cedar Rapids, Iowa. The bus pictured is a 1978 GMC RTSII. It is 40 feet long, 102 inches wide, and has a seating capacity of 45. It has capacity for two wheelchairs and uses a Ricon cassette wheelchair lift.





**Figure 15. Heavy-duty transit bus exterior**



**Figure 16. Heavy-duty transit bus interior, looking toward the rear**



**Figure 17. Heavy-duty transit bus interior, looking toward the front**

*Medium-duty Transit Buses*

Medium-duty transit buses are built with a body on truck chassis, often using the same bodies as are used for larger school buses. As such, they have similar issues with high centers of gravity. They are, however, required to fully meet ADA accessibility requirements, including wider aisles for walking and grab rails. See Figures 18 and 19.



**Figure 18. Medium-duty transit bus similar to Type D school bus (courtesy of Linn County LIFTS)**



**Figure 19. Medium-duty transit bus similar to Type A school bus (courtesy of Region 16)**

*Light-duty Transit Buses*

Light-duty transit buses are built with a body on the same cutaway van chassis as the Type A school buses. While school buses stick with a riveted sheet metal skin, light-duty transit buses may have either a metal skin or a fiberglass reinforced plastic skin, which stands up better to Iowa's road salt. Since the 1980s, Iowa transit properties have been requiring that the light-duty buses they buy meet not only the federal safety standards that apply to public buses, but also the federal rollover, joint strength, and fuel system integrity standards for school buses. Most are also bought with all the access features required under the ADA. See Figures 20–22.



**Figure 20. Light-duty transit bus (courtesy of Community Action of Southeast Iowa)**



**Figure 21. Light-duty transit bus interior with passengers (courtesy of MIDAS)**



**Figure 22. Light-duty bus equipped with wheelchair lift in conformance with ADA accessibility standards (courtesy of Region 15)**

### *Vans and Minivans*

Iowa transit systems may also use vans or minivans modified to carry wheel chairs in compliance with standards established under the ADA. When purchasing these vehicles, the transit systems also specify that the vehicles must meet the rollover, joint strength, and fuel system integrity standards for school buses. See Figure 23.



**Figure 23. Transit minivan equipped with wheelchair ramp in conformance with ADA accessibility standards (courtesy of Region 3)**

## **Transit Bus Safety**

### *Federal Transit Vehicle Standards and Testing*

NHTSA has established 28 standards that are required by federal law for all transit buses. As noted above, when Iowa transit systems purchase the smaller body on chassis type vehicles, they also have been voluntarily incorporating several of the standards that the federal government requires only on school buses. Other areas where Iowa transit systems typically use higher voluntary safety standards than are required at the federal level are in the area of flammability of interior materials, high visibility LED lighting, child restraint, and wheelchair interlocks.

Since 1987, all models of transit vehicles to be purchased with federal assistance (virtually all transit vehicles in Iowa) are required to have been put through a battery of safety, performance, and durability tests at a vehicle testing center in Altoona, Pennsylvania, operated under contract to the Federal Transit Administration (FTA). The tests apply to all new bus models and also to any vans, minivans, SUVs, or other vehicles, if they are being modified for transit use.

Seven tests are performed on the buses:

1. Safety
2. Structural integrity and durability
3. Reliability
4. Performance, including brake testing and emissions testing
5. Maintainability
6. Noise
7. Fuel economy

These are not pass-or-fail tests; the data from all the tests are compiled into a test report that is made available to the manufacturer to provide information during the procurement process. The report lists how the vehicle performs during the tests to ensure that the vehicle meets the expectations of the manufacturers and the customers. Each transit system is required to have received and evaluated the test results before purchasing a vehicle.

### *Iowa Administrative Code Chapter 911 Standards for Transit Vehicles*

When the Iowa Department of Transportation, with input from the Iowa Department of Education, adopted standards for student transportation provided by regional transit systems in response to the legislative action authorizing such services in 1999, they incorporated the existing practice of requiring small transit vehicles to meet the school bus rollover, joint strength, and fuel system integrity standards. They also established a requirement for a rear emergency exit door, as opposed to the federal standards that allow both transit buses and school buses to have emergency kick-out windows instead of doors. They did not require the tightly spaced compartmentalized seating that school buses use, but instead gave the option that regional transit vehicles could either have compartmentalized seating or provide passenger restraint via lap and shoulder belts.

Since state law prevents Iowa transit systems from having certain safety features, Chapter 911 requires operating procedures to accomplish student safety in other ways. Because transit vehicles are not allowed to have stop arms that protect students who might run across the street to either board their bus or after getting off the bus, the Chapter 911 rule requires that students be picked up or dropped off on the same side of the street as their home or destination.

Chapter 911 also formally requires what was already the typical practice of transit vehicles being equipped with extinguishers, first-aid, body fluid kits, and mobile radios or phones for emergency communications.

### *Transit Vehicle Inspections and Maintenance*

Iowa law requires that daily walk-around inspections of all public transit vehicles be performed by mechanics or drivers. Regional transit vehicles used for contracted student transportation are also required to go through the biannual inspections by the Iowa Department of Education's school bus inspectors.

Proper maintenance of vehicles and equipment is critical to the continued safe operation of the transit system. Unsafe vehicles present unnecessary hazards to the driver, passengers, and other vehicles on the road. Basic vehicle maintenance practices employed by the transit systems regularly address safety-related vehicle equipment to ensure that no unsafe vehicles are dispatched for service. Safety-related vehicle equipment includes the following:

- Service brakes and parking brake
- Tires, wheels, and rims
- Steering mechanism
- Vehicle suspension

- Mirrors and other rear vision devices (e.g., video monitors)
- Lighting and reflectors or reflective markings
- Wheel chair lifts

Most safety-related equipment is inspected during a pre-trip inspection to ensure that the vehicle is fit for service. Most manufacturers of vehicles and specialized equipment provide suggested operating standards and routine maintenance activities for safety-related equipment.

The transit agencies have established formal plans to address the maintenance requirements of their vehicles and equipment. The vehicle maintenance program elements address, at a minimum, the following categories:

- *Daily servicing needs.* This relates to fueling, checking and maintaining proper fluid levels (oil, water, etc.), vehicle cleanliness, pre- and post-trip inspections, and maintenance of operational records and procedures.
- *Periodic inspection.* These activities are scheduled to provide maintenance personnel an opportunity to detect and repair damage or wear conditions before major repairs are necessary. Inspection items include suspension elements, leaks, belts, electrical connections, tire wear, and any noticeable problems.
- *Interval-related maintenance.* The focus is to identify wear, alignment, or deterioration problems of parts or fluids. Replacement intervals of these items are determined through transit agency experience and manufacturer recommendations.
- *Failure maintenance.* Regardless of the preventative maintenance activities, in-service failures will occur. When a failure is encountered that makes the vehicle unsafe or unable to continue operation, the vehicle is usually removed from service and returned to the garage for repair.

## **Driver Qualifications and Selection**

To ensure the safety of the passengers and the traveling public, drivers of school buses and transit buses must meet certain physical qualifications in order to operate the vehicles on the public highways. The qualification for school bus drivers and transit drivers are similar but there are some differences.

Along with the physical qualifications, both school bus drivers and transit bus drivers are subject to criminal background checks, drug and alcohol testing, and recurrent safety training.

### *School Bus Driver Qualifications*

In the case of school bus drivers, the qualifications are as follows:

- The driver must be a minimum age of 18 and possess a valid commercial driver's license (CDL), for vehicles designed for 15 or more passengers. For smaller vehicles, a chauffeur's license is required. In both cases, a school bus endorsement is also required. If the driver operates in interstate operations, he or she must be 21 years old under federal law.

- The driver must also pass controlled substances test and alcohol test prior to operating the vehicle.
- The driver should be emotionally stable as determined by such factors as patience, considerateness, even temperament, and calmness under stress.
- The driver should be of good general character, as marked by such elements as reliability or dependability, ability to get along with others, restraint from undesirable language, personal cleanliness, honesty, and freedom from substance and alcohol abuse.
- The driver shall be physically fit and free from tuberculosis and other communicable diseases, as shown by an annual physical examination and written report signed by a qualified healthcare practitioner. (A medical doctor, MD, doctor of osteopathy, DO, or doctor of chiropractic, DC, may sign the physical examination.)
- The driver shall have an acceptable driving record, demonstrate the ability to safely operate the vehicle, and be knowledgeable of traffic laws with respect to school buses.

In addition, most school districts reportedly require a criminal background check for new drivers.

School employees driving children to and from activities are not subject to the school bus driver standards.

#### *Transit Bus Driver Qualifications*

In the case of transit bus drivers, operating vehicles designed for 15 or more passengers, a Commercial Drivers License is required by the Federal Motor Carrier Safety Administration and the State of Iowa.

The CDL requirements are as follows:

- The driver must be a minimum age of 18.
- The driver should be in good health and physically able to perform all duties of a driver, as evidenced by possessing a valid medical certificate.
- The driver should pass controlled substances and alcohol tests.
- The driver should speak and read English well enough to converse with the general public, understand highway traffic and signals, respond to official questions, and be able to make legible entries on reports and records.
- The driver should be able to drive the vehicle safely.
- The driver should have only one valid commercial motor vehicle operator's license.
- The driver should provide an employing motor carrier with a list of all motor vehicle violations or a signed statement that driver has not been convicted of any motor vehicle violations during the past 12 months. A disqualified driver must not be allowed to drive a commercial motor vehicle for any reason.
- The driver should pass a driver's road test or equivalent.
- The driver should complete an application for employment.
- The driver should have no established medical history or clinical diagnosis of diabetes requiring insulin for control.
- The driver should have no clinical diagnosis of any disqualifying heart disease.



- The driver should have no clinical diagnosis of high blood pressure.
- The driver should have no clinical diagnosis of epilepsy.
- The driver should have 20/40 vision or better with corrected lenses.
- The driver should have distant binocular acuity of at least 20/40 in both eyes.
- The driver should have the ability to recognize the colors (red, green and amber) of traffic signals.
- The driver should have hearing to perceive a forced whisper.
- The driver should have no history of drug (Schedule 1) use or any other substance identified in Appendix D.
- The driver should have no clinical diagnosis of alcoholism.

For smaller vehicles a chauffeur's license is required. In both cases, a passenger bus endorsement is required.

In addition, transit agencies require criminal background checks for bus driver applicants, and all transit drivers are subject to ongoing drug and alcohol testing.

Chapter 911 of the Iowa Administrative Code, requires that regional transit drivers who will be operating vehicles carrying students under contract to schools must all be screened for criminal background and put through drug and alcohol testing. They must also possess the same school bus driver endorsement as if working for a school system and participate in the same initial school bus driver training and annual updates.

## **Driver Training Requirements**

Training is ongoing for both school bus drivers and transit drivers. Drivers receive initial training upon being hired and also recurrent training during their employment with the school district or transit agency. The training covers topics ranging from safety issues, such as defensive driving techniques, to how to handle recalcitrant passengers.

### *School Bus Driver Training*

Below is a list of some of the training topics covered for school bus drivers in Iowa:

- Defensive driving skills
- Emergency
- First aid
- Head Start, preschool transportation
- Railroad crossing safety
- Winter driving skills
- Accident procedures
- Handling problem passengers

## *Transit Driver Training*

Once qualified candidates are identified and hired, initial and recurrent training is critical to ensure proper operations and adherence to the transit providers' rules and regulations. Proper qualification of operating and maintenance personnel is a vital part of a safe transit environment. Driver training courses offered through the Iowa Department of Transportation and other providers address specific safety-related issues appropriate to the type of vehicle and driving assignment.

Training programs are offered in the following areas:

- *Traffic regulations.* Training course addresses state and local traffic rules and regulations, including traffic signs and signals (including proper use of hand signals).
- *Defensive driving and accident prevention.* These courses stress defensive driving principles, collision prevention, and concepts of preventable accidents as a measure of defensive driving success.
- *Type of vehicle in service.* Training focuses on the type of vehicle that will be used in service; significant differences can exist among different bus models and among different manufacturers, and equipment may have characteristics that are unique to the service environment.
- *Basic driving maneuvers, including backing and stopping.* Training includes all basic driving maneuvers for the type of vehicle in service, including the difficulties in backing maneuvers that can lead to accidents, stopping distance requirements, and equipment-specific functions such as door opening and closing procedures for passenger boarding and alighting.
- *Passenger Assistance Techniques.* This includes sensitivity training for handling persons with disabilities and special needs as well as operating ADA equipment.

Training transit operations personnel is not a one-time activity. Ongoing, or recurrent training is necessary to reinforce the policies and procedures as well as to provide a mechanism to brief drivers on new policies, procedures, or regulations.

## **Accident Data for Transit and School Bus Systems**

In 1999, the transit systems in Iowa traveled a total of 28,777,048 miles, and transit vehicles were involved in 450 accidents. In the same year, there were a total of 383 accidents involving school buses, and they traveled a total of 43,499,858 miles over Iowa roads.

In 2000, there were a total of 453 accidents involving transit vehicles covering a total of 29,927,317 miles. In 2000, there were 486 accidents involving school buses, which traveled 42,782,701 miles.

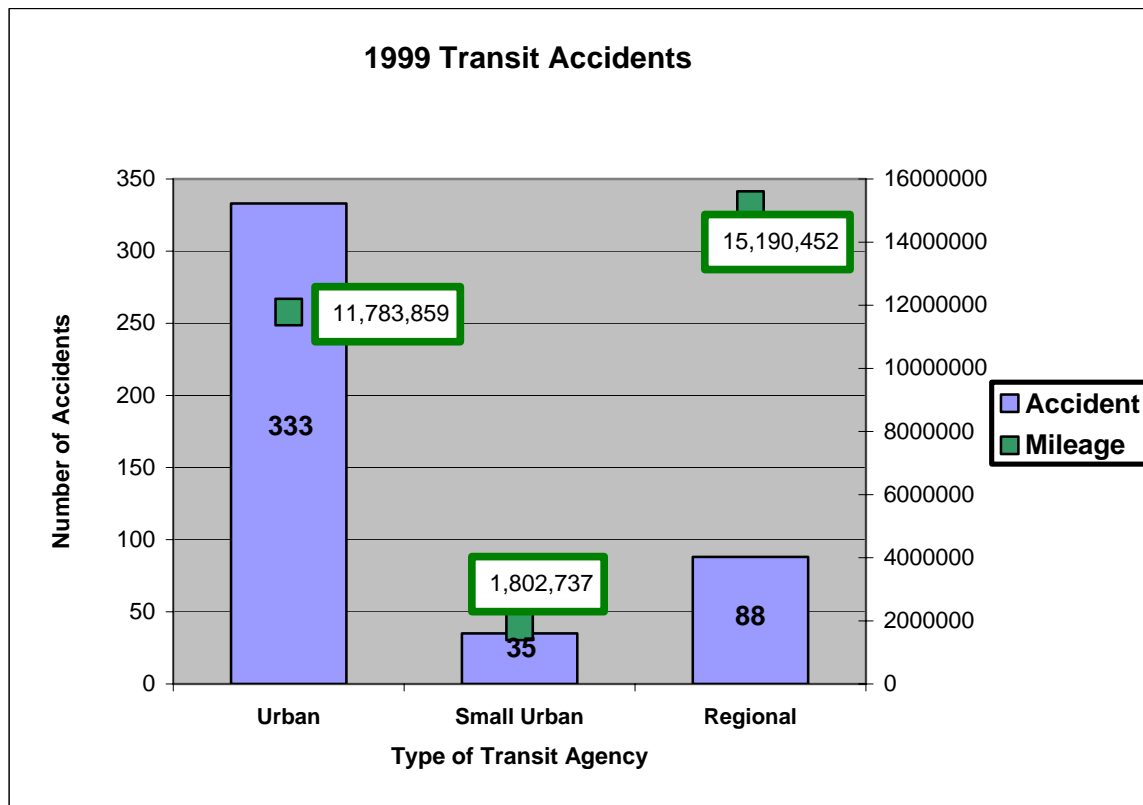
The total accident rates and personal injury accident rates for the systems are given in Table 9. These data are for the whole system fleets.

**Table 9. Total accident rates and personal injury accident rates for transit and school bus systems**

System	Total accident rate per 1,000,000 miles		Personal injury accident rate per 1,000,000 miles	
	1999	2000	1999	2000
Transit	15.63	15.14	2.19	1.97
School bus	8.80	11.36	2.09	4.23

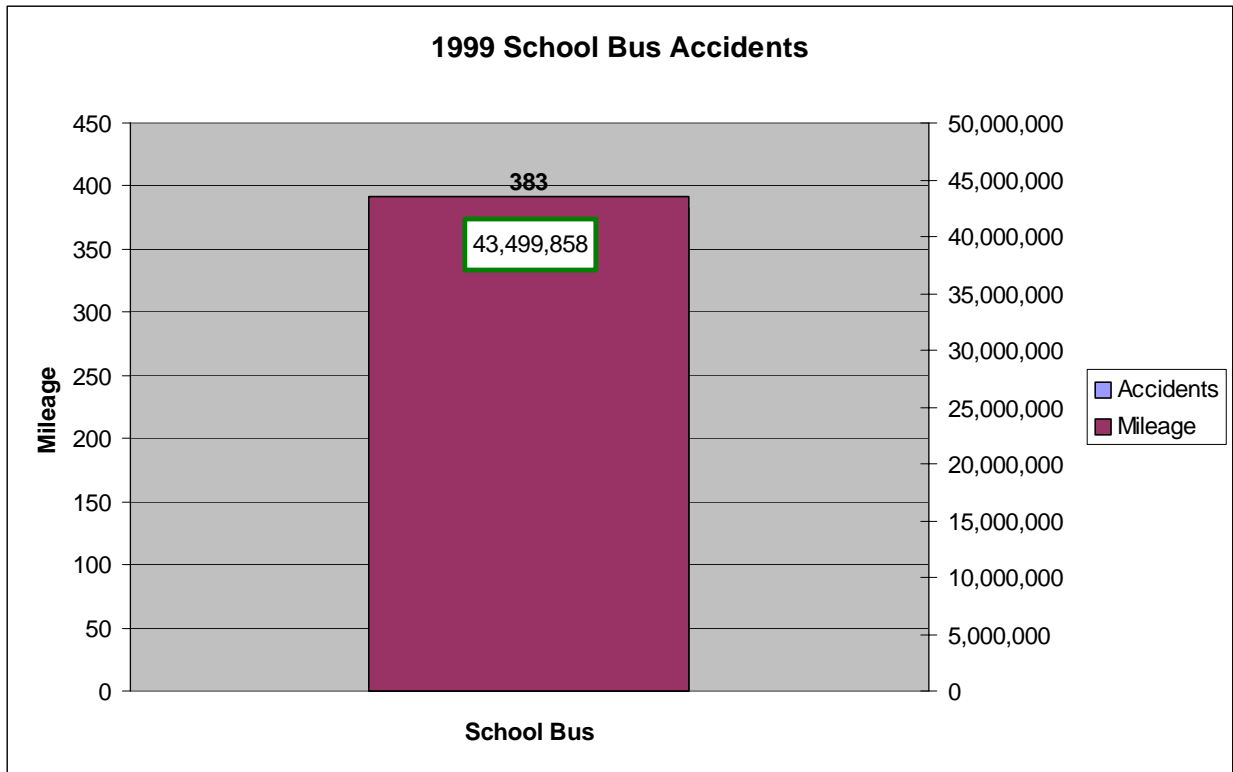
Figures 24–27 show the number of accidents for all transit and school transportation providers in Iowa. There are 35 transit agencies, both urban and rural, and 371 school districts that provide transportation services. The number of accidents is indicated for each system.

Figure 24 indicates the number of accidents by transit agency for 1999. The urban systems experienced 333 accidents, including 50 personal injury accidents, while operating 11,783,859 miles. The small urban systems experienced 35 accidents, including 4 personal injury accidents, while operating 1,802,737 miles. The regional systems experienced 88 accidents, including 10 personal injury accidents, while operating 15,190,452 miles. This calculates to an accident rate of 15.63 per 1,000,000 miles traveled for the entire transit system.



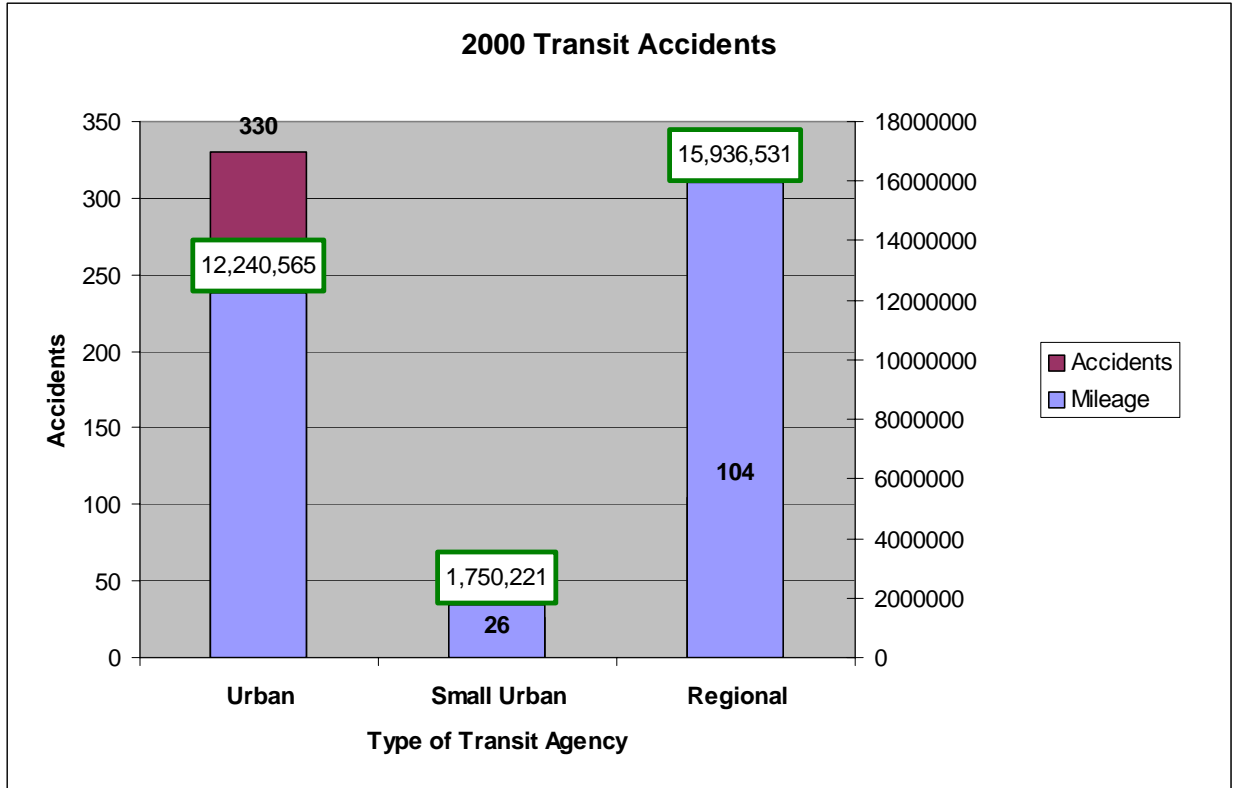
**Figure 24. 1999 accidents for transit systems**

Figure 25 shows the number of accidents experienced by the school bus transportation system in Iowa in 1999. The school bus system experienced 383 accidents, including 91 personal injury accidents, while operating 43,499,858 miles. This calculates to an accident rate of 8.80 per 1,000,000 vehicle miles traveled.



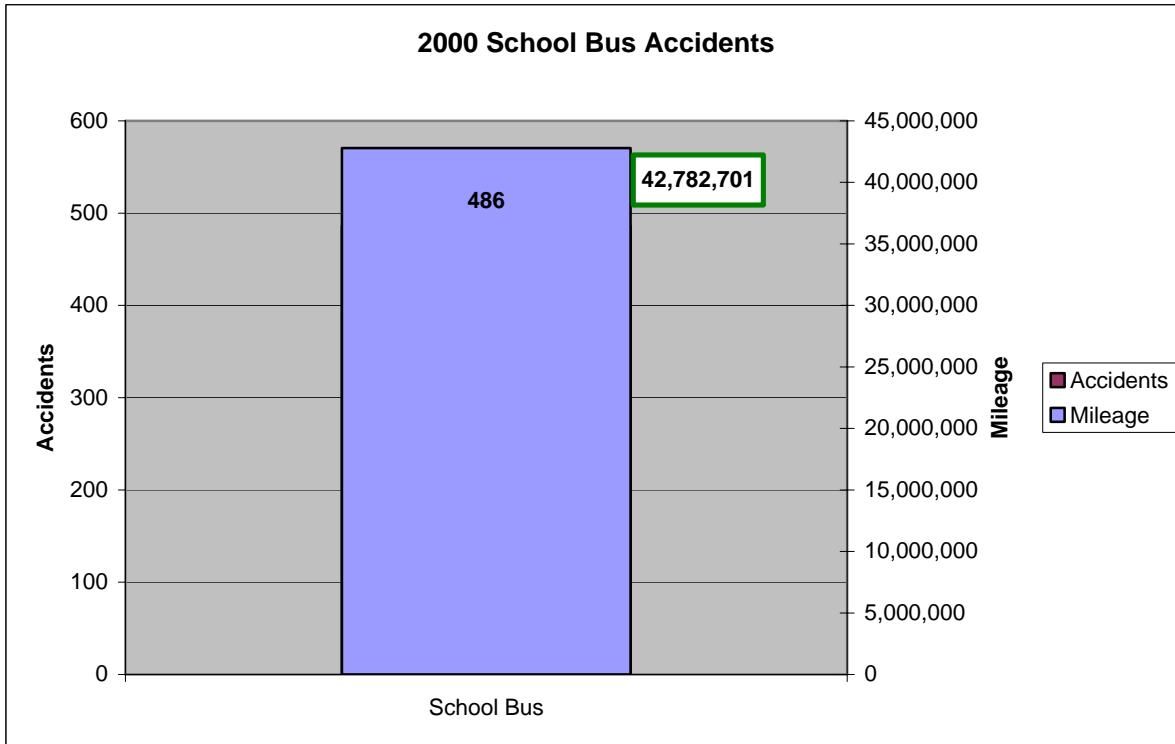
**Figure 25. 1999 accidents for school bus systems**

Figure 26 indicates the number of accidents by transit agencies for 2000. The urban systems experienced 330 accidents, including 46 personal injury accidents, while operating 12,240,565 miles. The small urban systems experienced 26 accidents, including 3 personal injury accidents, while operating 1,750,221 miles. The regional systems experienced 104 accidents, including 10 personal injury accidents, while operating 15,936,531 miles. This calculates to an accident rate of 15.37 per 1,000,000 miles traveled for the entire transit system.



**Figure 26. 2000 accidents for transit systems**

Figure 27 shows the number of accidents experienced by the school bus transportation system in Iowa in 2000. The school bus system experienced 486 accidents, including 181 personal injury accidents, while operating 42,782,701 miles. This calculates to an accident rate of 11.36 per 1,000,000 vehicle miles traveled. In examining the accident history to determine why the school bus personal injury accidents doubled between 1999 and 2000, the researchers found that there was one accident in which 25 people reported injuries.



**Figure 27. 2000 accidents for school bus system**

The accident data for transit buses and school buses are comparable. The accident rates for both school buses and transit buses are comparable to other modes of transportation, as seen in Table 10. While the total crash rate is higher for school and transit buses, than it is for other modes, it is important to note that there were no fatal accidents involving school buses or transit buses in the years that we examined.

**Table 10. Crash rate per vehicle type in Iowa (FY 2000)**

Vehicle type	Total crash rate per million miles	Personal injury crash rate per million miles	Fatal crash rate per million miles
Passenger vehicles (including vans, SUVs, pickup trucks)	2.964	1.102	0.016
Straight trucks	1.076	0.371	0.013
Tractor-trailers	0.999	0.309	0.022
Transit vehicles	15.14	1.97	0
School buses	11.36	4.23	0

In 2000, passenger vehicles, including automobiles, vans, sport utility vehicles, and pickup trucks traveled 27,278,000,000 miles in Iowa. These vehicles were involved in 80,863 crashes. In that year, there were also 428 fatal crashes while operating passenger vehicles.

In 2000, straight trucks accounted for 1,047,000,000 miles traveled in Iowa. Straight trucks were involved in a total of 1,127 crashes. There were 388 personal injury crashes and 14 fatal crashes involving straight trucks. During that same year, tractor-trailers traveled 2,718,000,000 miles in Iowa. Tractor-trailer vehicles were involved in a total of 2,714 crashes. There were 840 personal injury crashes and 60 fatal crashes involving tractor-trailers.<sup>1</sup>

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<sup>1</sup> Data from *Iowa Crash Facts* (Iowa DOT 2000). In 2000, there were a total of 63,364 vehicle crashes in Iowa.

#### 4. CONCLUSIONS AND RECOMMENDATIONS

The conclusions of this review of coordination between public transportation and school transportation are as follows:

- Iowa policy is supportive of coordination activities.
- Coordination occurs when there is clear benefit to both parties.
- Coordination can result in efficiencies and cost savings.
- The safety records of school bus and public transit in Iowa are both excellent and comparable.

Where coordination already exists between transit providers and schools, the managers had obstacles to overcome. While these challenges are not insurmountable, they are not trivial either. Each provider serves different customers, operates differently, and has different funding sources and vehicle requirements. Careful negotiations had to be made to ensure the success of the project.

In most of the observed regional (rural) cases, the big savings comes from not having to add a vehicle to the school bus fleet to transport a small number of special needs students or students that live far from established school routes. The public transit service is operating anyway and is lift-equipped, because the Americans with Disabilities Act requires that nearly all transit vehicles be accessible to the disabled. This arrangement saves money for the school district involved and provides revenue to the transit system. It is really a double benefit.

In large and small urban areas, coordination ranges from the Des Moines case where the Des Moines MTA provides 4,200 rides a day and bills the school district based on usage to cities where school students ride transit buses on an incidental basis. A common arrangement found in Iowa City, Cedar Rapids, Ottumwa, Marshalltown, and Mason City is that students ride public transit if they live within the two to three mile eligibility limit where school bus transportation is not provided.

Safety is a concern that is often voiced when the subject of coordination is introduced. School buses are often held out to be among the safest vehicles on the road. Actually, both types of systems have enviable safety records. The accident data show that public school buses and transit buses have comparable accident rates. While each type of bus serves a different clientele, both types of buses are designed and built to certain Federal Motor Vehicle Safety Standards (FMVSS). School buses have additional safety appurtenances on them including red and amber safety lights, white strobe lights, and safety control arms to enhance student safety. Public transit buses tend to have greater vehicle weights and increased structural integrity and are better at handling passengers with disabilities, when needed.

Potential exists for more coordination. Barriers to identifying such opportunities include the lack of sufficient staff time to conduct the analysis needed, a perception on the part of some members of the public that yellow school buses are safer, and opposition from private businesses that in some places provide school bus service under contract to school districts. Officials on the local level should be aware of ongoing school and transit coordination activities and encouraged to



explore opportunities to create efficiencies in publicly funded transportation in their communities.

## APPENDIX A: SURVEY OF PUBLIC TRANSIT AGENCIES

### Methodology

For this report, we surveyed the transit systems that serve the State of Iowa to determine what service coordination, if any, they were conducting and to determine the climate in their areas for service coordination with the local school districts.

This section of the report covers the results of the survey conducted by CTRE during the fall of 2003 to determine the presence of school and transit service coordination and the demand for any coordination in Iowa. In summary, the results of the survey are mixed. Several areas show great potential for service coordination, while others indicate that there are too many barriers to overcome to be successful.

### Large Urban Systems

*Including Davenport CitiBus, Council Bluffs Special Transit Service, Five Seasons Transportation and Parking (Cedar Rapids), CyRide (Ames), Keyline Transit (Dubuque), Iowa City Transit, Bettendorf Transit, Waterloo Black Hawk County Metro Transit Authority, Sioux City Transit System, Des Moines Metropolitan Transit Authority (MTA)*

1. Please describe any coordination that presently exists between your organization and any school district within your service area.
  - Special needs students utilize our services.
  - The Cedar Rapids Community School District.
  - Catholic Board of Education.
  - Three school buses are used in transit service at completion of their school runs.
  - Transportation of students that reside within the two-mile boundary.
  - Fuel purchasing.
  - Our long-standing agreement (since 1983) with the school board was just ended in an attempt to save money.
  - MTA operates bus service for Des Moines school district to two high schools and six middle schools with about 3,000 daily student riders. We provide annual passes that are paid for by the school district. We have been doing this for over 10 years.
  
2. What event(s) prompted the coordination efforts? (For example, budget constraints, lack of service, etc.)
  - The school district's buses were not all ADA accessible.
  - Budget constraints.
  - Safety concerns for those students walking within the two-mile boundary.
  - Boundary changes.
  - Lack of capital funds. The Iowa DOT invests its capital disproportionately in regional systems causing extra operating expense to urban areas.

- Lack of busing services being provided by the school district.
- The desire to make better use of tax dollars prompted the school district to study whether the MTA could provide an equal quality service at a lower cost.

3. Would your agency have any interest in coordinating transportation needs and/or services with school districts in your area? Please check the areas that interest you. Check all that apply.

	Yes	No	Not Sure
a. Coordinated Procurement			
i. Vehicles	1	5	1
ii. Fuel	5	2	1
iii. Driver Training	4	2	1
iv. Operational Contract	4	0	3
v. Maintenance	1	3	3
vi. Insurance	2	3	2
vii. Hardware/Software	2	0	5
viii. Other (Specify)_____	0	0	0

	Yes	No	Not Sure
b. Coordinated Functions			
i. Reservations Taking	0	4	3
ii. Scheduling/Dispatching	3	2	2
iii. Vehicle Operation	2	1	4
iv. Service Monitoring	3	2	2
v. Customer Service/Referral	3	1	3
vi. Driver Coordination	2	1	4
vii. Other (Specify)_____	0	0	0

4. Would your agency be interested in providing transportation services under contract to a school district?

Yes: 6  
No: 3

Additional Comments:

- If enough vehicles were available.
- We already provide service.

5. Would your organization consider purchasing transportation services from a school district, assuming that the price and quality of services met your needs?

Yes: 7  
No: 2

Additional Comments:

- More information is needed.
- If the city council approved it.

- We are prohibited from purchasing service from a provider using “school bus” marked vehicles. Both Federal and State regulations.
- Depending on liability issues.

6. Would your organization be willing to consider coordinating pick-up and drop-off points to facilitate the transfer of passengers/pupils from one transportation service to another?

Yes: 8  
No: 0

Additional Comments:

- Possibly with a fixed route service.
- Have done so in the past.

7. To the extent that your agency has coordinated transit and school transportation, how would you grade the coordination effort to date?

Very Successful: 2  
Successful: 1  
Neutral: 3  
Unsuccessful: 1  
Very Unsuccessful:

Please explain the success or drawbacks of the coordination effort. (For example, saved money, more productive, gave drivers more hours, etc.)

Successes

- Saved capital.
- Saved taxpayers thousands of dollars.
- Lower costs.
- The annual student pass allows for more flexibility and freedom than school limited operations.

Drawbacks

- The superintendent was unwilling to support.
- We were bearing all of the expense.
- Operating cost was the same.

8. In the areas that you have checked off, or described previously, are there any specific organizations with which you would like to coordinate?

- Davenport School District.
- Would like to coordinate in any possible areas.
- Dubuque community schools.
- Hospitals.
- Nursing Homes.

- DHS.
  - Additional opportunities may exist in West Des Moines, Ankeny, and Johnston.
9. Do you feel there are any real or perceived barriers to coordination of existing transportation services in your area? (For example, statutory barriers to pooling funds, liability concerns, “turf issues”, etc.) Use reverse side if necessary.
- Transit service is provided by city employees, school bus transportation is operated by a private company.
  - No: 1.
  - Lack of trust by the school district.
  - Opinion that the public transit system is demeaning and unsafe.
  - Insulin dependent drivers are allowed to drive school buses – cannot be allowed to transport transit passengers.
  - School drivers not required to wear uniforms or name badges.
  - There seems to be no interest on the part of the school district.
  - Some turf issues. Our school bus provider is a private for profit company with a lucrative contract with the district.
  - Money.
  - Originally there were concerns of safety, reliability, etc. None of those concerns exist now. There will always be concerns by unions.
10. Any additional comments?
- Offer a financial incentive, over and above any cost savings from the state of Iowa.
  - Provide an outplacement service for any managers who are displaced.

### **Small Urban Systems**

*Including Burlington Urban Service, Clinton Municipal Transit Administration, Ottumwa Transit Authority, Mason City, Marshalltown Municipal Transit, MIDAS/DART (Fort Dodge)*

1. Please describe any coordination that presently exists between your organization and any school district within your service area.
- None: 2.
  - Provide rides to about 350 students daily on a fixed route system.
  - Students no longer allowed to use school transportation are provided tokens by the schools to ride city transit.
  - We provide 3 morning and 2 afternoon buses to assist the Marshalltown school district.
  - We operate and manage the Manson Northwest Webster School Bus System. We also contract with the Webster City and Pocahontas school systems to transport students with disabilities.
2. What event(s) prompted the coordination efforts? (For example, budget constraints, lack of

service, etc.)

- The desire of students in-town to get to school. These students are generally considered non-eligible because of their distance from the school.
- The growth of the school district population and the inability to get more school buses. We were available immediately to assist.
- We started with Manson Northwest Webster because the school could not hire a transportation director when theirs retired. The other two systems save money and they lack lift-equipped buses.

3. Would your agency have any interest in coordinating transportation needs and/or services with school districts in your area? Please check the areas that interest you. Check all that apply.

	Yes	No	Not Sure
a. Coordinated Procurement			
i. Vehicles	0	4	2
ii. Fuel*	2	3	1
iii. Driver Training	4	2	0
iv. Operational Contract	4	2	0
v. Maintenance	1	2	3
vi. Insurance	0	3	3
vii. Hardware/Software	0	5	1
viii. Other (Specify) _____	0	0	1

\* One agency was already coordinating with the county.

	Yes	No	Not Sure
b. Coordinated Functions			
i. Reservations Taking	1	5	0
ii. Scheduling/Dispatching	1	4	1
iii. Vehicle Operation	3	2	1
iv. Service Monitoring	3	2	1
v. Customer Service/Referral	3	2	1
vi. Driver Coordination	2	3	1
vii. Other (Specify) _____	0	0	0

Other:

4. Would your agency be interested in providing transportation services, under contract to a school district?

Yes: 4

No: 2

Additional Comments:

- If authorized by the city council.
- We did in the past, but budget constraints ended that relationship.
- We are currently providing service, but not under a formal contract.

5. Would your organization consider purchasing transportation services from a school district, assuming that the price and quality of services met your needs?

Yes: 1

No: 5

Additional Comments:

- The private school bus provider is not a person we would be able to work with. His goal has been to put OTA out of business.

6. Would your organization be willing to consider coordinating pick-up and drop-off points to facilitate the transfer of passengers/pupils from one transportation service to another?

Yes: 3

No: 3

7. To the extent that your agency has coordinated transit and school transportation, how would you grade the coordination effort to date?

Very Successful: 2

Successful: 1

Neutral: 1

Unsuccessful: 1

Very Unsuccessful:

Please explain the success or drawbacks of the coordination effort. (For example, saved money, more productive, gave drivers more hours, etc.)

Successes

- Our coordination shows public transit can be involved with other transit. More work for my employees, and it helps to make public transit more “needed” and integrated into the community.
- We have been able to share costs and I’m sure we have saved money for schools.

Drawbacks

- Most of the students who ride our buses have behavioral problems and therefore we have a large amount of vandalism occur on the buses they ride.

8. In the areas that you have checked off, or described previously, are there any specific organizations with which you would like to coordinate?

- Clinton Community School District, because we feel the school district busing policies are bad for public transit.
- I could easily work with Ottumwa Schools, just not with the private provider.

9. Do you feel there are any real or perceived barriers to coordination of existing transportation

services in your area? (For example, statutory barriers to pooling funds, liability concerns, “turf issues”, etc.) Use reverse side if necessary.

- Yellow bus syndrome.
- School board has been giving much bus decision-making power to the parents. They may not like public transit.
- Turf by private provider.
- Budget constraints in school district.
- Funding with a significant amount of additional coordinating.
- The idea of offering more and better service to the public, and yet not “taking over” the school buses.
- School bus drivers are paid much more per hour than we pay, so they do not want public transit taking “their” trips. They claim to be safer, but I dispute the validity of that claim.

10. Any additional comments?

### **Regional Systems**

*Including Region 6 Planning (Peoplerides), River Bend Transit, Siouxland Regional Transit System (SRTS, Region 4), Region Two Transit System, East Central Iowa Transit, 10-15 Transit, Southwest Iowa Planning Council, Region XII Council of Government, Iowa Northland Regional Transit Commission, Northeast Iowa Community Action, Regional Transit Authority (RIDES), Community Action of Southeast Iowa RTA, Southern Iowa Trolley, Heart of Iowa RTA*

1. Please describe any coordination that presently exists between your organization and any school district within your service area.

- We transport three school age children in the Iowa Falls and Alden areas. We have long distance routes that are used or vehicles available.
- Davenport schools contracts with RBT to provide transportation for pre first grade special needs students. Pleasant Valley contracts with RBT to provide transportation high school students with behavioral problems.
- Operational Contracts with Sioux City school district, LeMars, Akron, and Dakota Valley.
- We provide contract service with Charles City and Algona School districts. Demand – Response is utilized by: Clear Lake, Mason City, Northwood-Kensett, Osage, and Hampton school districts.
- Washing Company MiniBus and the Washington Community School District have a contract to provide service to those who are outside the 2-3 mile radius of the city of Washington.
- We do primary special education services for eight school districts. We also do general student services in Ottumwa and Albia.
- We provide rides for some special needs students who attend classes away from their school district. In the past we have transported some wheelchair students.
- We contract with 2 school districts, providing transportation for special needs students.
- Currently, we contract with two school districts, both of which provide service for Head



Start students on our behalf.

- School buses provide our system with services to Head Start and we provide the school systems with handicap services.
- We provide special needs transportation from the smaller school districts to the larger schools with special education classes.
- We are a brokered system and four of our contractors contract with school districts.

2. What event(s) prompted the coordination efforts? (For example, budget constraints, lack of service, etc.)

- RBT’s fleet was appropriately sized for the services needed and was more cost effective than purchasing new smaller school buses.
- Lack of service, smaller vehicles.
- Budget constraints, lack of accessible equipment, driver availability.
- Schools encouraged this partnership.
- The school districts’ inability to reach 1 – 3 special education children economically. General education service was prompted by parents’ needs.
- Schools were unable to schedule rides for special needs students.
- We were able to provide more efficient service with our smaller vehicles.
- Head Start services have been in place for over 25 years. Handicap services came about due to school not wanting to purchase lift vehicles due to cost.
- The service cost them less since they only pay for a percentage of the route instead of the whole route, where there are sheltered stops for customers that are elderly or participate in the Head Start program.
- A need for the transportation of disabled students.

3. Would your agency have any interest in coordinating transportation needs and/or services with school districts in your area? Please check the areas that interest you. Check all that apply.

	Yes	No	Not Sure
a. Coordinated Procurement			
i. Vehicles	1	6	6
ii. Fuel	2	6	5
iii. Driver Training	9	2	2
iv. Operational Contract	9	0	4
v. Maintenance	5	6	2
vi. Insurance	5	4	4
vii. Hardware/Software	2	5	6
viii. Other (Specify)_____	1	0	3

Other: Parking, Plug-in

	Yes	No	Not Sure
b. Coordinated Functions			
i. Reservations Taking	4	5	3

ii. Scheduling/Dispatching	6	4	2
iii. Vehicle Operation	6	3	3
iv. Service Monitoring	5	4	3
v. Customer Service/Referral	7	1	4
vi. Driver Coordination	5	2	4
vii. Other (Specify)_____	1	0	1

Other: Vehicle Storage

4. Would your agency be interested in providing transportation services, under contract to a school district?

Yes: 7

No:

Additional Comments:

- If the requirements are not excessive.
- We are a brokered system, so it really depends on each county involved. However, with all of the regulations, (inspections, physicals, child restraints) I doubt most would like to do it.
- We currently work with eight of 24 in our area. More is better.
- We currently have contracts with four schools.
- Presently, we have six vehicles that are inspected by the Department of Education as school buses. We also have drivers who have or are willing to acquire school bus operators permits.
- This decision would be up to the contractors.

5. Would your organization consider purchasing transportation services from a school district, assuming that the price and quality of services met your needs?

Yes: 2

No: 5

Additional Comments:

- If it benefits all involved.
- Not sure if this is possible.
- Cannot think of a situation where this would be needed, but always open to new ideas.
- We currently do.
- We would consider a possible link of service but the biggest barriers are their buses. They have bad steps, smaller seats, and no accessibility.
- Would be the decision of our board of directors.

6. Would your organization be willing to consider coordinating pick-up and drop-off points to facilitate the transfer of passengers/pupils from one transportation service to another?

Yes: 8

No: 0

Additional Comments:

- Our current issue is revenue to support.
- If possible. Depends on the provider willingness.
- If needed.
- We currently do.
- This would work great for open enrollment students or with after school activities.
- Would be the decision of our contractors.

7. To the extent that your agency has coordinated transit and school transportation, how would you grade the coordination effort to date?

Very Successful: 5

Successful: 6

Neutral: 2

Unsuccessful: 1

Very Unsuccessful:

Please explain the success or drawbacks of the coordination effort. (For example, saved money, more productive, gave drivers more hours, etc.)

Successes

- Saved the school district money. Our buses are more efficient for less passenger intensive trips.
- RBT can provide less costly service with more efficiency.
- Multi-agency coordination, more driver hours.
- Mutual benefits of saving money and making money.
- Contracted service is very expensive to provide due to regulatory constraints.
- We have quantity of students, highly productive routes, and save schools money.
- Win-win for both entities.
- We provided safe transportation to Head Start students using school district vehicles and staff that saved money. When we have provided school transportation we were filling a need not met by the school district.
- Saved money, provided a larger area of service more efficiently.
- Larger groups able to be served.

Drawbacks

- Only three to four people use shared services regionally. The potential is great but would take considerable planning and financial support.
- New head start regulations threaten to cause school districts to discontinue to coordinate services for pre-school children.

8. In the areas that you have checked off, or described previously, are there any specific organizations with which you would like to coordinate?

- No: 4.
- Private day care centers.
- Any with the need.
- School districts.
- Hospitals.
- Nursing homes.

9. Do you feel there are any real or perceived barriers to coordination of existing transportation services in your area? (For example, statutory barriers to pooling funds, liability concerns, “turf issues”, etc.) Use reverse side if necessary.

- No: 2.
- Not sure: 1.
- We both provide transportation to different clientele. Not aware of barriers to us serving the same clientele.
- Insufficient regional transit vehicles.
- Dispatch Coordination.
- Time for effort planning.
- School District budgets.
- Lack of communication between agencies.
- We were just beginning to pursue more coordinated service when the “Regional Transit-School Transportation Rules” were adopted. These rules significantly hampered our efforts.
- Not in the surrounding counties.
- Funding source requirements.
- State and federal regulations.
- Labor agreements.
- Turf.
- What appears to be everyone’s desire to own and control their own vehicle are all barriers to coordination.
- Service timing and space availability are also potential barriers.
- New head start regulations would create a real barrier to school buses providing service. Using school buses for the elderly would not work due to physical limitations of elderly accessing the buses.

10. Any additional comments?

- Head Start vehicles need some overhauls. Child restraints may make their coordination effort impossible.
- I am not sure of the benefits or problems with working with schools. If I knew more about working together with the schools I might be interested.

## APPENDIX B: IOWA ADMINISTRATIVE CODE CHAPTER 911

### CHAPTER 911 SCHOOL TRANSPORTATION SERVICES PROVIDED BY REGIONAL TRANSIT SYSTEMS

#### **Ch 911, p.1 Transportation [761] IAC 7/12/00**

#### **761—911.1(321) Purpose and information.**

**911.1(1) Purpose.** This chapter establishes standards for school transportation services provided by Iowa's regional transit systems under contract with local schools.

**911.1(2) Information.** Information and forms may be obtained from the Department of Transportation, Office of Public Transit, 800 Lincoln Way, Ames, Iowa 50010; telephone (515)239-1708.

**761—911.2(321,324A) Definitions.** For the purpose of these rules, the following definitions apply:

*“Automobile”* means a motor vehicle, except a motorcycle or motorized bicycle, designed primarily to carry nine persons or less, as defined in Iowa Code section 321.1.

*“Bus”* means a motor vehicle, excluding a trailer, designed to carry ten or more persons.

*“Contract”* means a written agreement between a public or nonpublic school or other group and a regional transit system which defines the terms and conditions under which school transportation service is to be provided. It shall not include the relationship between a regional transit system and an individual fare-paying passenger in either fixed route or demand response service.

*“Multipurpose vehicle”* means a motor vehicle designed to carry not more than ten persons, and constructed either on a truck chassis or with special features for occasional off-road operation, as defined in Iowa Code section 321.1.

*“Regional transit system”* means a regional transit system designated under Iowa Code section 324A.1 and all subcontracted providers to the designated regional transit system. It does not mean an urban transit system designated under that section.

*“School bus”* means a bus that complies with all federal motor vehicle safety standards applicable to a school bus.

*“School transportation service”* means transit service provided under contract to a public or nonpublic school or other group, including day care centers, to transport students to or from schools or school-sponsored activities.

*“Student”* means a person attending a public or nonpublic school, grades pre-kindergarten through high school.

*“Vehicle”* means an automobile, multipurpose vehicle, bus or school bus as defined in this rule.

**761—911.3(321) Services to students as part of the general public.** All services provided by regional transit systems must be open to the public. This chapter shall not be construed to restrict the use of these services by any individual fare-paying passenger, in either fixed route or demand response service.

**761—911.4(321) Contracts for nonexclusive school transportation.** As common carriers in urban transportation service, regional transit systems may contract with schools, day care providers, after school program providers, or others to provide nonexclusive school transportation service that meets the requirements of this chapter. Exclusive service contracts are prohibited.

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**761—911.5(321) Adoption of federal regulations.**

**911.5(1) Code of Federal Regulations.** The department of transportation adopts the following portions of the October 1, 1999, Code of Federal Regulations, which are referenced throughout this chapter:

- a. 49 CFR Part 38, Americans with Disabilities Act Accessibility Specifications for Transportation Vehicles.
- b. 49 CFR Part 571, Federal Motor Vehicle Safety Standards.
- c. 49 CFR Part 653, Prevention of Prohibited Drug Use in Transit Operations.
- d. 49 CFR Part 654, Prevention of Alcohol Misuse in Transit Operations.

**911.5(2) Obtaining copies of regulations.** Copies of these regulations are available from the state law library.

**761—911.6(321) Driver standards.** The following standards apply to regional transit system drivers assigned to provide school transportation service:

**911.6(1) FTA drug and alcohol testing.** Each driver is subject to the following testing for drug and alcohol usage as required by the Federal Transit Administration in 49 CFR Parts 653 and 654, including:

- a. Pre-employment testing.
- b. Reasonable suspicion testing.
- c. Post-accident testing.
- d. Random testing.
- e. Return to duty testing.
- f. Follow-up testing.

**911.6(2) Training.** Each new driver must, within the first six months of assignment and at least every 12 months thereafter, complete a course of instruction approved by the department of education, in accordance with Iowa Code section 321.376.

**911.6(3) Driving record check.** The regional transit system must review the driving record of each driver prior to employment and on an annual basis.

**911.6(4) Criminal record check.** The regional transit system must conduct a criminal records review of each driver prior to employment and on an annual basis. This review verifies that the driver has no history of child abuse or other criminal activity.

**911.6(5) Driver licensing.** Each driver must be licensed appropriately for the size and type of vehicle used as provided in Iowa Code section 321.189. A Class A, B or C commercial driver's license with passenger endorsement may be required. If a commercial driver's license is not required, a Class D (chauffeur) license with passenger endorsement is required.

**911.6(6) School bus operator's permit.** Each driver who transports students must have a school bus operator's permit issued by the department of education in accordance with Iowa Code section 321.376.

**761—911.7(321) Vehicle standards.** The following standards apply to regional transit system vehicles assigned to provide school transportation service:

**911.7(1) Vehicle construction.**

- a. Each vehicle must be constructed in compliance with the federal motor vehicle safety standards for that type of vehicle as set forth in 49 CFR Part 571. The capacity rating of automobiles and multipurpose vehicles shall not be modified or altered in any way except by the original manufacturer.
- b. On or after July 1, 2001, each bus in use must also comply with the following federal motor vehicle safety standards:

- (1) Standard No. 217, Bus Emergency Exits and Window Retention and Release. Buses purchased after January 1, 2000, shall incorporate a rear emergency exit door in meeting this standard.
- (2) Standard No. 220, School Bus Rollover Protection.
- (3) Standard No. 221, School Bus Body Joint Strength.
- (4) Standard No. 301, Fuel System Integrity.

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**911.7(2) Passenger restraint/protection.** Each automobile, multipurpose vehicle or school bus must provide passenger restraint/protection devices as required for that type of vehicle in the federal motor vehicle safety standards. Each bus must meet the standards listed in either “a” to “d” below or “e” below:

- a. Standard No. 207, Seating Systems.
- b. Standard No. 208, Occupant Crash Protection.
- c. Standard No. 209, Seat Belt Assemblies.
- d. Standard No. 210, Seat Belt Assembly Anchorages.
- e. Standard No. 222, School Bus Passenger Seating and Crash Protection.

**911.7(3) Accessibility for persons with disabilities.** Each vehicle used for students with disabilities must comply with all applicable provisions of 49 CFR Part 38.

**911.7(4) Signage.** A vehicle must not be signed as a school bus.

**911.7(5) Department of education inspection.** Every vehicle must be inspected twice annually by the department of education school bus inspectors and officers of the Iowa state patrol to determine if the vehicle meets all vehicle standards set forth in this chapter.

The department of education will notify each regional transit system of the dates and locations of scheduled inspections. Inspections must be documented on a form prescribed jointly by the departments of transportation and education.

**761—911.8(321) Maintenance.** Regional transit system vehicles assigned to provide school transportation service must be maintained in a safe and operable condition. The following maintenance practices apply:

**911.8(1) FTA drug and alcohol testing of mechanics.** All personnel providing maintenance services on regional transit system vehicles are subject to drug and alcohol testing as required by the Federal Transit Administration in 49 CFR Parts 653 and 654.

**911.8(2) Daily pre-trip vehicle inspections.** Drivers of these vehicles must perform daily pre-trip vehicle inspections using a form prescribed by the department of transportation. Regional transit systems must retain daily pre-trip vehicle inspection reports and documentation of follow-up maintenance for one year.

**911.8(3) Annual vehicle inspection.** Maintenance personnel must annually inspect each vehicle using a form prescribed by the department of transportation. Regional transit systems must retain annual inspection forms for one year.

**761—911.9(321) Safety equipment.** Regional transit system vehicles assigned to provide school transportation service must carry the following safety equipment:

**911.9(1) Communication equipment.** Each vehicle must be equipped with a two-way radio or cellular telephone capable of emergency communication between the vehicle and the regional transit system’s base of operations.

**911.9(2) First-aid/body fluids cleanup kit(s).** Each vehicle must be equipped with a first-aid kit of sufficient size and content for the capacity of the vehicle and, in addition, be equipped with a body fluid cleanup kit. These may be provided as separate kits or combined into one kit. The

contents of the kit(s) must be contained in one or more moisture-proof and dustproof containers mounted in an accessible location within the driver's compartment and must be removable from the vehicle in an emergency.

**911.9(3) *Fire extinguisher.*** Each bus or school bus must be equipped with a minimum 5-pound capacity, dry chemical fire extinguisher. Each automobile and multipurpose vehicle must be equipped with an extinguisher of at least 2.5-pound capacity. Extinguishers must have a 2A-10BC rating.

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**761—911.10(321) *Operating policies.*** School transportation services provided by regional transit systems must be designed to maximize the safety of student riders and must, at a minimum, meet the following standards:

**911.10(1) *Passenger loading/unloading.*** Unless prohibited by law, students transported in vehicles other than school buses must be loaded and unloaded on the same side of the street as their residence or other origin or destination. Students may be released only to the custody of a designated school official, parent or guardian, employee of the department of human services, or law enforcement official, unless other arrangements are made in advance.

**911.10(2) *Student passenger behavior and discipline policy.*** Each contract for school transportation service must include a policy relating to the behavior of students while they ride in vehicles. The regional transit system or school must provide instruction to all drivers assigned to school transportation service relative to the content and application of the policy. If a student is removed from a vehicle for one or more policy violations, the student may be released only to the custody of a school official, parent or guardian, employee of the department of human services or a law enforcement officer. In all cases, the school must be notified immediately of any such disciplinary action, and a written report must be filed with the school describing the circumstances resulting in the removal.

**911.10(3) *Standing prohibited.*** Under no circumstances shall a student be permitted or required to stand while a vehicle is in motion. Every student must be provided an appropriate seat at all times.

**911.10(4) *Stops at rail crossings.*** Every driver must make a complete stop before crossing the tracks of any railroad crossing, in accordance with Iowa Code section 321.343. In the case of a bus or school bus, the driver must open the service entrance door, look and listen for approaching trains and proceed to cross the tracks only when the driver can do so safely. No stop is needed where the crossing is posted with an exempt sign.

**911.10(5) *Accident reporting.*** If a driver is involved in a collision or other incident causing or having a potential to cause injuries to students, the regional transit system must immediately notify the school of the incident. The regional transit system must file all accident reports required by law. In addition, the regional transit system must complete a school bus accident report on a form prescribed by the department of education and submit it to the school or the department of education.

**911.10(6) *Passenger instruction/evacuation drills.*** Each school must provide students assigned to school transportation service with school bus passenger safety instruction and emergency evacuation drills at least twice each school year. These evacuation drills must involve a vehicle of the same type used to provide the school transportation service.

**911.10(7) *Special training for drivers carrying students with disabilities.*** Each school contracting for school transportation services for a student with one or more disabilities must provide the regional transit system with information on any special needs of the student and, if



necessary, provide the assigned driver with appropriate information and training on how to appropriately respond to the needs of the student during transit and in the event of an emergency. These rules are intended to implement Iowa Code sections 321.189, 321.343, 321.376 and 324A.1 and Iowa Code Supplement sections 321.1 and 321.377.

[Filed 6/22/00, Notice 4/19/00—published 7/12/00, effective 8/16/00]

CHAPTERS 912 to 919

Reserved

## APPENDIX C: DRIVER QUALIFICATIONS FOR SCHOOL BUSES

**281—43.14(285) Driver age.** School bus drivers must be at least 18 years of age on or before August 1 preceding the opening of the school year for which a school bus driver's permit is required.

**281—43.15(285) Physical fitness.** Applicants for the school bus driver's permit must submit each year to the transportation consultant at the department of education, a signed report (Form TR-F-6-497B) of a physical examination by a licensed physician and surgeon, osteopathic physician and surgeon, osteopath, or qualified doctor of chiropractic, licensed physician assistant, or advanced registered nurse practitioner, indicating physical fitness as follows:

**43.15(1)** Sufficient physical capability to operate the bus effectively and to render assistance to the passengers in case of illness or injury.

**43.15(2)** Less than full and normal use of both hands, both arms, both feet or both legs may disqualify the applicant. Individual evaluations will be made for applicants and requirements may be waived upon submission of a written statement from the superintendent of schools attesting to the ability of the applicant to safely perform the duties of a school bus driver. The superintendent or designee shall evaluate the applicant's ability in the operation of a school bus including all safety equipment, in providing assistance to passengers in evacuation of the school bus and in the performance of other duties required of a school bus driver.

**43.15(3)** Freedom from any communicable disease, such as tuberculosis.

**43.15(4)** Each doctor of chiropractic licensed as of July 1, 1974, shall affirm on each certificate of physical examination completed that the affidavit required by Iowa Code section 151.8 is on file with the Iowa board of chiropractic examiners.

**281—43.17(285) Additional fitness requirements.** Freedom from mental, nervous, organic, or functional disease; including but not limited to epilepsy, paralysis, insanity, abnormal blood pressure, heart ailments, or any disease that may cause a tendency to fainting. Blood pressure in excess of 170 (systolic) and 100 (diastolic) taken in a sitting position, or diabetes, will disqualify the applicant in the absence of a qualified physician's recommendation and satisfactory statement covering the significance of the condition. After the application has been approved and the school bus driver's permit has been issued, if at any time the driver does not meet all of the stated requirements, the superintendent or school administrator shall not permit the person to drive a school bus until the deficiency has been corrected. The department of education may issue a temporary school bus driver's permit based upon an evaluation of the individual applications.

**281—43.18(285) Mental fitness.** The driver must be mentally alert and of at least normal intelligence.

**281—43.19(285) Vision requirements.** The applicant must have at least 20/40 vision in each eye, either normally or after correction. If the vision in one eye is near normal, visual acuity within the limits of 20/60 in the other eye will be acceptable for qualification. If corrective lenses are required to bring vision within the aforesaid limits they must be worn by the licensee at all times when operating the bus. Tunnel or barrel vision will disqualify an applicant. The applicant must have a field of vision of at least 150 degrees. The applicant must have near-normal depth perception and have no color deficiency which would interfere with safe driving.

**281—43.20(285) Hearing requirements.** Any applicant experiencing difficulty in hearing or any applicant having a known hearing loss shall submit the results and evaluation of an annual audiometric measurement of hearing administered by a licensed audiologist or school

audiologist/hearing clinician. The applicant will be deemed disqualified to drive a school bus if the average hearing level for 500, 1000 and 2000 Hz in the better ear exceeds 40dB hearing level (ANSI, 1969). If the above requirements are met with the use of a hearing aid, the applicant is restricted to wearing and utilizing an adequately functioning hearing aid while driving a school bus.

School bus driver qualification information obtained from the Iowa Department of Education, <http://www.state.ia.us/educate/legis.html>.

## **APPENDIX D: HEAD START TRANSPORTATION RULES DAMAGING TRANSPORTATION COORDINATION EFFORTS IN IOWA**

In January 2001, new rules governing the provision of transportation services under the federal Head Start program were adopted by the Administration for Children and Families of the U.S. Department of Health and Human Services (HHS). Those rules will have a detrimental effect on Iowa's pioneering efforts to coordinate publicly funded passenger transportation. The Head Start rules mandate that by January, 2006, Head Start participants may only be transported in yellow school buses or in vehicles which differ from school buses only in color and lack of stop arms or flashing lights. If this provision is allowed to go into effect, not only will it impose significant unjustified costs on Iowa's local Head Start programs, but it will pull a significant part out of Iowa's coordinated community transportation programs, which increase costs and could possibly jeopardize transportation services for other members of Iowa's local communities.

Iowa has a long history of coordinating publicly funded passenger transportation in order to maximize the benefits of the public dollars spent in terms of services to the people of the state, to avoid having individuals needing transportation "falling through the cracks" because they don't happen to be eligible to ride on the vehicles being operated with public funds, and to avoid duplication of effort with various programs all paying for equipment and services to fund limited groups within a community. Iowa is one of only a few states that, has been successful over the years in integrating the Head Start participants into coordinated community transportation programs that also service sheltered workshop clients, seniors attending congregate meals sites, public school and daycare students, and commuters and the general public. By coordinating publicly funded transportation services, Iowa's transit systems have reduced the number of vehicles that taxpayers are forced to buy and have also greatly improved the level of professionalism and safety of the services compared to what exists elsewhere.

The Head Start transportation rules were issued in response to the lack of professionalism and safety that federal officials observed in many of the local Head Start transportation programs around the country. As documented in the explanatory materials that HHS published with the original proposed rule, in many localities there was no training, no maintenance of equipment, and no standards of any kind.

This was never the case in Iowa. By integrating Head Start services into Iowa's public transit systems, the Head start participants have long benefited from trained drivers that are screened for unsafe driving records or criminal records as well as for drug or alcohol use. After the Iowa legislature confirmed the ability of regional transit systems to transport public school students, the Iowa Departments of Transportation and Education jointly developed specific standards for public transit vehicles, drivers, maintenance, training, and operating procedures to be met when transporting students, including Head Start participants.

Under the Iowa student transportation rules, regional transit vehicles used for student transportation must meet all of the federal motor vehicle safety standards for public buses and also most of the federal safety standards for school buses. One school bus standard that was intentionally not included in Iowa's rules was the extremely close seat spacing or "compartmentalization" that school buses rely on for protection of student passengers in a collision, but which renders such vehicles virtually unusable and potentially unsafe for adult

riders. Instead, Iowa requires that regional transit vehicles carrying students must meet the federal seat belt and child restraint standards.

Head Start's transportation rules largely parallel Iowa's rules for transportation of students aboard regional transit vehicles. While there are minor differences, it is Head Start's requirement that even the "allowable alternative vehicles" must have the school bus style compartmentalized seating, which ultimately threatens to unravel all of Iowa's accomplishments in integrating Head Start transportation services with the transportation service to other human service client groups and with services for the general citizenry.

When HHS first proposed its Head Start transportation rule, there was a great deal of comment submitted from across the nation, raising concerns about the proposed rules detrimental effect on existing and potential effort to coordinate transportation services. The final rule was delayed for some time. When the final rule was issued, HHS indicated that they had responded to these concerns by adding the provisions for "allowable alternative vehicles" and by including language encouraging local Head Start programs to look into the possibility of coordinating with other agencies. Unfortunately, the definition of allowable alternative vehicles contained in the rule did not really respond to the concerns, since it still requires the tight school bus seating which makes the vehicles inappropriate for adult passengers and potentially even unsafe for adults in a collision.

We continue to seek a change to the rule to eliminate the requirement for school bus style compartmentalized seating on the allowable alternative vehicles, in order to better facilitate coordination of Head Start transportation with transportation programs serving adults and mixed clientele. If HHS cannot be convinced to make this change, we seek congressional relief through legislative language that would state that transit vehicles meeting the Iowa standards for student transportation shall be considered to be "allowable alternative vehicles" under the Head Start rule.

Although the effective date of the provision establishing specific standards for vehicles transporting Head Start participants is not until January 2006, it is already causing problems. Local Head Start agencies are unable to wait to the last minute to start acquiring a fleet of vehicles meeting the rules standards, and as they purchase this equipment, they are dropping out of the coordinated transportation programs.

The Iowa Department of Transportation has included this issue as part of their federal agenda for the past several years, dating back to when the original rule proposal. Unfortunately publicity about HHS adding a provision for "allowable alternative vehicles" to the final rules led many to assume that the issue had been favorably resolved.

Recently, the Iowa Public Transit Association adopted a resolution requesting congressional review of the issue and relief from the anti-coordination aspects of the Head Start rule, but it did not provide much explanation of the issue.

The attached draft letter to the Iowa Congressional delegation was intended to provide the delegation with some background on the issue as well as suggesting a possible way to resolve this issue favorably.

Interestingly, the Head Start rules anti-coordination impact doesn't just affect public transit. HHS apparently did not buy the school bus industry's claims that compartmentalized seating is sufficient to minimize injuries to students aboard school buses, as the Head Start rule requires installation and use of seatbelts on all vehicles used for Head start transportation. This is causing a problem in areas where, rather than coordinating with public transit, Head Start was coordinating with public schools to have Head Start participants ride the school buses since those are not equipped with seatbelts.

No one is arguing that there wasn't a need to set some standards for Head Start transportation to avoid the problems that existed in various localities around the nation, but the rules in their current form go against the public interest. Unfortunately, however, the bureaucrats responsible for writing the new rules chose to ignore the good programs around the country and to require a specific set of features that tears apart the cooperative arrangements that many local Head Start programs had already set up to provide safe and reliable transportation for their program participants.

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