Pee Dee Regional Human Services Transportation Coordination Plan

Prepared by

URS

for the

South Carolina Department of Transportation

and the

Pee Dee Council of Governments

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Section 1: Purpose and Background of Coordination Plan

The purpose of this plan is to ensure that federal requirements regarding coordination are satisfied as well as to assist the Pee Dee region in its continuing efforts to develop an efficient and effective transit service network.

1.1 Background[1]

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) created a requirement that a locally-developed, coordinated public transit/human service planning process and an initial plan be developed by 2007 as a condition of receiving funding for certain programs directed at meeting the needs of older individuals, persons with disabilities and low-income persons. Plans must be developed through a process that includes representatives of public, private, and non-profit transportation and human service providers, as well as the general public. Complete plans, including coordination with the full range of existing human service transportation providers, are required by federal Fiscal Year (FY) 2008.

The South Carolina Department of Transportation (SCDOT) through the consulting team of TranSystems/URS and in partnership with Councils of Governments (COGs) and interested stakeholders has developed regional coordinated plans that meet the requirements of SAFETEA-LU and the Federal Coordinating Council on Access and Mobility (CCAM). While at a minimum projects funded under the Federal Transit Administration (FTA) formula programs for Sections 5310, 5316 and 5317 must be derived from a coordinated plan, the coordinated plans will incorporate activities offered under other programs sponsored by federal, state and local agencies. These programs would include, as appropriate, FTA's Section 5307 and 5311 programs as well as Temporary Assistance for Needy Families (TANF), Workforce Investment Act (WIA), Vocational Rehabilitation, Medicaid, Community Action (CAP), Independent Living Centers, and Agency on Aging (AoA) programs among others.

On October 1, 2006, the CCAM released the following policy statement:

> *"Member agencies of the Federal Coordinating Council on Access and Mobility resolve that federally-assisted grantees that have significant involvement in providing resources and engage in transportation delivery should participate in a local coordinated human services transportation planning process and develop plans to achieve the objectives to reduce duplication, increase service efficiency and expand access for the transportation-disadvantaged populations as stated in Executive Order 13330."*

SCDOT has attempted to facilitate this by developing a plan in each region of the state and inviting all of the agencies that meet the letter and intent of this policy to the table and encouraging their participation throughout the plan development process.

[1] Much of this section was written by the South Carolina Department of Transportation (SCDOT).

Development and content of coordinated plans are intended to be specific to the needs and issues of each region. The coordinated plans will be developed to address intra- and inter-regional needs and issues, and in a manner that allows the COGs, concurrent with regional long range transportation plan (LRTP) updates, to directly update the regional coordinated plan. Further, the coordinated plans will be developed in a manner that allows the COGs to adapt and expand the plans to incorporate programs and initiatives specific to their regions.

Each coordinated plan's development will, at a minimum:

- Assess and document transportation needs in each region for individuals with disabilities, older adults, and persons with limited incomes;
- Inventory available services in each region and identify areas of redundancy and gaps in service;
- Identify and document restrictions on eligibility for funding;
- Identify and document short- and long-range strategies in each region to address the identified gaps in service, including mobility management strategies;
- Identify and document technological resources currently available and appropriate for coordination of transportation services;
- Identify and document coordination actions in each region to eliminate or reduce duplication in services and strategies for more efficient utilization of resources; and
- Document and prioritize implementation strategies to increase coordination of transportation services in each region.

SAFETEA-LU also allows two significant changes to the standard procedures defined by previous legislation. Under the new regulations, project proponents are allowed to use dollars other federal programs as match to FTA funds, and expenses related to mobility management can be considered a capital expense. These are two significant changes that allow greater flexibility for budgeting and financing human service transportation.

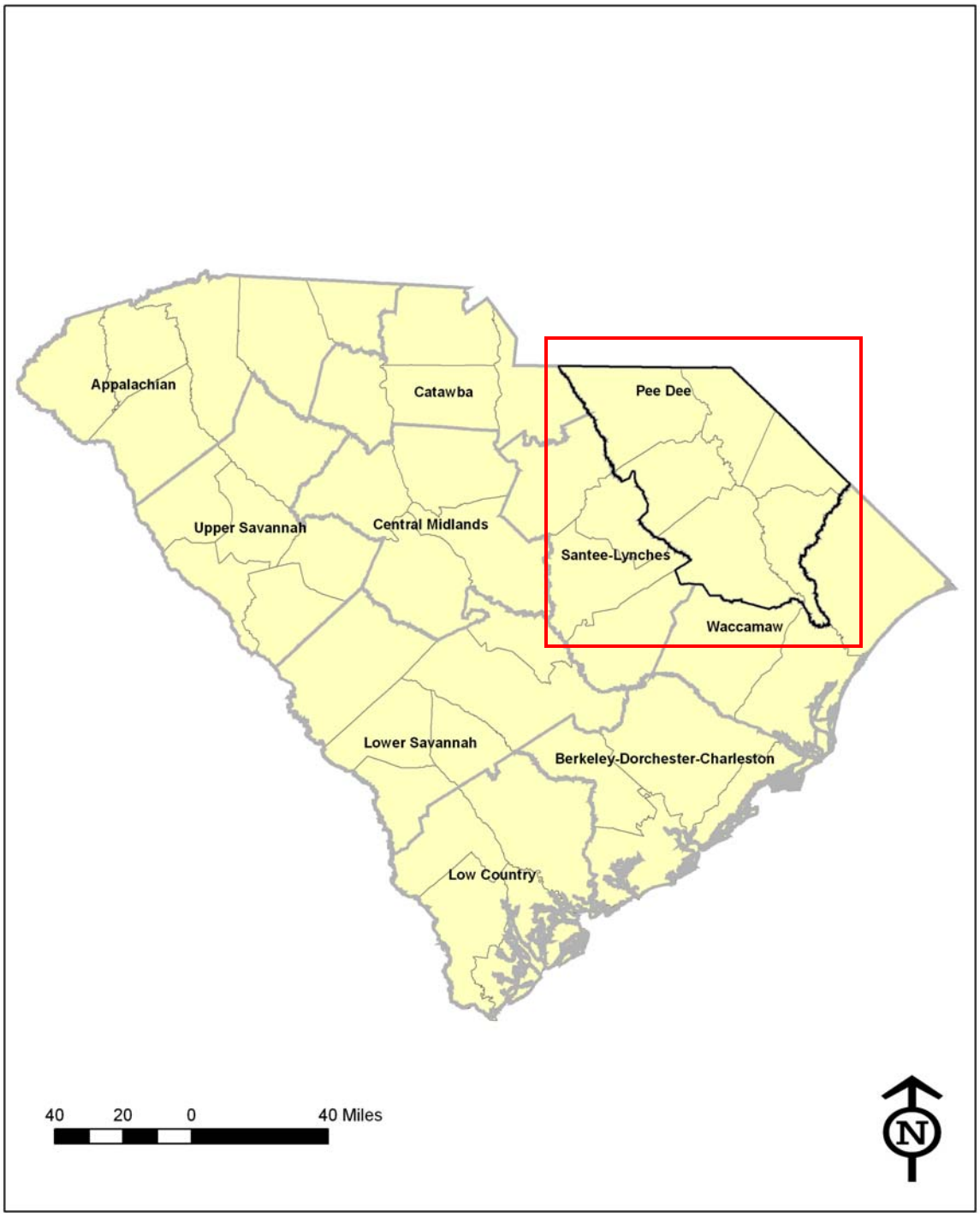
1.2 Planning Process

The consultant team of TranSystems/URS, with oversight from SCDOT and a committee of COG representatives, has developed ten regional coordinated plans, one plan for each of South Carolina's COG regions (refer to Figure 1). The regional coordination plans are intended to meet the requirements of SAFETEA-LU and the guidance detailed in the Federal Register Notice dated March 29, 2007 entitled, "Elderly Individuals and Individuals With Disabilities, Job Access and Reverse Commute, New Freedom Programs: Final Circulars effective May 1, 2007."

The development of the Pee Dee COG plan involved three basic steps:

1. Developing an inventory of services in the region as well as a sense of transportation needs.
2. Development of strategies and actions.
3. Development of the regional plan document.

Figure 1: South Carolina's Ten Council of Government (COG) Regions



Source: *South Carolina Department of Transportation*

At each step, SCDOT and its consultant team met with representatives of each COG region to solicit input and feedback.

This regional coordination plan also benefits from a parallel statewide planning effort undertaken by SCDOT. The statewide transportation plan's transit element involves a significant public outreach, including key stakeholder interviews, focus groups, and general public attitudinal surveys. In addition, socio-economic and demographic data as well as provider statistics were compiled. These data will be used selectively in this regional coordination plan.

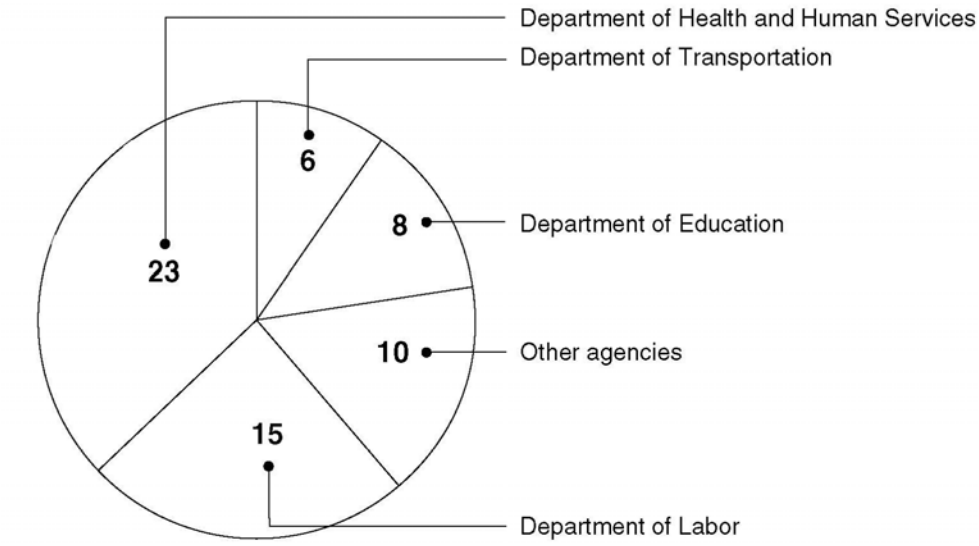
1.3 Funding Barriers to Coordination

One area of common concern to all regions is the role of federal and state funding in promoting coordination. In this regard, this section analyzes to what extent federal funds inhibit coordination. Included in this discussion is a brief review of important transportation funding programs and associated regulations that could affect coordinated transit. As will be seen, these programs do not restrict coordination through regulations. However, there are practical issues that make coordination challenging but not insurmountable.

1.3.1 Regulatory Review

In June 2003, the U.S. General Accounting Office (GAO) issued a study on federal transportation funding and coordination entitled *Transportation-Disadvantaged Populations*. The study reported that there were 62 federal programs that fund transportation. Of those, 16 are regularly used for public transportation, with six from the USDOT through the FTA (refer to Figure 2).

Figure 2: Sources of Federal Transportation Funds



Source: *Transportation-Disadvantaged Populations, Figure 1, page 9, USGAO, June 2003.*

The ten, non-DOT funding programs most commonly used for transportation are:

1. Transitional Assistance for Needy Families (TANF) - provides assistance to families with children. Such assistance can include help in funding transportation needs.
2. Vocational Rehabilitation - targets persons with disabilities and provides a variety of vocational services including transportation.
3. Medicaid - assists people with accessing medical services including transportation to such services.
4. Head Start - assists pre-school children with a variety of services including education readiness, health care, and transportation to/from such services.
5. Older Americans Act - assists in developing services for older people which include nutrition services, senior centers, and transportation.
6. Workforce Investment Act (WIA): Adults - provides job skill training services as well as transportation to/from such services.
7. WIA: Youth - provides job skill training services to youth as well as transportation to/from such services.
8. WIA: Displaced Workers - provides job skill training services as well as transportation to/from such services.
9. Program for Native Americans (under Older Americans Act) - provides a variety of social service funding (e.g., nutrition and caregiver services) for Native Americans.
10. Senior Community Service Employment program - provides work opportunities for older Americans.[2]

In addition, these six US DOT programs were listed among the top human service transportation funding programs:

1. Capital Grants (Section 5309)
2. Urbanized Area Formula Program (Section 5307)
3. Nonurbanized Area Formula Program (Section 5311)
4. Job Access and Reverse Commute (Section 5316)
5. Over-the-Road Bus Program (Section 3038)
6. Transportation for Elderly and Persons with Disabilities (Section 5310)

Table 1 summarizes these 16 programs. In addition, one more program is included in the table that was not part of the 2003 GAO study. Since that study, the "New Freedom Program" was initiated. The New Freedom Program (Section 5317) is intended to provide operating and capital assistance to services that go beyond Americans with Disabilities Act (ADA) complementary paratransit requirements.

Table 1 explains, in brief, each of the top 16 transportation programs (plus the New Freedom Program), including the responsible federal agency, typical recipients, target population, and the scope of funding. As shown in the table, each funding program covers a variety of transportation costs. Some programs are targeted to specific populations while others (such as many of the USDOT programs) are open to the

[2]Table 1, page 10 of *Transportation-Disadvantaged Populations, Figure 1, page 9, USGAO, June 2003.*

general public. Those programs that are intended for specific populations must only serve those populations.

In South Carolina, many of the non-DOT funding programs are administered through the state. Only the Head Start Program provides funds directly from the federal government directly to a local entity. The USDOT programs are generally handled through the state or directed toward designated recipients.

In February 2004, Executive Order 13330 (Human Service Transportation Coordination) was issued and "…direct[ed] Federal agencies funding human services transportation services to undertake efforts to reduce transportation service duplication, increase efficient transportation delivery, and expand transportation access for seniors, persons with disabilities, children, low-income persons and others…" This order reinforces that federal programs, through regulation, do not prohibit coordination and the sharing of resources.

While funds at the federal level would appear to offer no regulatory barriers to coordination, the administration of those funds at the state and local levels were also reviewed to determine if those governmental units created any barriers to coordination.

The following state entities were contacted to determine whether the State of South Carolina and others placed any requirements that would burden coordination:

- Lieutenant Governor's Office on Aging (Older Americans Act programs)
- South Carolina Commission for Minority Affairs (Older Americans Act as applied to Native Americans)
- Department of Health and Human Services (Medicaid)

Based on discussions and research with these agencies, none of the non-DOT transportation programs, as administered, imposed any restrictions that would prevent coordination.

However, because each program has an intended targeted population, transportation services provided under the given program must honor the regulatory intent. While this presents a challenge, it does not, per se, prohibit coordination.

Table 1: Summary of Top Federal Human Service Transportation Funding Programs (Continued on next page)

Program	Responsible Agency	Recipients	Target Population	Transportation Funding	Coordination Issues	Other Information
Capital Grants (Section 5309)	US DOT (FTA)	Designated Recipients and States.	General population	Wide variety of capital funding including for vehicles and facilities.		Congressional earmarks popular method in securing this funding.
Urbanized Area Formula Program (Section 5307)	US DOT (FTA)	Designated Recipients in urban areas over 50,000 in population.	General population	Wide variety of funding for capital, planning and operations (for areas with less than 200,000 in population)		
Nonurbanized Formula Program (Section 5311)	US DOT (FTA)	For States to assist rural areas under 50,000 in population. Recipients can be public agencies, non-profit agencies, and Native American Tribes.	General population	Wide variety of funding for capital, planning and operations.		
Job Access and Reverse Commute (Section 5316)	US DOT (FTA)	Local governmental agencies and non-profit organizations.	General population of workers with nontraditional work schedules.	Wide variety of funding for capital and operations.		
New Freedom Program (Section 5317)	US DOT (FTA)	Designated Recipients and States.	Persons with disabilities	Operating and capital assistance that go beyond ADA requirements		
Over-the-Road Bus Program/Over-the-Road Bus Accessibility (Section 3038)	US DOT (FTA)	Private operators of over-the-road buses	General population	Capital projects relating to improving accessibility including retrofit of lifts and the purchase of new vehicles.		
Transportation for Elderly and Persons with Disabilities (Section 5310)	US DOT (FTA)	States on behalf local recipients such as non-profit and public agencies	Elderly and persons with disabilities	Mainly capital though services can be purchased if through a contract.		
Transitional Assistance for Needy Families (TANF)	US Department of Health and Human Services (HHS)	Payments directly to clients	Persons on Welfare looking for unsubsidized employment	Gas vouchers, bus tokens, car repairs, $0 down/0% car loans, some contracts with Transportation providers	Clients living in rural areas, 2nd and 3rd shift needs, need to take children to day care	No specific regulations dealing with transportation

Program	Responsible Agency	Recipients	Target Population	Transportation Funding	Coordination Issues	Other Information
Vocational Rehabilitation Department	US Department of Education	Payments directly to clients	Persons with a physical or mental disability that is an impediment to employment	Up to the individual client, although the program is described as a gas money or bus ticket program	No statutory or regulatory issues noted. There are certain options that they choose not to do to "stretch" funds.	Issues with rural areas where there is no public transportation services
Medicaid	US Department of HHS (Medicaid)	DSN Boards (In South Carolina a portion of the revenue for transportation is from State General Funds)	MA eligible with physical, social or mental disability	Provided directly by DSN for residential clients. DSN's may contract with transit providers for community based customers	Unique needs of clients, specifically the need for van aides to ride with clients due to behavioral issues.	Since mainstreaming is an ultimate goal, a client could be trained to use transit and community placements try to take into account bus service
Medicaid, Title 19	US Department of HHS	The South Carolina Department of Human Services has recently converted this program to a brokerage system	Low-income households with need for non-emergency medical transportation	Brokers are paid a capitated rate, based on the total number of eligible clients	Program allows client to choose the facility where they will receive care, which can lead to long trips	
Head Start	US Department of HHS	Direct to agencies	Pre-school children (3 to 4 years of age)	Agencies may operate own service or contract	No restrictions, though vehicles and needs of children may be in conflict with adults	
Older Americans Act	US Department of HHS		Seniors			
Workforce Investment Act (3)	US Department of Labor	State works with regions which has contracts with educational institutions.	Unemployed, under employed workers	Provides compensation for transportation costs which can be for private automobile as well as public transit.	None.	Job training; WIA has three programs targeting dislocated workers, adult and youth services.
Program for Native Americans, Alaskan Native, and Native Hawaiian Elders	US Department of HHS (Older Americans Act)	US provides grants directly to Federally recognized tribes	Native American Seniors			Only one tribe in South Carolina (Catawba); 23 other tribes not recognized.
Senior Community Service Employment Program	Department of Labor, Education and Training Administration	Individuals age 55 and older	Seniors needing job training or re-training	Can fund a variety of transportation costs including gas money and bus fares.		

1.3.2 Non-regulatory Challenges

While regulatory factors do not prevent different social programs from sharing resources, there are practical and programmatic considerations that can make coordination challenging. Some of these are service delivery issues, and others relate to administrative issues.

Service delivery related issues include special requirements imposed by certain funding streams that are unique and not common to other funding streams. For example, Head Start requires on-vehicle monitors and use of safety restraints for passengers. These requirements are not typical with general public services funded by FTA. Thus, for an operator of FTA-only funded services, transporting a Head Start client would require these additional features, creating additional expense.

Administrative-related issues refer to the documentation of the use of a funding stream's dollars. For example, Medicaid only pays for medical-related transportation. A service provider who transports the general public as well as a Medicaid traveler would need to document to Medicaid the incremental cost of the trip. This would demonstrate to Medicaid that it is paying for only its share of the service. While a cost allocation formula can overcome this, this still presents an administrative hurdle in providing shared services.

1.3.3 Conclusion

This review found that solely on a regulatory basis, federal transportation funding does not, per se, prohibit or restrict coordination. However, some programs present service delivery and administrative issues that require creative thinking and tenacity to overcome practical and programmatic challenges to sharing resources.

1.4 Organization of the Document

This regional plan has these four main parts:

1. *Section 2: Introducing the Pee Dee Region* profiles region's population and service providers. It also contains information regarding transit needs in the region.
2. *Section 3: State of Coordination* examines current efforts at human service transportation coordination and explores some of the barriers and opportunities to further coordination.
3. *Section 4: Coordination Strategies and Actions* provide initial ideas for the region to continue its development of coordinated transit.
4. *Section 5: Next Steps* provides direction for the region in implementing the strategies and actions from Section 4.

Section 2: Introducing the Pee Dee Region

The Pee Dee region consists of six counties in northeastern South Carolina: Chesterfield, Darlington, Dillon, Florence, Marion, and Marlboro (refer to Figure 1). This section provides a demographic and service profile of the region as well as an identification of needs.

2.1 Profile of Region[6]

The Pee Dee region is comprised of six counties in center of South Carolina: Chesterfield, Darlington, Dillon, Florence, Marion, and Marlboro.

Overall Population

According to U.S. Census Bureau estimates, in 2006, the combined population of the Pee Dee region exceeded 336,800 people. Florence was the region's largest county with 131,300 persons, and Marlboro was its smallest with 29,200. Between 2000 and 2006, all the region's counties grew at a slower rate than was found statewide (7.7 percent). Florence County grew the fastest, at a rate of 4.4 percent, while Marion lost population, declining 2.2 percent. The Pee Dee region's growth during this period was a modest 1.8 percent.

Elderly Population

In 2005, persons age 65 years and over made up 12.4 percent of South Carolina's population. In the Pee Dee region, persons age 65 and over comprised 12.2 percent of the population. Marion County had the highest proportion of elderly persons at 12.7 percent. Chesterfield County's proportion of persons age 65 and over equaled the statewide average of 12.4 percent. The remaining counties have smaller proportions of elderly persons than is found statewide.

Disabled Population

According to the 2000 U.S. Census, 810,857 persons age five and over were identified with a disability in South Carolina, representing approximately 22.2 percent of total population in this cohort. The greatest proportion of persons identified with a disability is found in persons age 65 and over, 48.5 percent in 2000. The Pee Dee region had a greater proportion of persons with disabilities than was found statewide, 25.3 percent (76,592 persons). Dillon County had the greatest percentage of disabled persons at 28.4 percent (7,985 persons), while Florence County has the smallest proportion with 23.8 percent (27,430 persons). The proportion of disabled persons in Marlboro, Marion, Darlington and Chesterfield Counties was 26.7 percent (6,726 persons), 26.4 percent (8,633 persons), 26.1 percent (16,184 persons) and 24.5 percent (9,634 persons), respectively.

[6] This section is from the Statewide Transportation Plan, 2007.

Persons Below the Poverty Level

In 2003, 13.8 percent of South Carolina's population was living in poverty. All six counties in the Pee Dee region had higher proportions of residents in living in poverty than found statewide. Marion County had the highest proportion of persons in poverty at 20.5 percent of the population, and Florence County had the lowest at 16.3 percent.

Median Household Income

In 2003, the median household income in South Carolina was $38,003. All six of the region's counties had median household incomes below the statewide average. Florence County had the region's highest median income level at $34,903, and Marion County had the lowest at $26,232.

Change in Daytime Population

Florence County is the only Pee Dee region county to experience a daily increase in daytime population, while the remaining counties have daily decreases. Florence County gains 5.8 percent in daytime population due to commuting, illustrating its role as the region's economic center. On the other hand, Marlboro, Dillon, and Darlington Counties lose 7.5 percent, 7.1 percent, and 6.4 percent of their populations, respectively.

Demographic Summary

The Pee Dee region is largely rural, with Florence serving as the major economic center. The region as a whole is experiencing only modest growth, with several areas declining in population. Although the percentage of elderly in the Pee Dee region is comparable to that of the rest of the state, the region has a higher percentage of persons living in poverty. These characteristics illustrate that most of the transit needs in the region are focused on connecting rural residents to basic services.

2.2 Services[7]

The Pee Dee Regional Transportation Authority (PDRTA) is the lone public transit provider in the region, serving the entire six-county Pee Dee region and a small portion of Lee County. PDRTA provides a limited fixed route service in the Florence urbanized area, and a substantial number of commuter-oriented routes within the region as well as routes connecting points in the region to employment opportunities in Myrtle Beach. PDRTA also offers demand response services through contractual arrangements with a number of human service agencies in the region.

Regional Overview

PDRTA had 79 vehicles actively providing service in FY 2005, continuing a declining trend from recent years. In FY 2005, the system provided approximately 650,000 passenger trips.

[7] From the Statewide Transportation Plan, 2007.

Table 2 illustrates the trends in the number of active vehicles providing service. As show in the table, the fleet size shrank by more than 50 percent between FY 2002 and FY 2005, due to significant service cuts. The fleet size has been reduced for all types of services, but the demand response service has experienced the greatest reduction.

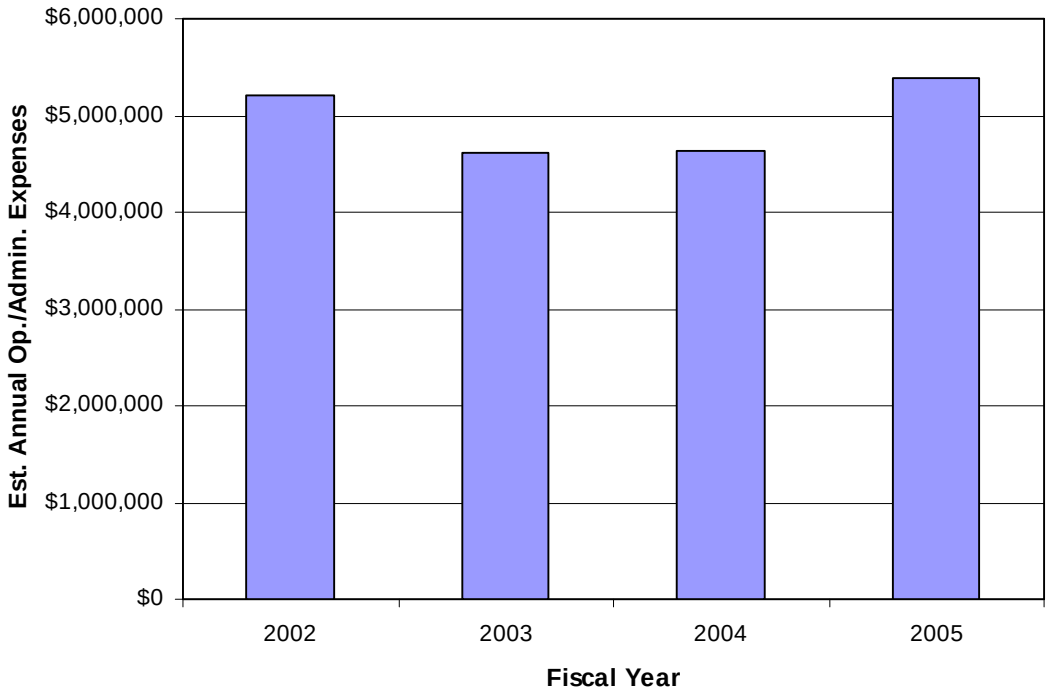
Table 2: Region Composite Vehicles in Maximum Service (FY 2002 to FY 2005)

	Fiscal Year			
Area	2002	2003	2004	2005
Fixed Route	12	4	3	1
Demand Response	127	72	80	55
Other	31	24	33	23
Totals	170	100	116	79

Source: *Data by SCDOT*

The estimated annual operating costs of PDRTA totaled approximately $5.4 million in FY 2005. As shown in Figure 3, operating costs have remained relatively stable over the four-year period between FY 2002 and FY 2005 even though the fleet size has been reduced significantly.

Figure 3: Annual Operating Expenses (Region Totals FY 2002 to FY 2005)



Source: *Data by SCDOT*

Trends in Ridership and Amount of Service Provided

Transit ridership has grown in the Pee Dee region during the analysis period, despite the reduction in the hours and miles of service provided, indicating that PDRTA is making better use of its fleet and increasing the efficiency of its existing services. Tables 3 through 5 illustrate composite data for ridership, vehicle miles of service, and

vehicle hours of service, broken down by type of service as well as by urban and rural setting.

Table 3 shows ridership by type of service (fixed route, demand response, other) as well as by geographic area (urban versus rural). This table shows that cuts in service for fixed route service occurred between 2002 and 2005, and that ridership growth occurred primarily in the rural areas on demand response and other service vehicles.

Table 3: Pee Dee Region Composite Passengers by Service Type and Geographic Area (FY 2002 to FY 2005)

	Fiscal Year			
Service Type	2002	2003	2004	2005
Fixed Route	93,628	21,484	9,379	12,956
Demand Response	321,760	370,165	367,710	435,190
Other	60,196	145,468	148,095	199,614
Totals	475,584	537,117	525,184	647,760

	Fiscal Year			
Area	2002	2003	2004	2005
Urban	99,699	50,951	33,154	56,555
Rural	375,885	486,166	492,030	591,205
Totals	475,584	537,117	525,184	647,760

Source: *Data by SCDOT*

Tables 4 and 5 show the amount of service provided in terms of vehicle miles and hours, respectively. Service provided is shown both for type of service (fixed route, demand response, other) and geographic area (urban versus rural). The volume of service provided has fluctuated, although it has been reduced significantly overall, with significant cuts to both fixed route and demand response services.

Table 4: Pee Dee Region Composite Vehicle Miles (FY 2002 to FY 2005)

	Fiscal Year			
Area	2002	2003	2004	2005
Fixed Route	494,188	82,182	56,812	65,084
Demand Response	3,173,786	1,221,821	2,228,229	2,183,256
Other	866,754	894,953	897,402	1,005,828
Totals	4,534,728	2,198,956	3,182,443	3,254,168

Source: *Data by SCDOT*

Table 5: Pee Dee Region Composite Vehicle Hours (FY 2002 to FY 2005)

	Fiscal Year			
Area	2002	2003	2004	2005
Fixed Route	21,872	8,984	2,272	2,658
Demand Response	139,294	157,016	89,053	89,209
Other	38,138	58,621	35,868	41,102
Totals	199,304	224,621	127,193	132,969

	Fiscal Year			
Area	2002	2003	2004	2005
Urban	28,443	21,677	8,025	11,450
Rural	170,861	202,944	119,168	121,519
Totals	199,304	224,621	127,193	132,969

Source: *Data by SCDOT*

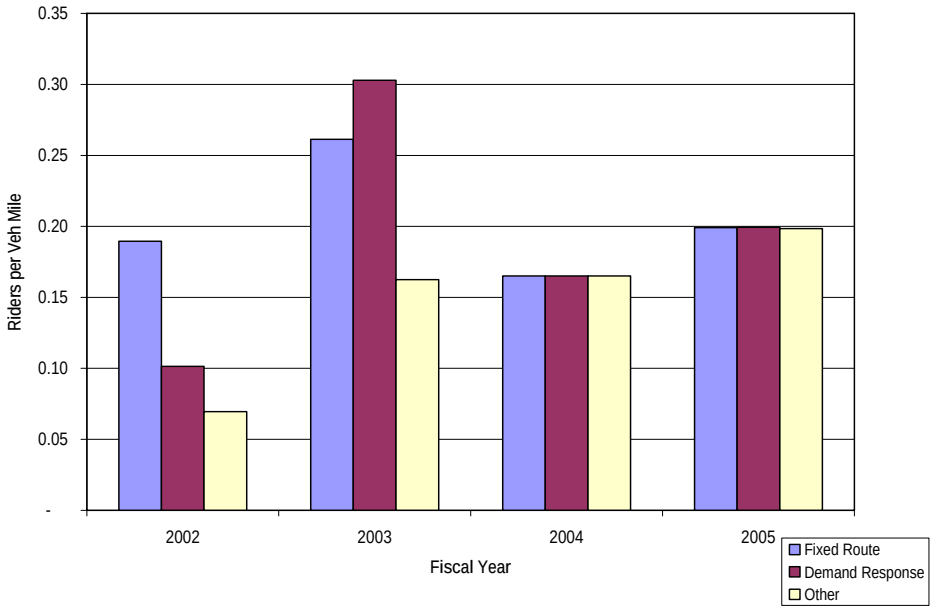
Trends in Efficiency and Effectiveness

Figures 4 and 5 present regional trends in revenue and expenses, as well as measures of key cost efficiency and service effectiveness. These measures include the following:

- Ridership per vehicle mile;
- Ridership per vehicle hour; and
- Operating cost per rider, per mile, and per hour.

As the figures illustrate, PDRTA's productivity has fluctuated significantly over the past four years. In addition, the fixed route statistics are very similar to the corresponding demand response statistics, which is attributable to the very long trip lengths that are currently being service on fixed route services. The data also suggest that demand response services are very efficient.

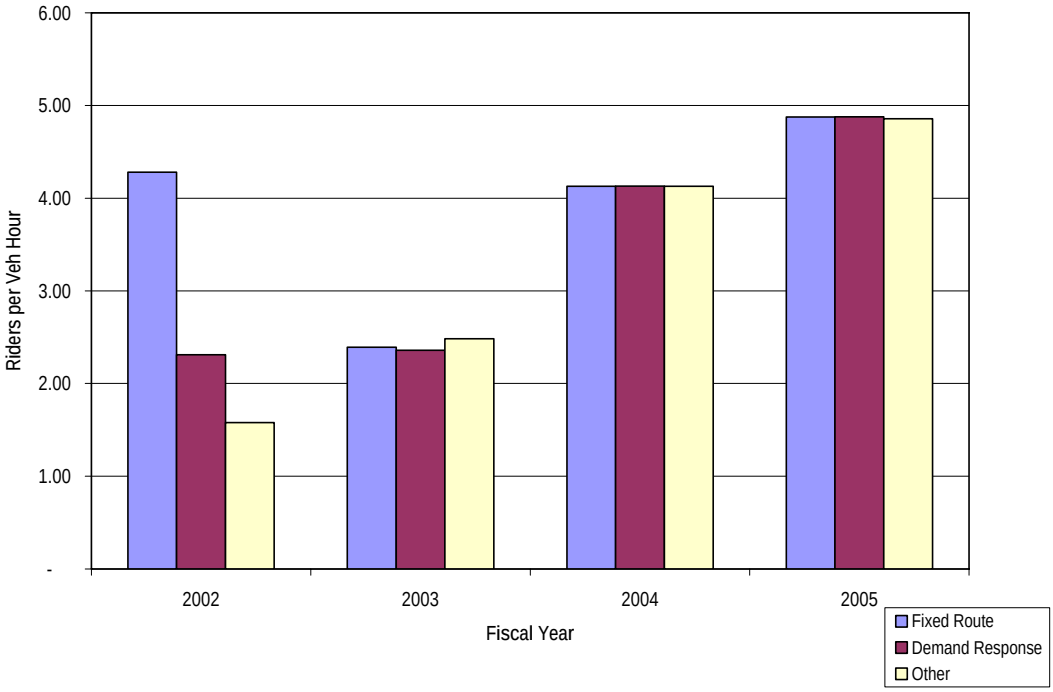
Figure 4: Ridership per Vehicle Mile (FY 2002 to FY 2005)



Source: *Data by SCDOT*

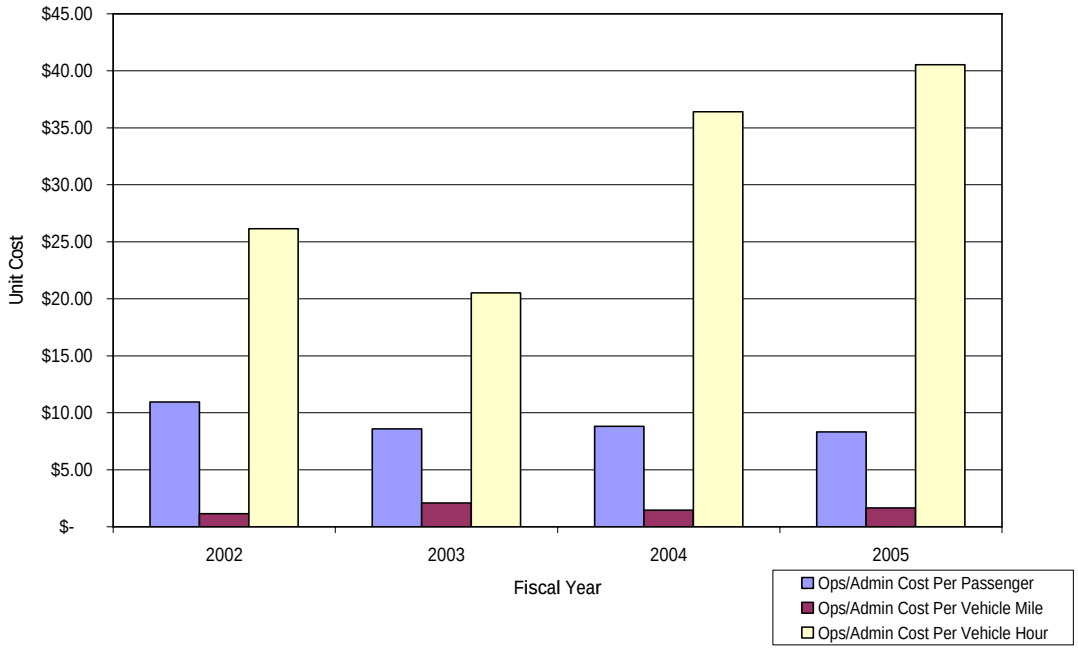
Although the cost per passenger has remained stable, as shown in Figure 6, the operating cost per vehicle hour has increased. Higher costs can be attributed to the increase in the price of fuel and longer trips.

Figure 5: Ridership per Vehicle Hour (FY 2002 to FY 2005)



Source: *Data by SCDOT*

Figure 6: Operating Cost per Passenger, per Vehicle Mile, and per Vehicle Hour (FY 2002 to FY 2005)



Source: *Data by SCDOT*

Other Transportation Services

Other agencies that currently provide their clients with transportation using in-house resources in the region include the following (this is not an all-inclusive list):

- Head Start Programs in the region operate a substantial fleet of vehicles to provide transportation to and from their educational centers. Services in Darlington County are operated through the Darlington County Community Action Agency (CAA). Chesterfield and Marlboro Counties' service are consolidated under one CAA, as are services in Florence, Marion and Dillon Counties.
- The Marion-Dillon DSN Board operates 11 vehicles to provide transportation to and from its facility as well as to residence homes. Some trips for off-site jobs are also accommodated.
- The Marion Council on Aging (COA) provides transportation to four congregate meal centers and a Meals on Wheels Program with a four vehicle fleet.
- The Florence County COA has a similar program with six vehicles servicing six sites.
- The Darlington-Chesterfield-Marlboro Vocational Rehabilitation Program has fleet of nine vehicles and provides transportation to two training centers.
- The Chesterfield DSN operates a fleet of vehicles for their clients to reach training facilities.

2.3 Identified Transportation Gaps and Needs

Two key sources of information describe Pee Dee's human transportation service providers as well as their needs. The first was a survey conducted specifically for this coordination plan by SCDOT. The second was through meetings of Pee Dee's human services agencies and other stakeholders conducted on November 29, 2006; February 13, 2007; and April 3, 2007.

In addition to the statistical information provided by SCDOT in Section 2.2, a number of human and other service providers were surveyed to determine the nature of their services as well as factors that could help or hinder coordination. About 40 surveys were distributed to Pee Dee region service providers. The survey covered 17 areas including:

- Descriptive information about provider (budget, number of vehicles, quantity of service provided)
- Types of clients and destinations served
- Times of day and days of week of service.
- Vehicle restrictions
- Use of advanced technology
- Areas of interest with respect to coordination

Unfortunately, response to the survey in the region was very low (less than five were received), and only one was tabulated. The other surveys received were misplaced and have not been recovered. In the interest of time and rather than asking those who

responded to resubmit, it was determined that the facilitated meetings during the development of plan would be sufficient to collect information about human service providers for the purposes of this plan. Much of the first meeting was dedicated to sharing information about each service and discussing transportation issues. A survey conducted in 2006 by the Darlington County Coordinating Council was also presented at the meeting and incorporated into the coordination plan findings.

During the course of the project, Pee Dee COG sponsored three meetings attended by representatives of human service agencies and transportation providers. The meetings were held to facilitate discussion about transportation issues and potential strategies to address these issues. Although attendance at the meetings declined during the course of the project, the November meeting attendance was excellent, and each of those attendees has been kept informed about the process. All three meetings advanced the development of the coordination plan through the identification of transportation gaps, discussion regarding the barriers to and opportunities for coordination. Brief summaries from each meeting are included in Appendix A, and the discussions at these meetings served as the basis for Sections 3 and 4 of this plan. A fourth meeting was conducted July 25, 2007, to present the draft Plan as well as an evaluation process to regionally prioritize projects.

Key observations at the start of plan development were:

- The region is comprised of relatively large counties with expansive rural areas that are very difficult to serve.
- PDRTA currently hold contracts with a number of human service agencies, including some services outside of the Pee Dee region.
- Many agencies currently operating transportation expressed a willingness and desire to contract their services.
- The full inventory of vehicles in the region among all the agencies and PDRTA exceeds 250, but many vehicles have high mileage or are in poor condition.

2.4 Use of Technology

As part of the statewide transit service assessment, the survey distributed as a part of this process included specific questions about how technology was being used in transit operations. This section presents general findings about technology use from the survey questions statewide, including the Pee Dee region.

Transportation providers were asked what advanced technologies were used to support the following operational functions: office, scheduling, reservations, dispatching, mapping/planning, accounting, eligibility determination, vehicle maintenance inventory, and in-route vehicle location. As one would expect, across state transportation providers, the greatest use of technology–supported by computers or other electronic systems–is for office functions, followed by accounting, vehicle maintenance inventory and scheduling. Approximately one-quarter to one-third of all the responding providers use technology to support reservations, dispatching, mapping/planning, and eligibility determination. Fifteen systems are utilizing in-route vehicle location systems. A summary of responses by COG is shown in Table 6.

Table 6: Number of Transportation Providers Using Computers or Electronic Systems for Operations by COG

Region	Office	Scheduling	Reservations	Dispatching	Mapping/ Planning	Accounting	Eligibility Determination	Vehicle Maint. Inventory	In-Route Vehicle Locating
Appalachian COG	10	6	3	3	4	8	2	8	0
BCD COG	7	4	2	1	5	7	4	3	2
Catawba COG	9	4	0	1	2	8	4	2	1
Central Midlands COG	8	4	4	4	2	7	2	3	2
Low Country COG	6	4	1	1	3	6	4	6	2
Lower Savannah COG	11	7	4	4	4	7	1	7	2
Pee Dee COG	1	0	0	0	1	1	1	0	0
Santee-Lynches COG	5	3	1	3	2	6	2	3	3
Upper Savannah COG	5	4	4	2	3	5	2	5	1
Waccamaw COG	4	3	2	2	2	4	4	3	2
Total	**66**	**39**	**21**	**21**	**28**	**59**	**26**	**40**	**15**

The transportation providers were asked whether they used web-based or internet applications to aid in performing operational functions. Approximately one out of five providers indicated they use the internet or web-based applications to assist with mapping/planning or scheduling. One out of eight providers use web-based or internet applications for the following functions: office, reservations, accounting and in-route vehicle location, as shown in Table 7.

Providers were asked open-ended questions about coordination opportunities and interests. Nearly all providers indicated they were interested in service coordination in order to reduce costs, meet service demand, achieve greater operational efficiencies and productivity, expand service areas and improve transportation services. The types of coordination opportunities desired by the providers include those to:

- **Use staff and operators more efficiently ✓**
- **Serve a greater geographic area and serve more patrons ✓**
- Improve training
- Enhance marketing
- **Schedule rides ✓**
- **Assist with maintenance ✓**
- Provide contracting and grant administration support
- **Coordinate between different service providers and types of service ✓**

The types of coordination opportunities that have the greatest potential for enhancement and assistance through technology tools are indicated by bold text and a check. Appendix C provides an introduction to the types of technological tools that are

currently available to assist with transportation service provision. It also includes a discussion about what tools are being utilized nationwide and current trends, based on literature review.

Table 7: Number of Transportation Providers Using Internet or Web-based Applications for Operations by COG

Region	Office	Scheduling	Reservations	Dispatching	Mapping/ Planning	Accounting	Eligibility Determination	Vehicle Maint. Inventory	In-Route Vehicle Locating
Appalachian COG	2	1	2	1	3	2	1	1	1
BCD COG	1	1	1	1	3	0	0	0	2
Catawba COG	2	3	0	0	1	2	0	0	0
Central Midlands COG	1	3	2	1	1	1	0	1	2
Lowcountry COG	0	1	0	0	2	1	0	0	1
Lower Savannah COG	0	4	3	2	2	2	0	0	2
Pee Dee COG	0	0	0	0	1	0	0	0	0
Santee-Lynches COG	1	2	1	1	1	2	1	1	2
Upper Savannah COG	2	1	1	1	2	2	1	1	1
Waccamaw COG	2	1	1	0	0	1	1	0	0
Total	**11**	**17**	**11**	**7**	**16**	**13**	**4**	**4**	**11**

Another statewide effort to utilize technology for the provision of transportation services in the Virtual Transit Enterprise (VTE). Beginning in FY 1998, the Intermodal Surface Transportation Efficiency Act (ISTEA) and its successor, the Transportation Equity Act for the 21st Century (TEA-21), authorized the FTA to award capital grants to SCDOT for the development of the VTE project, a shared technology solution to bring the state's public transit providers together to solve mutual problems.

The concept takes advantage of the economies of scale that result when a group of independent, self-sufficient organizations with common purposes share information technology (IT) resources rather than duplicating high-cost technological investments at numerous locations. A virtual enterprise works best when the individual organizations have a common type of business, are geographically dispersed with limited competition with each other, have mutual respect for each other, and are motivated to reduce IT infrastructure costs through standardization and increased revenue through integrated services among members. The enterprise is "virtual" because the organizations communicate and share information with each other and conduct their business from remote sites using web-based communications with standardized software and hardware infrastructure resources located in a central location.

The main goal of the VTE project was to improve the efficiency and effectiveness of rural public transit providers through the use of state-of-the-art information technology by:

- Making available to smaller public providers the same modern resources as large providers;
- Providing more timely and accurate planning and reporting via electronic means to reduce overhead and turnaround time;
- Minimizing cost of implementing computer technology as well as total cost of ownership over the product life cycle; and
- Optimizing transportation runs and routes to make transit more flexible and responsive.

As a result, VTE would increase transit ridership through increased rider satisfaction, and improve mobility particularly for transit-dependent people, disabled persons, and Welfare-to-work participants.[8]

[8] This section taken from the "Evaluation of South Carolina's Virtual Transit Enterprise", FTA-SC-03-1002-05.1, Schwenk, Volpe Center, September 2005

Section 3: State of Coordination in the Region

This section reviews issues associated with coordination in the Pee Dee region and describes the efforts already undertaken to coordinate as well as stated barriers to and opportunities for coordination.

3.1 Efforts to Coordinate

In November 2006 and February 2007, Pee Dee COG sponsored meetings of area human service providers to discuss transportation coordination. The discussion revealed that some coordination already exists within the region, especially within the same type of agencies. The DSN Boards and Community Action Agencies operate their respective systems based on the consolidation of their in-house services, essentially by grouping counties. In addition, the Head Start Programs coordinated to purchase fuel, vehicles, and insurance programs.

Some transportation has been consolidated under PDRTA through agency contracts including: COAs in Marion and Florence Counties, the Darlington DSN, the Pee Dee Mental Health Department and others. The PDRTA continues to work with the RTAs in adjacent regions to coordinate the service provided for inter-regional trips.

3.2 Regional Transportation Gaps/Barriers to Coordination

The facilitated meetings identified a number of gaps in human service transportation within the Pee Dee region. The list of gaps is not intended to be inclusive of all gaps, but gaps identified are considered by meeting participants as the most significant and should be the focus of projects and strategies funded under the three FTA programs.

Many of the gaps in transportation for the Pee Dee region stem from its large geographic size and the number of remote rural areas that are difficult to serve. The group agreed that any improvements in the reliability of service, both in terms of decreasing wait times and overall on-time performance, in addition to increasing the service area, should be high priorities for the region. The group identified several rural areas that need more services in Chesterfield, Dillon, Marion, and Marlboro Counties.

Limitations in PDRTA service were also cited as a major transportation gap. These primarily attributable to a general lack of resources, but the group felt that the introduction of weekend services, evening services and wider coverage areas would take some pressure off the demands on their service.

Several populations were considered to be underserved, the most notably of which were low and fixed income individuals just above the Medicaid threshold that need transportation to medical services. Many of these individuals are either elderly or live in the remote areas of the region. The group also felt that seniors have difficulty in getting to other destinations other than senior centers primarily for basic needs like groceries and other non-medical services. The DSN Boards expressed concern for their clients, who have been through their program and placed into jobs, who find that transportation is a critical barrier to maintaining their employment.

The group also identified several other issues that either represent gaps or barriers to coordination. They include:

- Need for vehicle replacements is a major capital resource issue.
- Late afternoon and return trips are difficult to serve and experience reliability issues.
- Jacob's Law creates a gap for Welfare-to-Work mothers seeking to travel with their children for drop-off at daycare. The transportation provider generally does not have vehicles that meet the Jacob's Law requirement for transporting children.
- Some agencies keep waiting lists for their services and cite transportation as one issue for being unable to accommodate new clients.
- Concerns were raised regarding the mixing of clients from different programs for transportation on the same vehicles. Safety concerns, program confidentiality, and potential conflicts between passengers were mentioned as possible issues with mixing clients.
- Difficult to retain qualified drivers. The issue of pay differences came up with general public transit drivers and human service transit drivers, and the higher pay rate a CDL driver could earn as a truck driver.

3.3 Opportunities to Coordinate

Many opportunities for coordination were identified early in the process across all the regions, including but not limited to:

- Conduct planning studies in the region to determine where the demand is for transportation services and level of support for expansions/improvements.
- Information on available transportation capacity (may be posted on a web site for all to see and know that space is available to key destinations). Some mention of setting up something similar to a 211 phone number.
- Mobility manager who can be a clearinghouse for centralized information availability as well as scheduling and dispatching of services.
- General marketing to the riding public about services.
- Regional vehicle maintenance to share that expense.
- Cooperate in driver training.
- Establish a fare structure for non-program riders.
- Develop common standards for driver training and qualifications as well as for maintenance and insurance coverage.
- Develop insurance pooling programs.
- Develop cost allocation formulae to encourage cooperation and coordination among transportation providers.
- Use real-time scheduling among operators in an area to utilize available capacity, especially for return trips which tend to be on an "on-call" basis.
- Continue and expand use the statewide vehicle leasing and fuel program.
- Take advantage of new matching regulations by pooling the funding from multiple federal programs to enhance services.

Section 4: Coordination Strategies and Actions

Based on the coordination and other issues identified in Section 3, several strategies and actions were developed to advance the region's efforts to promote coordination to a higher level. "Strategy" is defined here as a general direction for a course of action while "actions" are more specific steps in fulfillment of the given strategy. Actions will lead to "projects," which implement the actions and strategies. This regional coordination planning effort will only go to the "action" level, with projects to be developed later in concert with Pee Dee COG.

Draft coordination strategies and actions were developed at a meeting of human service providers on April 3, 2007, hosted by Pee Dee COG. This section presents the results of that meeting.

4.1 Coordination Strategies

The coordination strategies and actions were developed to address the transportation needs and issues confronting the region identified in Section 3. The primary issues and needs include:

- More service (more days, hours, geographic coverage)
- Centralized scheduling
- Regional application for §5309 funds
- Insurance coverage
- Explore mobility manager concept
- Address cost allocation among operators

Table 8 presents the strategies and actions developed for the region. Three strategic areas were developed which attempt to address at least one of the identified needs and issues. Some strategies address multiple issues. The three areas are:

- The *administrative strategy* is intended to reduce procedural and similar paper barriers (both perceived and actual) that inhibit coordination.
- The *information sharing/capacity management strategy* area is intended to facilitate the sharing of resources, such as vehicles.
- *Future operations planning* targets emerging needs by creating efficiencies from better resource sharing.

4.2 Recommended Actions

As shown in Table 8, there are strategies identified to alleviate gaps in transportation service. From these strategies several action items can be defined for the region to consider while developing projects.

Table 8: Coordination Strategies (From the April 3rd meeting)

Gaps	Administrative	Information Sharing/Capacity Management	Future Operations Planning
4/03/2007	Any arrangements among agencies to coordinate expenses, pool resources, change procedures, expand eligibility.	Combining schedules, vehicle sharing, offering access to training programs, etc.	Service expansion, facilitating transfers between services, new service, etc.
Need for more service in rural areas - Marion, Dillon, Marlboro and Chesterfield Counties	Enhance rewards program service-more transportation	Call Center with informed answers and must get word out	---
Low Income - many above Medicaid threshold need transportation to medical services	Increase marketing, especially to employers (HR-HR)	---	Identify activity centers that need services
Low income persons need transportation / all trip types - above and below Medicaid threshold.	Fare Policy Strategies-employer (HR-HR)-subsidize fares for longer trips	Combine trips to services and jobs (1 house-1 to work, 3 to services)	General Public Demand Response Service
Vocational Rehab - Former clients who have difficulty obtaining transportation to work after they have successfully completed an agency training program - identified in Darlington but occurring in the rest of the Region too.	Voucher Program-Fare Policy	---	---
The regional general public transit provider (Pee Dee RTA) operates M-F from 7AM to 6PM, with no weekend service currently.	---	Coordinate regional trips	---
Need for vehicle replacements is a large capital issue.	---	---	Regionally coordinated capital improvement program
Late afternoon and return trips are difficult to serve and experience reliability issues.	---	Real Time Scheduling (Cost Allocation)	---

4.2.1 Administrative Actions

There are three action items under the Administrative Strategies for consideration.

1. Raise public awareness of service through marketing programs. This would include improved information services for non-English speakers and disabled persons. The implementation of a travel training program may improve service utilization by these populations.
2. Voucher programs and other fare subsidies to accommodate clients during difficult times of day to provide reliable service. Some regions need to focus this strategy on the user side of the issue. New programs designed to reduce the expense to the user such as voucher programs and distance-based fares (some are already in place) should be explored. However, the action item maybe more useful to the region by developing projects that essentially make private providers more affordable to both the client and agency. These types of projects can take on many forms but could be a direct subsidy to the user in the form of a voucher, allowing private providers to access training programs or other cost savings methods so they can reduce their prices, etc.
3. Any efforts to pool expenses among agencies will take advantage of economies of scale for items such as fuel, insurance, vehicle maintenance, driver training, drug and alcohol testing and employee benefit programs. This item was not included in the table, and pooling programs among similar agencies already exist in many instances; however, expanding pooling programs across additional agencies should be considered.

4.2.2 Information Sharing/Capacity Management Actions

There are three Information Sharing/Capacity Management action items:

1. Establishing a real-time scheduling system would help organize on-call return trips, improve efficiencies in terms of identifying the closest vehicle to provide the trip in real-time, and utilize other providers when possible. This concept would be useful to accommodate the idea on pooling trips within households by scheduling trips to services for some individuals at the same time work trips are scheduled.
2. Establish a mobility manager and one stop call center that provides informed answers to client's questions conveniently and efficiently. SCDOT will be exploring the possibility of providing a statewide mobility manager program. The real-time scheduling mechanism will also allow the region to manage drivers and vehicles to better share resources by attempting to create an information resource where providers will know what each has available in the way of capacity.
3. Launch a vehicle sharing program among organizations. Several of the agencies cited down time for their fleets.

4.2.3 Future Operations Planning Actions

Most of the gaps identified in the Pee Dee region require the expansion of services, fleets and/or driver pools. Actions under this category require additional resources for implementation. Actions include: a regionally coordinated application for capital funds potentially under FTA Section 5309; the introduction of general public demand response services into new areas on a limited basis until ridership warrants increased levels of service; improving wages for drivers to improve retention; and for the region to continue to take advantage of state contract and leasing programs for vehicles. Additional future operations planning strategies are as follows:

1. Increase local funding support for transit.
2. Identify activity centers that need services. On several occasions, the group mentioned the need for a study to help the region identify and prioritize the areas that need service.
3. Expand the RTA further into rural areas and partner with other stakeholder entities, such as faith based organizations, neighborhood associations, and human service agencies. Increases in the public transit system will take some pressure off the demand for human service agency sponsored transportation.

Section 5: Considerations for Implementation

The strategies and actions presented in Section 4 only set the stage for enhanced coordination. More is needed if those actions are to be converted into concrete steps. This section presents some ideas on how the region may go about converting actions into well-defined projects. "Project" will be the steps necessary to fulfill the strategies and actions.

Three areas of implementation will be addressed:

- Development of projects
- Prioritizing projects
- Carrying out projects

5.1 Considerations for Developing Projects

If the actions and strategies in Section 4 are to be implemented, more concrete steps are needed. These steps or "projects" need, obviously, to correspond to a given strategy and action. For example, the action to "rationalize performance and service standards among funding partners" under the "Administrative Strategies" in Table 6 needs specific steps or projects if the action is to be realized.

Some key steps in making an action into a project or projects would be:

1. Form a working group for the specific area.
2. Describe the desired end result.
3. Define the steps to achieve the end result.
4. Identify and take the first step.

5.1.1 Form a Working Group

Coordination, by definition, involves a collection of agencies or groups working toward a common end. Any effort to promote coordination needs to be achieved by mutual cooperation of the affected entities. A working group, facilitated by Pee Dee COG to tackle a given action, would be an important step in forming and executing implementation projects.

The working group should be comprised of stakeholder agencies and persons who are committed to finding common ground and can be counted on to attend meetings as well as to carry out assignments outside regular meetings. As with any group working together, meetings should be documented with summaries distributed to all participants as soon after the meeting as possible.

5.1.2 Describe the End Result

This step clearly defines the goal or objective of the working group. It answers the question, "What are we trying to do?" For example, to develop a project that "rationalizes performance and service standards," multiple outcomes can result such as:

- Develop common standard for on-vehicle ride times
- Create service on time performance criteria and standards

- Establish common driver qualifications
- Establish common insurance requirements
- Determine vehicle maintenance requirements.

A project might address one or a combination of these outcomes. The working group would decide which of these would be best to tackle first.

5.1.3 Define Steps to be taken

In developing common action, it typically requires a series of small steps to achieve a given result. For example, "establish common driver qualifications" would likely not be a question of agreeing to a set of standards. Each affected agency likely has a stake in its way of doing things. As such, addressing each unique circumstance will take methodological consideration. These steps become the project's "work program."

Using "driver qualifications" as an example, the following steps might be considered:

1. Define driver qualifications in use at each participating agency.
2. Determine the rationale for each qualification. For example, is a given qualification due to some special circumstance related to the type of riders carried?
3. Determine qualifications common to each agency. Which qualification areas are at odds? Does one agency require drivers to be 25 years of age while another 21 years?
4. Focus on areas of disagreement. For example, perhaps each agency has different age requirements, driver training regimens, or drivers have ancillary duties besides driving.
5. Of the areas of disagreement, select the areas that are easiest to address.
6. Take each area in turn.

5.1.4 Identify and Take First Steps

Taking the first step may seem easy, but it might be the hardest one. Sometimes embarking on a difficult assignment causes procrastination. Setting deadlines, meeting dates, and making initial assignments can be helpful in avoiding first step delays.

5.2 Considerations for Prioritizing Projects

There may be several projects that address a specific action, or the region may want to tackle several actions at once. Either way, a region may be faced with a number of projects it wishes to pursue. As resources tend to be limited, only so much can be done. This section provides some ideas in how competing projects may be prioritized.

Developing project criteria is one way competing projects can be ranked in order of desired undertaking. Examples of criteria are:

- *Degree of project contention* - is this a project that is divisive and could be both time consuming and complicated to pursue? Depending on the importance of the project, it may be pursued alone or postponed in favor of easier pursuits.

- *Core versus peripheral issue* - is the project addressing a keystone issue or one that is relatively minor and has limited overall value? The scope of the project could dictate whether it is an action worth taking sooner or later. Generally projects with far-reaching results can have great pay-offs in advancing coordination or, if not successfully pursued, they can discourage future action.
- *Time* - is the project addressing an immediate and pressing issue or one that is more long term? Issues with immediate and significant impact may be more desirable than those that are long term in nature. For example, address the impact of rising fuel prices could be immediate, while addressing federal vehicle safety standards may have a longer time horizon with less tangible benefits.
- *Scope of Impact* - does the project impact a small inconsequential aspect of human service transportation or is more significant? The more significant the issue, the more challenging and greater the potential rewards.
- *Scope of effort* - does the project tax the technical and time skills of the people involved? Would it require outside help in the form of a consultant or other outside expert? Far-reaching projects requiring significant effort may be challenging to pull off, though a successful outcome could be enormously beneficial.

5.3 Carrying Out Projects

This section provides some information that may be useful as the region undertakes coordination projects. Some points to consider are:

- Look for analogous situations to the project being undertaken. It is possible some other agency has tackled the same or similar problem being addressed by the project. Some sources of information are:
    - Literature from the Transportation Research Board (TRB), the Community Transportation Association of America (CTAA), the American Public Transportation Association (APTA), Easter Seals (through Project Action).
    - Presentations given at conferences of the above organizations as well as at State transit associations.
    - United We Ride website – www.unitedweride.gov
- Peer agencies in other regions can be a good source of information and advice. Peer agency staff could either be invited to attend a meeting in the region, or the working group might take a field trip to the peer's place of work.
- Be willing to fail and learn.
- Find people who champion finding a solution to the issue at hand.
- Consider other outside resources such a state DOT or a consultant.

5.4 Project Evaluation Guidelines

A major goal of the Coordination Plan is to establish a methodology to evaluate potential projects at the regional level so that limited resources are optimized. Based on the plan development process in the Pee Dee region, the following criteria should be considered when selecting projects.

1. The need for a mechanism to disseminate information about available transportation services was reiterated throughout the development process and is clearly a high priority for the region. Projects that establish marketing programs or information dissemination to potential clients to encourage ridership should receive priority but are difficult to quantify in terms of their effectiveness. These projects should be developed such that they involve multiple agencies and include some level of local financial participation to ensure sustainability before they are considered.
2. Projects that specifically target access to jobs. It was determined by the regional steering committee that the access to jobs was under-emphasized during the development of the plan and therefore added as a part of the comments to the draft plan.
3. Capital versus Operational Assistance – a central theme among the gaps and strategies for coordinated transportation in the Pee Dee region was to simply increase service. Both capital projects and operating assistance can serve as a method for accomplishing this objective, whether the project proponent is increasing the fleet size or designing a project that enhances service hours or area. Capital projects tend to be less difficult to accommodate for an annual competitive funding process because they are one-time expenditures and create capacity for the funding program in the subsequent year. However, the region should consider projects involving operating assistance in cases where the proponent has established a sustainable local source of funding and/or combined a local source with matching dollars from another federal source. These projects should compare favorably with capital requests as long as they have a defined term of no more than three years of funding.
4. Projects that target new rural service and more specifically service in Chesterfield, Marlboro, Dillon and Marion Counties should receive favorable ratings in the evaluation process.
5. Projects that relax eligibility requirements or increase the number of individuals eligible for service should be considered.
6. Many coordination efforts involve a perceived risk on the part of one or more agencies. For instance, the simple act of contracting out for transportation service requires an agency to relinquish control of customer service to a certain extent. Projects that essentially provide seed money for the first year of a new relationship between two agencies should be favorably considered. This type of arrangement at least removes the issue of using agency funds for what may be perceived as a risky endeavor. The project would give the contractor one year to

exhibit its service capabilities and warrant use of agency funds for the arrangement in subsequent years.

7. Projects that enhance reliability and schedule adherence of demand response services should receive a high rating. A cost allocation formula must be defined, but trip coordination efforts (real-time or otherwise) among the providers in the region could address this issue without major increases in fleet size. There is some level of unused capacity with the vehicles that are parked during the day, but it will be necessary to identify who will be driving the vehicles.

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Appendix A: Regional Meeting Summaries

REGIONAL TRANSIT COORDINATION PLAN
PEE DEE REGIONAL MEETING
MEETING: WEDNESDAY, NOVEMBER 29, 2006
2PM PEE DEE REGIONAL COG Conference Room

Staff Present: Phil Goff, Pee Dee COG
Brian Piascik, URS Corporation
Brenda J. Perryman, SCDOT Mass Transit
David Burgess, SCDOT Planning Office
Doug Frate, SCDOT

Participants: Phyllis Griffith, Darlington County
Samuel D. Bass, CM & EOC
David Pettigrew, Darlington County CAA
Mike Keith, Marion-Dillon Disabilities & Special Needs
Edna Rogers, Marion County Council on Aging
Byron Wilson, Darlington County DSNB
Andy Kurtzman, Care South Carolina/USCSOM
Kelli McCormick, Florence Area Transportation Study
Raleigh Ward, Florence Area Transportation Study
Julie Wilkie, Florence Area Transportation Study
Billy Windham, Chesterfield BDSN
Joan Flail, Pee Dee Coalition
Sheila Haney, Darco Coord. Council
Mike Welch, City of Hartsville
F. Nolan Sellers, 411N Co. Ace Taxi
Janice Baroody, PDRTA
Shereca Anderson, PDRTA
Connell Fain, Senior Citizens Association
George Pullie, SC Vocational Rehabilitation
James McLaughlin, Pee Dee CAP

Doug Frate (SCDOT) opened the meeting with a summary of the purpose of the coordination plans and some background on the related FTA Funding Programs. The two primary points were: that recipients of federal transportation funding from a number of US DOT and other Federal agencies are now allowed to use these funds to match other federal transportation funds for projects outlined in a conforming coordination plans; and, that SCDOT was now providing the framework with which each region in South Carolina will tailor a coordination plan for its region. Each plan would include the identification of transportation needs in the region, barriers to coordination and coordination strategies to meet the needs. Each Council of Government would serve as the lead agency in each

region and become the recipient for Section 5310 (E&D Capital Funds), 5316 Job Access-Reverse Commute Program and 5317 New Freedoms Program.

Brian Piascik led a discussion around the table, allowing each representative to introduce themselves, their agency and to talk about the transportation services and issues they are concerned about.
HHS – Head Start (Jacobs Law is a Barrier

Darlington CAA – Operates the Head Start Schools
- 6 Centers
- Old Fleet
- Meet Jacobs Law
- Paid Drivers
  - 60 minute routes - Darlington, SC
  - Waiting list – SC
  - Funding – HHS 20%
  - Sees coordination with DSS
  - Daycare Centers
  - Liability – cost allocation

Florence, Marion, Dillon CAA – 32 vehicles
- Vehicle aging
- Qualifying drivers

Chesterfield, Marlboro – CAA
- Pool resources for fuel purchases - ethanol could be used
- Head Start – fuel cost a major concern

Marion Dillon Disabilities and Special Needs Boards
- Marion – mostly adults – 138/day 9 vehicles/2 lift vehicles
- Dillon – do some residence homes
  - Lease from State fleet 4-5% budget
  - Maintenance/insurance $200,000
  - Access to jobs – off-site

Marion Council on Aging
- Elderly – 60 Older Americans Act
  - Congregate meals
  - Shopping
  - PDRTA - medical
  - 4 centers – 3-1/2 buses
- Would like to contract out service
  - 10-2 for meals

Florence County COA
- Transport to meals, doctors Lease vehicles

Contract with RTA — 6 sites
Need vehicle with lift — 6 drivers/1 FT
6 vehicles

PDRTA – Public Transportation
- Medicaid – Lancaster/Lee/Georgetown
- 145 – 10 parked
- 130 – 10 parked
- Having trouble keeping drivers
- Work with most of the agency
- 8-2 peak time
- Need more flexibility
- Want door-to-door service – preferred
- Jacob's Law – barrier – out of the child transportation business
- Funding is barrier – no increase annually
- Work trips – 2nd shift
  - 3rd shift
- Needs – requests from major employers
  - Geographic – 600 Marion/Dillon to Myrtle Beach
    - Seasonal
  - Medicaid – reduces capacity
  - Florence – 6 – 4 vehicles
  - Dillon/Marion – Fixed route – expansion

Darlington/Chesterfield/Marlboro – VOC Rehab
- Would like to get out of transportation — 40 clients at one center
- 8 vehicles/1 lift-equipped — 35 at other center
- Training Center — Parked 8:30-3:00
- Utilizing pick-up point
- Department of Education
  - 80/20 Federal/State

Darlington County DSN — 3-4 vans transportation
- 7-2 PM — 12 vehicles
- PDRTA does 2 routes
- 109 in program/plus kids
- 8:30-2 PM – 8 vans sit
- Waiting list – afternoon jobs
- True lack of options for PM transportation

Marlboro County – grant program
- Uninsured to medical appointments
- USC Medical School
- Central dispatch

FLATS – GIS service to PDRTA 5303-Planning
- Planning support
- Multi-modal approach

Chesterfield Coordinating Council
- DOT contract – study human service transportation
- Poverty is the issue
- Coordination costs money/benefits – save money overall
- Coordination Council – same insurance
- Liability
- Coordination function
- Highest rate of hospitalization
- Education – bus routes – adults could ride
    - Same seat capacity
- Training to transportation
- Mixed population
- Trust – mad at RTA two administrations ago
- Fixed routes
    - Reliability
- Meeting on a regular basis

Domestic Violence/Abuse Shelter
- Two emergency shelters
    - Florence and Marlboro
- Women to court, medical
- Job access, housing
- Community service

Ace Taxi Service 72 cabs

Darlington County Coordination Council
- Volunteer organization
- Three years focusing on transportation
- PDRTA, COA, State Delegation
    - Concluded that a survey was needed
- Clients are not receiving service
- 21 surveys received
    - 5 had capacity
    - Resources
- 13 have unmet needs
  7 use PDRTA – considered RTA unsatisfactory

Chesterfield Board of Disabilities 85 vehicles
- Maintenance when idle
- Kershaw/Richland

REGIONAL TRANSIT COORDINATION PLAN
PEE DEE REGIONAL MEETING
MEETING: WEDNESDAY, FEBRUARY 13, 2007
2PM PEE DEE REGIONAL COG Conference Room

Staff Present: Brian Piascik, URS Corporation
Kelli McCormick, Florence Area Transportation Study
Tripp Ward, Florence County Planning
David Burgess, SCDOT **(Kept minutes of the meeting)**

Participants: David Pettigrew, Darlington County CAA
Billy Windham, Chesterfield BDSN
Joan Flail, Pee Dee Coalition
Sheila Haney, Darlington County Coordinating Council
Janice Baroody, PDRTA
Andy Kurtzman, USC/Care South Carolina
Dewey Brower, Brower Taxi Service
Bernard Silverman, Citizen (Conway, SC)
Grace Gifford, Citizen (Conway, SC)

WELCOME (David Burgess)

David Burgess of SCDOT thanked the attendees for their continued participation in the development process. The group was reminded of the end product of the process and the overall goal of improving the coordination of transportation services in the Pee Dee planning region. David also stressed the importance of their on-going participation in shaping the outcome of the region's coordination plan. David recognized Phil Goff of the Pee Dee COG and Brian Piascik of URS.

REVIEW OF PROJECT (Brian Piascik)

Brian Piascik reviewed three types of transportation gaps (geographic, temporal, and financial). Discussion of these gaps framed the development of the discussions of the meeting. Brian also reviewed the purpose of developing the coordination plans as being required by the most recent federal transportation law. The flexibility in being able to use funds on one federal transportation grant program as match for another federal grant program was also mentioned as feature of the new federal transportation law.

The following programs were mentioned during the review:

- Section 5310 Formula grant program for the elderly & persons with disabilities.
- Section 5316 Job Access & Reverse Commute
- Section 5317 New Freedom Initiative

The coordination plans will be tailored specifically for each planning region. Activities will focus primarily on transportation activities of human services agencies. Input is being sought from both public and private transportation operations and entities.

GAPS IN HUMAN SERVICE TRANSPORTATION

Geographic gaps were defined as areas that did not have current transportation service. Temporal gaps include daily time periods, certain days of the week, and any particular season of the year when transportation service is not available or limited. Financial gaps include budget constraints to providing service, capital-related issues in transportation service delivery, and prohibitive cost issues for those who might use transportation services.

The following questions were used to help generate the responses in the Table 1:

1. What issues do the elderly have with transportation?
2. Are there any upcoming or proposed changes to Jacob's Law?
3. What sorts of trips that need to be made but are not being made?

TABLE 1: GAPS IN TRANSPORTATION SERVICE

GEOGRAPHI GAPS	TEMPORAL GAPS	FINANCIAL GAPS
1. Darlington County – Vocational Rehab. Former clients who have difficulty obtaining transportation to work after they have successfully completed an agency training program.	The regional general public transit provider (Pee Dee RTA) operates M-F from 7AM to 6PM, with no weekend service currently.	Jacob's Law creates gap for Welfare-to-Work mothers seeking to travel with their children for drop-off at daycare. The transportation provider generally does not have vehicles that meet the Jacob's Law requirement for transporting children.
2. Suburban/Rural areas-Seniors needing medical, grocery, other trips.		Medical-related transportation trips for passengers who are just slightly above the Medicaid income eligibility level. The transportation need exists for this population but they are not eligible for Medicaid reimbursed trips. The regional RTA (Pee Dee RTA) has been providing services to this population, without the reimbursement payments from Medicaid.
3. Elderly/Low income/transportation needed region-wide for all types of trips.		It was pointed out that there was a waiting list for DSNB services in the Darlington area.

BARRIERS TO TRANSPORTATION COORDINATION

While not on the agenda, discussion of coordination barriers came up from some of the attendees at the meeting.

1. One attendee pointed out the some agencies only allow registered clients to be transported on their vehicles, which presents a problem in certain situations (grandparent who is eligible for senior services and wants to drop off a grandchild at daycare would not be allowed on board with the child, for example).
2. Somewhat related to number 1 above, concerns were raised regarding the "mixing" of clients from different programs for transport on the same transportation vehicles. Safety, program confidentiality, level of functioning of some program participants were mentioned as possible issues with mixing clients.
3. The issue of pay differences came up with general public transit drivers and human service transit drivers, and the higher pay rate a CDL driver could earn as a truck driver.
4. A community survey revealed that the local Voc. Rehab had three 15-passenger vehicles that sit idle most of the day. Recommendation was that agencies communicate to let opportunities be known.
5. Concern was raised about potential damage to vehicles under a shared arrangement, when the custodial agency ends up having to take responsibility for fixing damages caused while their vehicles were in the care of other agency staff participating in the shared vehicle arrangement.

STRATEGIES

1. Conduct planning study in the region to determine where the demand is for transportation services and level of support for expansions/improvements.
2. Utilize un-used capacity on existing fleet to provide transportation services to others who may not be clients of the agency having custody of the vehicle.
3. Pool insurance and maintenance services.
4. Perform operational analysis on transit services to help address temporal gaps.
5. Sponsor CDL driver training courses to increase the pool of qualified drivers in the region.
6. One attendee commented that transit systems are not getting out enough information to help citizens understand how to use public transportation. Other comments about the need for better transit marketing and information sharing at various levels, not just by the transit providers.
7. One attendee wanted to see a portion of the coordination budget go to address planning and transit study needs in the region.

8. In a discussion about funding for transit in the state, SC State House Bill HB3153 was mentioned as possible increasing the amount of State funds made available for transit activities in the State. Per the discussion, HB3153 proposes to increase the funding for transit from ¼ of a penny to a full 2 cents per dollar.
9. Phil Goff suggested that a demand projection model, similar to the one used for highway projections, be developed to aid in projecting future transit demand

NEXT STEPS

The group affirmed Tuesday as a good day of the week to meet, and a request was made to meet possible during the morning hours. The next meeting date is being considered for April 3rd, 2007 at 10:00 AM or April 10, 2007 at 10:00 AM. The next meeting is to focus on possible strategies for addressing some of the gaps identified.

REGIONAL TRANSIT COORDINATION PLAN
PEE DEE COG REGIONAL MEETING
MEETING: TUESDAY, APRIL 3, 2007
2PM PEE DEE REGIONAL COG Conference Room

Staff Present: Brian Piascik, URS Corporation
Kelli McCormick, Florence Area Transportation Study
David Burgess, SCDOT

Participants: Margaret P. Mitchell, Chesterfield County Coordinating Council
Phil Geoff, Pee Dee COG
F. S. "Butch" Wills, Jr., MCEDP
Janice Baroody, PDRTA
Andy Kurtzman, USC/Care South Carolina

The primary focus of this meeting was to develop strategies for coordination that address gaps identified in the previous meeting. The result of the discussion facilitated by Brian Piascik appears in Table 8 on page 24.

Appendix B: Technology Resources for Transportation Coordination

Technology Resources for Transportation Service Coordination

Technological resources that could be used to aid in transportation service coordination fall into the following categories:

- Communications
- Dispatching/Scheduling
- Fare Collection
- Vehicle/Component Monitoring
- Traveler Information
- Technology Standardization

Coordination considerations and benefits for each of the resource categories are presented, along with a description of specific technologies. Technologies were identified that appear to have greater application for small or rural transportation providers, as these are the bulk of transportation providers in South Carolina.

Consideration was also given to recent recommendations from the Federal Transit Administration Office of Mobility Innovation and the Intelligent Transportation System America (ITSA)/American Public Transportation Association (APTA) ITS Public Transportation Forum regarding ITS application and deployment for transportation operators. In a joint research effort, a set of core transit technologies has been identified for different transit modes. For human service providers, the following six technologies are proposed for ITS deployment:

- Automatic Vehicle Location
- Communications
- Traveler Information
- Data Management/GIS
- Computer-Aided Dispatch and Scheduling
- Maintenance Management

Two additional secondary technologies are suggested for implementation once the core technologies have been deployed: electronic fare payment and automated service request systems.[6]

Communications

Providing a means of communication among vehicle operators and central office staff for a transportation service provider is an essential function. Wireless communications technologies have been advancing quickly, with greater levels of data transmission occurring through wireless communications devices such as

[6] *Transit Core Suite of Technologies,* T3 Presentation, May 22, 2007.

cellular telephones, personal digital assistants and portable, laptop computer systems. For a transportation provider, a uniform platform for communications is necessary. Sharing a common platform between different systems can aid service coordination by providing a means to communicate dispatching and service needs between different systems. It can also be an indispensable asset in responding to emergency situations. A traditional communication device used by transportation providers is a two-way radio; however, the advances in wireless communications technology now provide the transmission of both voice and digital data.

Advanced Communications Systems - Advance communications systems combine digital technology with trunked radio systems. The trunked radio system allows a system to use the best available frequency for transmission instead of using a preset frequency.

Mobile Data Terminals (MDT) - MDTs are on-board computer systems. Data is transmitted between the operators and the central office. MDTs provide real-time information to operators such as traffic conditions, weather, routing, and client information. The terminals can also provide electronic data collection. A strength of MDTs is that operators can access data when it safe to do so and it reduces frequent and distracting verbal communications.

Cellular Digital Packet Data (CDPD) - CDPD sends digital information via wireless communications to provide real-time information to travelers and operators. CDPD technology works in concert with Automatic Vehicle Location (AVL), Geographic Positioning System (GPS), and MDTs.

Dispatching/Scheduling

For rural, paratransit, and other on-demand transportation services, increased service productivity is achieved through efficient scheduling and dispatching of the service to patrons. The benefits of more efficient service delivery through use of reservations, scheduling, and dispatching software become evident when more patrons can be served resulting in better performance measures such as more trips per hour, more trips per mile, and lower costs per trip. Automated dispatching and scheduling, combined with automatic vehicle location, CDPD, and MDTs, is a powerful tool to facilitate service coordination within and between service providers.

Computer Aided Dispatching (CAD) - CAD is software used to coordinate and automate on-demand transit services. The software can aid in providing shorter response times and providing more efficient service operations. CAD software can be utilized by itself or in combination with other wireless communications technologies such as MDTs and automatic vehicle location. Costs for CAD range from $75,000 to $245,000 for smaller systems.[7]

Automatic Vehicle Location (AVL) - AVL is used to track transit vehicles using geographic positioning devices such as Geographic Positioning Systems (GPS).

[7] *TCRP Report 84,* page 14.

AVL can benefit coordination of services by supporting more efficient trip planning. AVL indicates vehicle locations, which can be essential for responding to security and safety problems. AVL can also provide a means for passengers to identify wait times via web-based, online tool. Costs for AVL range from $400 to $2,000 per system on a vehicle plus $10,000 for central operating system.[8]

Fare Collection

For large urban transit systems, fare collection is most often administered through non-cash media (tokens, fare cards, or smart cards), which are purchased from the provider or through vending machines. The greatest benefit of using non-cash media is that it streamlines accounting and reduces the problems inherent with a cash-based system. Within travel regions, using a single fare collection system can facilitate service coordination between systems.

Automatic Fare Collection (AFC) and Reconciliation Systems - AFC systems count fares as they are collected, which allows automated reconciliation. AFC reduces errors in collection, reconciliation, and accounting. An AFC system is essential for areas with interoperable agreements to distribute funds, using common fare media.

Electronic Fare Collection - Electronic fare collection is facilitated by use of magnetic or smart cards for fare media. Electronic fare collection eliminates the need for cash in system and provides a means to collect data on ridership electronically. Electronic fare collection requires significant capital investment. An electronic fare box may cost $10,000 per vehicle. A smart-card reader can add an additional $2,000 to $3,000 per fare box. A centralized management system ranges in cost from $100,000 to $200,000, and ticket vending machine may cost $30,000 per unit.[9]

Vehicle/Component Monitoring

Automated vehicle/component monitoring includes remote sensing of operating vehicles. By identifying potential problems real-time, component monitoring assists in maintaining vehicles and keeping more vehicles operating.

Patron/Traveler Information

Disseminating information for transportation service patrons or travelers can be automated in many ways. Increasingly, transit systems have interactive websites, where transit information may be exchanged and patrons may access customer service centers to plan trips or purchase fare media. A uniform platform for information across service providers can increase efficiencies from the user's perspective, so that a user may coordinate trips between providers or across jurisdictions in the most expedient manner.

Automated Traveler Information System (ATIS) - ATIS includes the entire range of electronically transmitted transit information. An inherent strength is that ATIS permits information to be accessible at any time. The means to distribute

[8] Ibid.
[9] *TCRP Report 84,* page 16.

information through ATIS are broad, via cellular telephones, internet, variable message signs, personal digital assistants and others.

Technology Standardization

Using the same infrastructure across various systems–such as among transportation service providers, local government agencies, and departments of transportation–is called ITS integration. The power of ITS integration is that it establishes a common control which can be used for coordinating service operations, communicating between agencies and organizations, and implementing programs like transit signal priority or preemption. When all organizations are using the same technology platform within a geographic area, the exchange of information and data can be accomplished more readily. Technology training and ongoing operations and maintenance of the technology can be shared among the organizations, thereby reducing costs.

Resources

Transportation Research Board, *Transit Cooperative Research Program (TCRP) Report 84, E-Transit: Electronic Business Strategies for Public Transportation, Volume 6, Strategies to Expand and Improve Deployment of ITS in Rural Transit Systems*, Washington, D.C., 2005

Dan Boyle & Associates, *Technology/Software Needs Assessment and Implementation Plan for Antelope Valley Transit Authority*, February 18, 2004.

Transit Core Suite of Technologies, T3 Presentation, May 22, 2007.

U.S. Department of Transportation ITS Website: *www.its.dot.gov/index.htm*.