

Berkeley-Charleston-Dorchester Regional Human Services Transportation Coordination Plan



DRAFT

Prepared by



for the

South Carolina Department of Transportation

and the

Berkeley-Charleston-Dorchester 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 Berkeley-Charleston-Dorchester (BCD) region in its continuing efforts to develop an efficient and effective transit service network.

1.1 Background¹

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 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 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 from 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

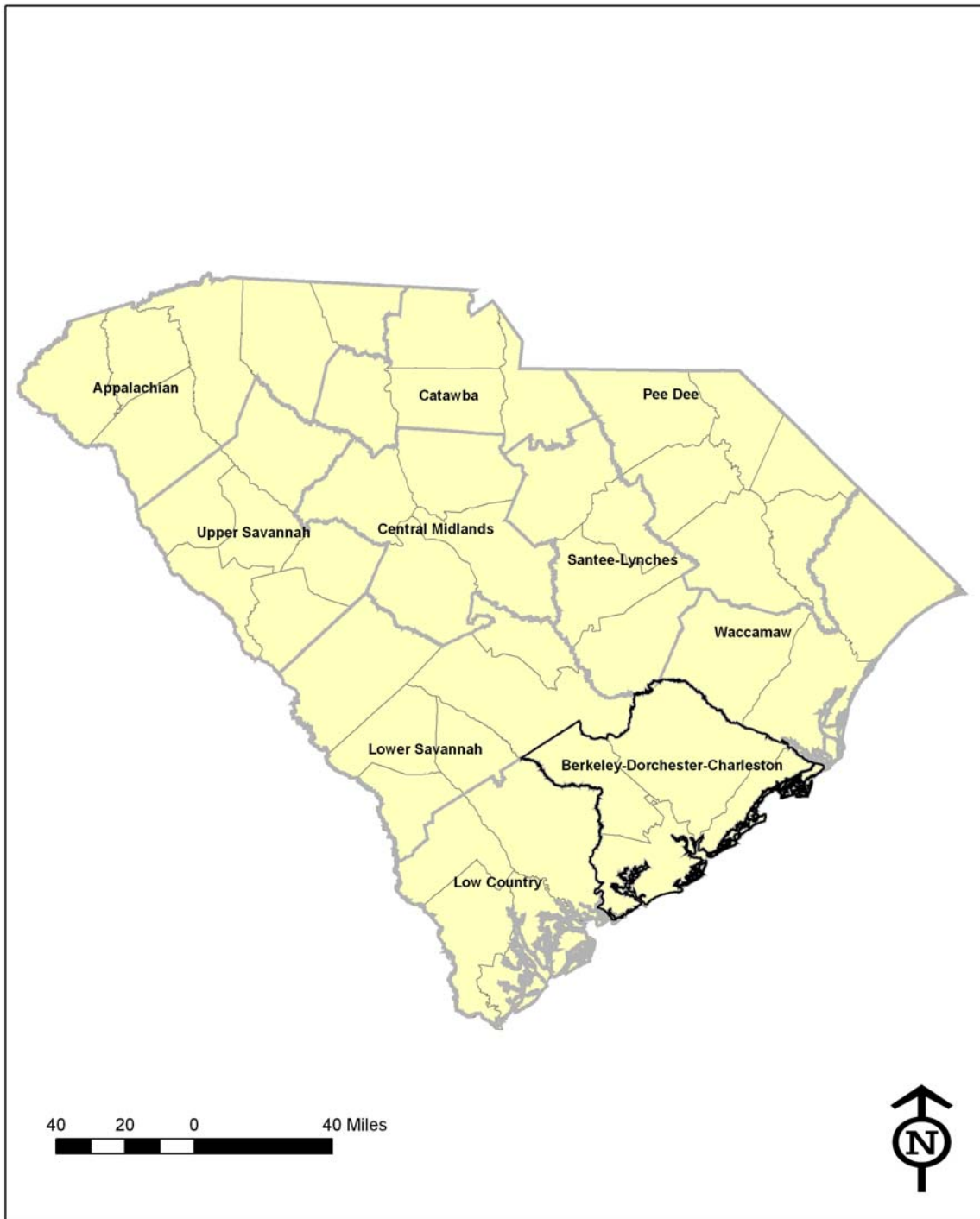
The consultant team of TranSystems/URS, with oversight from SCDOT and a committee of COG representatives, has developed ten regional coordinated plans, one plan for each of the State's COG regions. See Figure 1. The regional coordination plans are intended to meet the requirements of SAFETEA-LU, and 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 BCD Council of Governments 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.

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

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



Source: South Carolina Department of Transportation.

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 person 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.

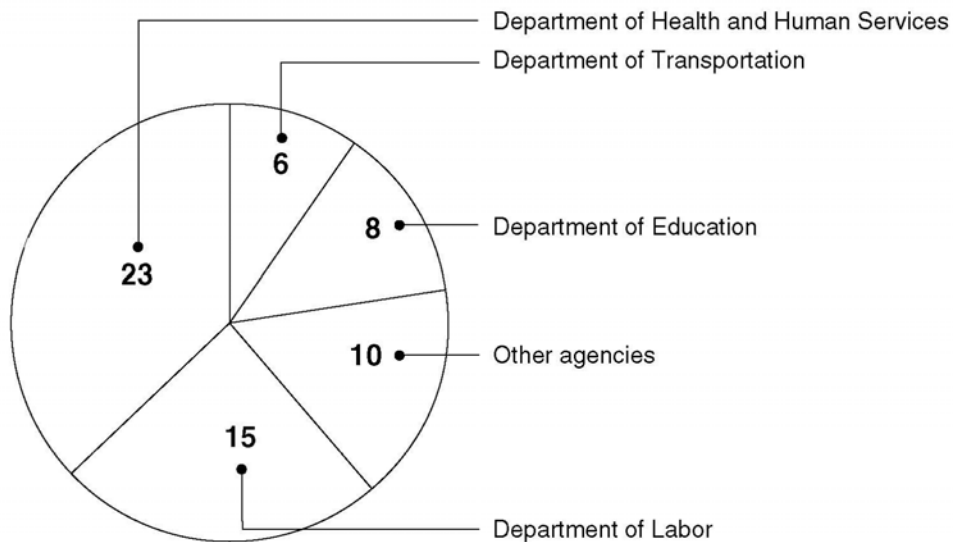
1.3 Funding Barriers to Coordination

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 of 2003, the US General Accounting Office (GAO) issued a study on Federal transportation funding and coordination entitled Transportation—Disadvantaged Populations. The study reported that there were sixty-two federal programs that fund transportation. Of those, sixteen are regularly used for public transportation with six from the USDOT through the Federal Transit Administration (FTA). See 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. Grants for Supportive Services and Senior Centers—*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 sixteen 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 enacted. The New Freedom program (Section 5317) is intended to provide operating and capital assistance to services that go beyond ADA complementary paratransit requirements.

Table 1 explains, in brief, each of the top sixteen transportation programs (plus the New Freedom Program) including the responsible federal agency, typical recipients, target population, and the scope of funding. As seen in the table each funding program covers a variety of transportation costs. Some programs are targeted to specific populations

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

while others (such as many of the USDOT programs) are open to the 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 US DOT 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 (various 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 Dept 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, 2 nd and 3 rd shift needs, need to take children to day care	No specific regulations dealing with transportation

Section 1: Purpose and Background of Coordination Plan

Program	Responsible Agency	Recipients	Target Population	Transportation Funding	Coordination Issues	Other Information
Vocational Rehabilitation Department	US Dept 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 Dept of HHS (Medicaid)	DSN Boards	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, and transportation for 2 nd and 3 rd shifts	Since mainstreaming is an ultimate goal, a client could be trained to use transit and community placements try to take into account bus service
Head Start	US Dept 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	
Grants for Supportive Services and Senior Centers	US Dept 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 Dept. 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	US Dept of HHS		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 BCD Region* which 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 BCD Region

The BCD region consists of three counties in eastern South Carolina: Berkeley, Charleston, and Dorchester. Refer back 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 Region⁶

The BCD region is comprised of four counties in center of South Carolina: Berkeley, Charleston, and Dorchester.

Overall Population

In 2005, the combined population of the BCD region was approximately 600,000 people. Charleston County was the third largest county in South Carolina, behind Greenville and Richland Counties. Between 2000 and 2005, all three counties grew at a rate higher than the state's average of 6.1 percent. Dorchester County, at a rate of 17.1 percent, grew nearly three times faster than the state as a whole. The entire region had a population growth rate of 8.4 percent from 2000 to 2005, two percent higher than that of the state.

Elderly Population

In 2004, 12.4 percent of the South Carolina's population was 65 years and older. All three BCD counties had a smaller proportion of elderly people than the state as a whole. Charleston County had 11.7 percent of its population aged 65 years of age and older. Dorchester and Berkeley counties had the two smallest proportions of seniors in the state. Dorchester's senior population was 9.0 percent and Berkeley's was 9.4 percent. The BCD region's senior community consisted of 10.6 percent of the population, nearly two percent lower than the state's average.

Disabled Population

According to the 2000 US Census, South Carolina has a population of 810,857 persons with a disability approximately 22.2 percent of the total population. The BCD Region was slightly lower than the State average with 105,717 persons with a disability (22.2 percent of the total regional population). Of the region's counties, Berkeley County has the highest percentage of disabled persons with 23.0 percent (28,611 persons). Charleston and Dorchester County have 59,609 (21.1%) and 17,497 (20.1%), respectively.

Persons Below the Poverty Level

Approximately 13.8 percent of the state's population (in 2003) was considered to be at or below the poverty level. Of the three BCD counties, only Charleston County had a higher poverty level than the state as a whole at 14.1 percent. Dorchester and Berkeley

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

counties had poverty levels below the state's average, with 11.2 percent and 11.9 percent, respectively. The BCD region is relatively affluent.

Median Household Income

In 2003, South Carolina had a median household income of \$38,003. All three of the region's counties had median household incomes above the state's. Dorchester County had the highest income level at \$44,534, followed by Berkeley at \$42,023 and Charleston at \$38,233. The median household incomes in Berkeley and Dorchester Counties are among the top three (ranked by county) in the state.

Change in Daytime Population

Charleston County has the second highest daytime population increase in the state, gaining 13 percent from daily commuters. The county seems to be the focus of employment and other usual daytime travel. On the other hand, Dorchester and Berkeley Counties have among the highest daytime population losses in South Carolina with 17.6 percent and 11.7 percent, respectively. Large portions of these counties are suburban towns with residents commuting to Charleston County for work.

Demographic Summary

The BCD region is growing rapidly, and areas outside of the center city of Charleston are becoming more and more suburban in nature. All three counties have a high growth rate, and the region as a whole is relatively young and affluent. These characteristics indicate a growing need for commuter-oriented transit services between residences in the suburbs and job opportunities in the city, although it is important to note that there are significant concentrations of low-income residents in all three counties as well. For these residents, transit will continue to be a needed source of mobility.

2.2 Services⁷

The Berkeley-Charleston-Dorchester region is served by two public transit providers: the Rural Transportation Management Association (BCDRMTA) and the Charleston Area Regional Transportation Authority (CARTA).

- BCDRMTA provides fixed route service and contracted demand response services in the rural portions of Berkeley, Charleston, and Dorchester Counties.
- CARTA provides fixed route service (including local, neighborhood, and express routes) and complementary paratransit service in the Charleston urbanized area.

Regional Overview

For the period from FY 2002 to FY 2005, the vehicle fleet for public providers in the BCD region shrank from 90 to 65 vehicles. During the same period, ridership decreased from approximately 4 million passenger trips in FY 2002 to just over 1 million passenger trips in FY 2005. These reductions are due entirely to the massive service cuts that CARTA was forced to make in response to local funding constraints.

⁷ From the Statewide Transportation Plan, 2007.

However, using a portion of the proceeds from the recently-enacted half-cent transportation sales tax in Charleston County, CARTA has once again expanded its services since the time period of the data that are shown. At the same time, BCDRTMA has experienced stable operations and is poised for modest growth over the coming years.

Table 2 shows trends in the number of vehicles operated in maximum service by public transit providers in the region. As stated above, the overall fleet reductions are due to large cutbacks in CARTA's services.

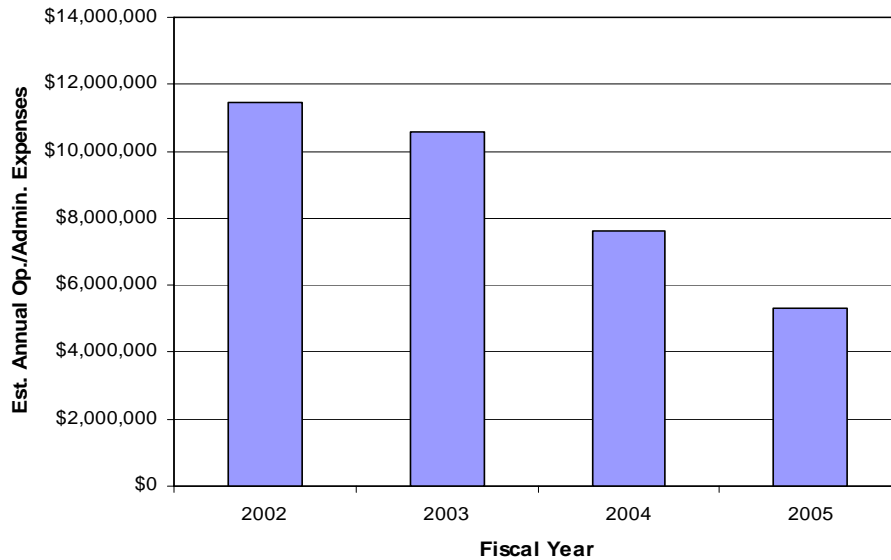
Table 2: Region Composite Vehicles in Maximum Service (FY 2002 to FY 2005)

Area	Fiscal Year			
	2002	2003	2004	2005
Fixed Route	73	58	62	50
Demand Response	17	15	15	15
Other	0	0	0	0
Totals	90	73	77	65

Source: Data by SCDOT

Estimated annual operating costs of the public transit systems in the region totaled \$5.3 million in FY 2005. Figure 3 is indicative of the large-scale service reductions at CARTA, with operating costs decreasing from approximately \$11.5 million in FY 2002. Although not shown in this chart, annual operating costs have since increased in conjunction with CARTA's expanded services.

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



Source: Data by SCDOT

Trends in Ridership and Amount of Service Provided

During the four-year period between FY 2002 and FY 2005, the BCD region experienced a significant contraction in ridership and in the amount of service provided. Tables 3 to 5 present composite data for ridership, vehicle miles of service, and vehicle hours of service for the systems operating in the region. The vast majority of the

contraction is due to major service cuts made by the CARTA system in response to local funding constraints.

Table 3 shows ridership by type of service (fixed route, demand response, other) as well as by geographic area (urban versus rural). Ridership declined significantly for fixed route and demand response services. CARTA's cuts are also evident in the ridership reduction shown in the urban area. However, BCDRTMA's ridership actually has increased, as illustrated by the "rural" ridership.

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

Service Type	Fiscal Year			
	2002	2003	2004	2005
Fixed Route	3,682,789	3,373,911	2,006,491	823,289
Demand Response	79,008	75,281	58,620	47,868
Other	25,378	34,400	31,400	48,857
Totals	3,787,175	3,483,592	2,096,511	920,014

Area	Fiscal Year			
	2002	2003	2004	2005
Urban	3,702,574	3,395,037	2,018,011	816,736
Rural	84,601	88,555	78,500	103,278
Totals	3,787,175	3,483,592	2,096,511	920,014

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). These trends mirror those established through the ridership data. Overall, fixed route and demand response ridership declined significantly, but BCDRTMA's services increased, as shown by the "rural" data.

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

Area	Fiscal Year			
	2002	2003	2004	2005
Fixed Route	2,519,789	2,500,721	1,555,337	868,775
Demand Response	788,658	674,186	470,034	346,275
Other	119,274	175,891	230,906	432,322
Totals	3,427,721	3,350,798	2,256,277	1,647,372

Area	Fiscal Year			
	2002	2003	2004	2005
Urban	2,987,313	2,867,589	1,679,011	801,592
Rural	440,408	483,209	577,266	845,780
Totals	3,427,721	3,350,798	2,256,277	1,647,372

Source: Data by SCDOT

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

Area	Fiscal Year			
	2002	2003	2004	2005
Fixed Route	2,519,789	2,500,721	1,555,337	868,775
Demand Response	788,658	674,186	470,034	346,275
Other	119,274	175,891	230,906	432,322
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Source: Data by SCDOT

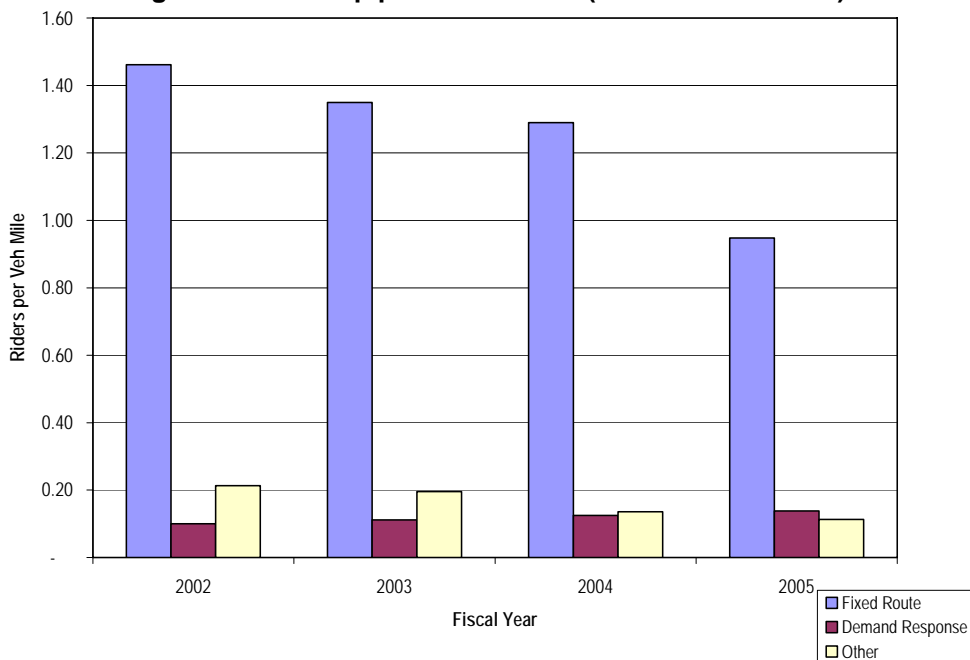
Trends in Efficiency and Effectiveness

Figures 4 through 6 Figures present regional trends in revenue and expenses as well as measures of key cost efficiency and service effectiveness. These figures include the following:

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

As shown in Figure 4, the ridership per vehicle for fixed route services dropped significantly, due to the cuts in CARTA services. However, this measure for demand response services showed a slight increase.

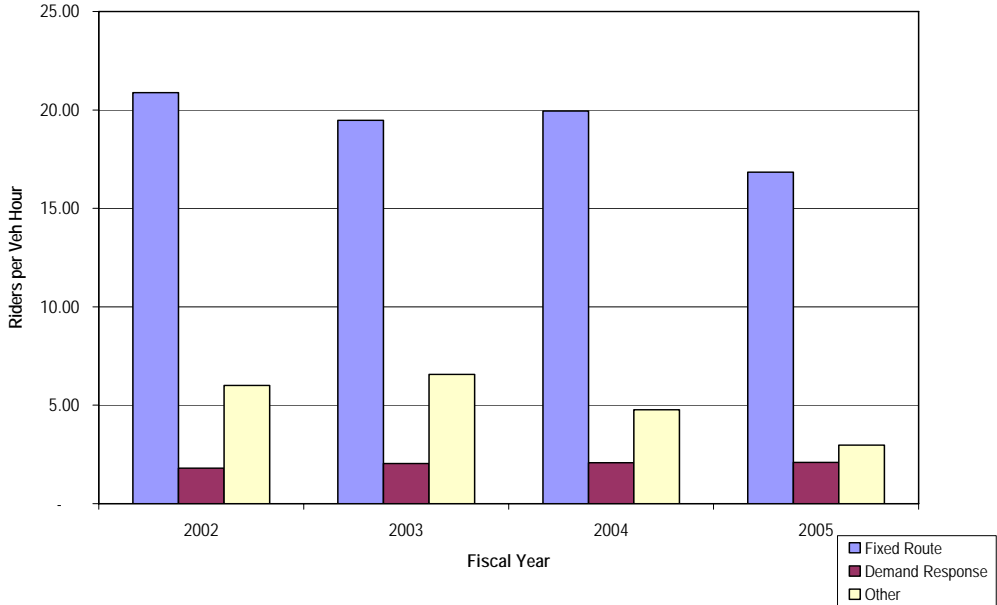
Figure 4: Ridership per Vehicle Mile (FY 2002 to FY 2005)



Source: Data by SCDOT

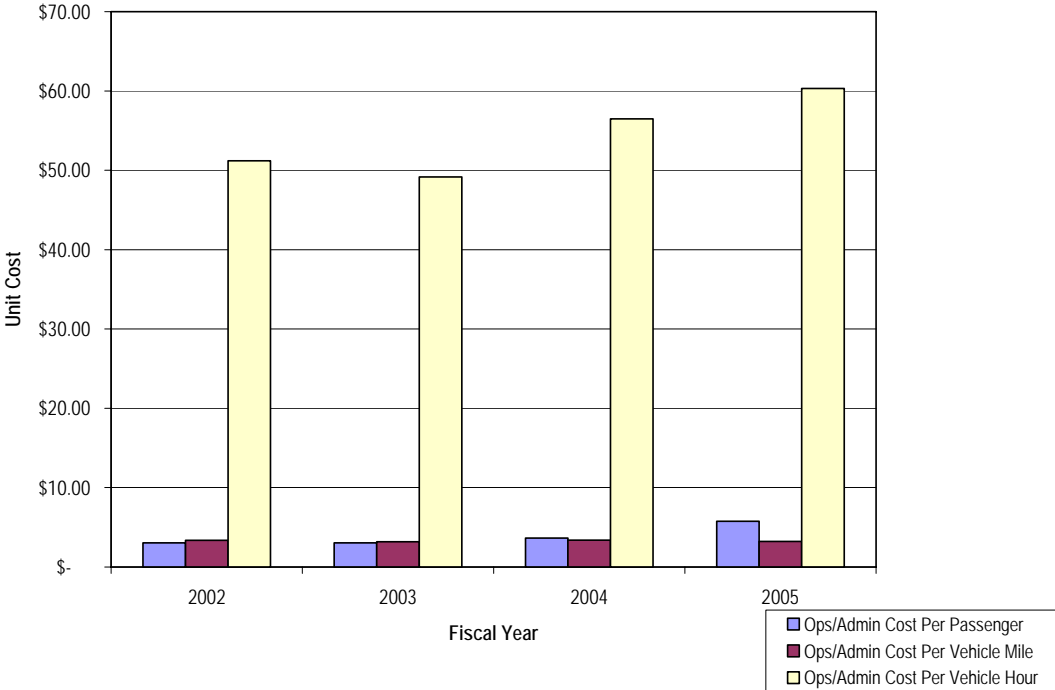
Despite major drops in service and ridership for the BCD region from FY 2002 to FY 2005, the ridership per vehicle hour did not plummet so distinctly. As shown in Figure 5, the number of passengers per vehicle hour hovered at or just below 20 until dropping more significantly in FY 2005.

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

The operating cost per vehicle mile remained stable, while the operating cost per vehicle hour increased notably. This increase is likely due to the fact that even though some operating costs are reduced with service cuts, some “fixed” operating costs and administrative costs still are incurred. Likewise, when the ridership decreased drastically, the operating cost per passenger increased.

Other Transportation Services

There are several other agencies in the region that currently provide their clients with transportation using “in-house” resources including (this is not an all-inclusive list):

- The Dorchester Senior Center operates four vehicles to and from its congregate meal sites in St. George and Summerville.
- The Independent Transportation Network (ITN) has recently begun providing transportation for the elderly and disabled in the Greater Charleston Area. Predominantly using volunteer drivers operating private automobiles, ITN does not restrict trip purpose and is funded through numerous private as well as public funding sources.
- Head Start operates four vehicles for its programs on Edisto and Kiawah Islands primarily for children of migrant families.
- The Trident AAA operates transportation for elderly individuals throughout the region. There are eight to ten programs for hundreds of clients at nursing homes, assisted living facilities and congregate meal sites. Transportation services are provided at no cost to the individual.
- The Disabilities and Special Needs Boards (Berkeley, Dorchester and Charleston Counties) operate transportation services to and from Inter. Care Facilities and provide vehicles to each of the respite homes throughout the region.

2.3 Identified Transportation Gaps and Needs

Two key sources of information describe BCD’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 BCD’s human services agencies and other stakeholders held on November 21, 2006, February 15 and April 12, 2007.

2.3.1 2006 SCDOT Survey

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. This section summarizes that survey.

In late 2006, about 40 surveys were distributed to BCD region service providers. The survey was approved and tabulated by SCDOT and distributed by BCD COG. Seven questionnaires were returned. The survey covered seventeen 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

Key observations from the survey are:

- The Region is only comprised of three counties but they are relatively large.
- Varied destinations served but primary issue is getting to remote rural areas.
- Many operators have similar peaks.
- Most of the surveys did not include a response to the question regarding areas of interest for coordination.

Tabulation of survey responses and a copy of the survey instrument can be found in Appendix A.

2.3.2 BCD COG Sponsored Meetings

During the course of the project, BCD COG has sponsored three meetings attended by representatives of human service agencies and transportation providers. The meetings were held to facilitate a discussion about transportation issues and potential strategies to address these issues. A meeting was scheduled for January 18, 2007 but there was a mix up in the notification and the meeting generated very little attendance so an additional meeting was held in February to encourage more participation from regional stakeholders. All of the meetings advanced the development of the coordination plan through the identification of transportation gaps, discussion regarding the barriers to and opportunities for coordination. Short summaries from each meeting are included in Appendix B and the discussions at these meetings served as the basis for Sections 3 and 4 of this plan. A fourth meeting will be held in July to present the draft Plan as well as an evaluation process to regionally prioritize projects.

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 BCD Region. The survey instrument and complete summary of responses are included in Appendix A.

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, scheduling, and vehicle maintenance inventory. Approximately one-third of all the responding providers use technology to support reservations, dispatching, mapping/planning, and eligibility determination. Fourteen 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	8	3	0	0	1	7	4	2	0
Central Midlands COG	13	9	6	6	7	12	5	5	4
Low Country COG	0	0	0	0	0	0	0	0	0
Lower Savannah COG	10	7	4	4	3	6	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	63	39	22	21	28	56	25	36	14

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

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	1	0	0	1	2	0	0	0
Central Midlands COG	2	4	3	2	5	2	2	2	3
Lowcountry COG	0	0	0	0	0	0	0	0	0
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	12	15	12	8	18	13	6	5	11

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.

Another statewide effort to utilize technology for the provision of transportation services in the Virtual Transit Enterprise (VTE). Beginning in Fiscal Year 1998, the Intermodal Surface Transportation Efficiency Act (ISTEA) and its successor, the Transportation Equity Act for the 21st Century (TEA-21), authorized the Federal Transit Administration

(FTA) to award capital grants to South Carolina Department of Transportation (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 increase 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 BCD 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, BCDCOG sponsored meetings of area human service providers to discuss transportation coordination and the discussion revealed that significant coordination already exists within the Region. The BCDRTMA has developed relationships with a number of the human service agencies and expanded its scope of services considerably in the recent past. BCDRTMA and CARTA have also redesigned routes to create connections between rural areas and the urban core to enhance mobility.

The Trident Area Agency on Aging has been working on several initiatives to increase coordination in the Region specifically for seniors. In addition to identifying suppliers and other resources designed to transport the elderly, Trident has also focused on improving the sources of information available to its clients, through continual communication with transportation providers and the development of brochures.

Charleston County has also instituted a sales tax for transportation improvements, including dedicated funding for CARTA. Although these funds are not specifically for increases in human service transportation, improvements to the fixed route service in Charleston may reduce the pressure on human service agencies since their clients may be able to use the transit network for some trips.

3.2 Regional Transportation Gaps/Barriers to Coordination

Through facilitated meetings and the survey results the process identified gaps in human service transportation within the BCD Region. The list of gaps is not intended to be inclusive of all gaps but these are considered by those involved in the meetings 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 BCD region stem from high growth in population and the number of remote rural areas that are difficult to serve. Increases in elderly, disabled and low/fixed income population are expected to be significant and will place more strain on the human service transportation system. Transportation providers cited the long travel times to remote areas and limited resources (vehicles and revenue) contribute to these issues.

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 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:

- General purpose trips such grocery shopping and other basic needs are under-served.
- Need for better distribution of information to the riding public about available transportation services.
- Need for vehicle replacements is a large capital issue.
- Rural areas like Johns Island, Awendaw, Edisto Island and other areas outside the ADA paratransit service area (Mt. Pleasant, West Ashley and James Island are difficult to serve.
- Late afternoon and return are difficult to serve and experience reliability issues.
- There is an established peak between 4-9 AM with overcrowding on vehicles.
- Access to suburban jobs and lack of transit service for 2nd and 3rd job shifts.
- Higher demand for out of region trips.
- Difficult to retain drivers especially in the rural areas.

3.3 Opportunities to Coordinate

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

- 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 clearing house for centralized information availability as well as scheduling and dispatching of services.
- Regional vehicle maintenance to reduce expenses.
- 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 BCD COG.

Draft coordination strategies and actions were developed at a meeting of human service providers on April 12, 2007 hosted by BCD 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. These are the main issues in brief:

- More service (more days, hours, geographic coverage)
- Centralized real-time scheduling.
- Regional application for §5309 funds.
- Expense pooling program (fuel, insurance, training etc.)
- 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.

Table 8: Coordination Strategies (Taken Directly from the April 12th Meeting)

Gaps	Administrative	Information Sharing/Capacity Management	Future Ops. Planning
4/12/2007	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.
Traveler's income above Medicaid threshold-region-wide issue (often uninsured)	Voucher Program	Use Technology-mobile based data terminal	---
No options for general purpose trips	Service Provider-Coordination meeting	---	Volunteer driver program
Rural areas-Johns Island, Awendaw, Edisto Island (low income areas)	---	---	RTMA-expansion of rural service centralized p/u points w/ fixed routes partners w/ faith based agencies, neighborhood associations, human service agencies, systematic growth
Gap outside ADA service area, Mt. Pleasant, W. Ashley, James Island	Change eligibility policies	---	---
Aging vehicles	Pooling maintenance service and Insurance, Drug & alcohol testing, and training	---	---
Travel time too long (especially wait time after an appointment)	---	Real-time scheduling; web-based scheduling	---
Berkeley County, Dorchester, Tri-County-high growth, 30,000 housing units, Long-term aging of the population	---	---	Expand CARTA service to areas of high growth-Summerville/Moncks Corner
Itinerary planning-mobility management; TANF; Seniors; Access to jobs	211 program, marketing program (brochure), develop inventory of service, mobility manager, stop call center, brochure (Trident Health Services), United Way Resources Guide ---	---	---
CARTA Paratransit service hours—M-F, 5am-1 am; Saturday, 7 am-1 am; Sunday 8am-11pm	---	---	Consider impact on ADA Paratransit system in conjunction with fixed route changes
Vehicles over capacity 4 am-9 am			---

Gaps	Administrative	Information Sharing/Capacity Management	Future Ops. Planning
Out of region trips	---	Vehicle sharing -utilize excess capacity	---
Employment for mentally disabled is part-time at odds hours—transportation is not always available	Voucher program	---	---
Driver retention (difficult job)	---	Inventory of service development	Ridesharing -TDM, increase pay-CDL Bonus incentive program.

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.

4.2.1 Administrative Actions

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

1. Raise public awareness of service through marketing programs. The Region has identified this as a required service for seniors but these programs should also target non-English speakers and disabled persons. The implementation of a travel training program may improve service utilization by these populations.
2. Vouchers 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 the 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 (including non-profits like the ITN) 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.
4. Related to the fare policy would also be an examination of eligibility requirements. Policies allowing non-program clients access to program vehicles would allow the system to take advantage of available capacity. Defining the user fee in that situation would be critical to the success of the policy. Expansion of

eligibility for the use of ADA services and other human service programs to seniors and rural residents will improve mobility but not without a cost implication.

4.2.2 Information Sharing/Capacity Management Actions

The Information Sharing/Capacity Management action items include:

1. Define a scope for a mobility manager to create a “clearing house” for transportation information as well as provide someone to facilitate resource pooling. The region will need to find a willing agency or there is the possibility of a call center or web-based Statewide Mobility Manager Program.
2. Manage driver and vehicles to better share resources by attempting to create an information resource or real-time scheduling function where providers will know what each has available in the way of capacity.
3. Coordinate transfers among RTAs to improve service on inter-regional trips. Charleston is a major destination for service providers outside the Region, if the cost allocation issue can be resolved then many of these providers could conceivably accommodate trips during the day.

4.2.3 Future Operations Planning Actions

Several of the gaps identified in the Berkeley-Charleston-Dorchester region require the expansion of services, fleets and/or driver pools. Actions under this category need additional resources to become a reality like the introduction of a sales tax dedicated to transportation as they have done in Charleston County. These 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. Expand CARTA service to areas of high growth, such as Summerville/Monck’s Corner.
2. Expand RTMA into rural areas and partner with other stakeholder entities, such as faith based organizations, neighborhood associations, and human service agencies.
3. Utilize volunteer while efficiently overcome liability and training complications, such as cost of insurance and training.

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.

These 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 carried out, 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 keys to 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. It makes sense, therefore, that any effort to promote coordination needs to be achieved by mutual cooperation of the affected entities. A working group, facilitated by BCD Regional COG, to tackle a given action would be an important step in forming and executing implementation projects.

The working group should be composed of stakeholder agencies and with people 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

- Establishing common driver qualifications
- Establishing 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, “establishing 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, of driver training regimens or drivers have ancillary duties besides driving.
5. Of the areas of disagreement, select the areas that are perhaps 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? Depending on the range of impact 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 affect a small inconsequential aspect of human service transportation or is more significant. The more significant the issue, the more challenging and the 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 require significant effort may be challenging to pull off, though a successful outcome could be enormously useful.

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.
- Outside practitioners can be a good source of information and advice. These people could either be invited to attend a meeting in the region or the working group might take a field trip to the practitioner'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 as a State DOT or a consultant.

5.4 Project Evaluation Guidelines

A major for the 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 BCD Region the following criteria should be considered when selecting projects.

1. Capital vs. Operational Assistance – a central theme among the gaps and strategies for coordinated transportation in the Charleston 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.

2. 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 in Charleston.
3. Projects that establish marketing programs or information dissemination to potential clients to encourage ridership should receive priority.
4. 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.
5. Projects that target new rural service and more specifically service to Johns Island, Awendaw, Edisto Island, West Ashley, Mt Pleasant and James Island should receive favorable ratings in the evaluation process.
6. Projects that relax eligibility requirements or increase the number of individuals eligible for service should be considered.
7. Programs that either subsidize users or indirectly reduce the cost for agencies to use private operators to support the human service transportation system should be regarded favorably.

Appendix A: 2006 SCDOT Survey

BCD Regional Responses

**South Carolina DOT Regional Coordination Plan
Transportation Provider Survey**

SCDOT, in cooperation with your area Council of Governments (COG), is developing a regional transportation coordination plan. The purpose of the plan is to identify strategies for various providers of health and human service transportation to work together to create more efficient and effective services. This survey will aid in the development of this regional coordination plan.

Name of Agency/Service Provider: _____

Primary Person Completing Survey: _____

Phone Number (for follow-up): _____

E-mail address (for follow-up): _____

Date Survey Completed: _____

1. What is your organization's service area?
To/from or within the following counties:

_____, _____, _____,
_____, _____, _____

2. What are the top four destinations served? (please be specific such XYZ Hospital or ABC Shopping Center)

3. What types of transportation services does your organization provide (either as an operator or a purchaser)? (check all that apply)

- On-demand/demand responsive
- Fixed route, fixed schedule
- Deviated (flexible) fixed route
- User-side subsidy
- Other: _____ (specify)

4. Either measured in total service hours or miles, approximately how much service is provided by your organization for each service type?

On-demand/demand responsive _____ annual hours/miles (*circle one*)

Fixed route, fixed schedule _____ annual hours/miles (*circle one*)

Deviated (flexible) fixed route _____ annual hours/miles (*circle one*)

User-side subsidy _____ annual hours/miles (*circle one*)

Other: _____ (*specify*) _____ annual hours/miles (*circle one*)

5. What days and times is service provided? What are times are peak services operated during these days?

<u>Day of Week</u>	<u>Times of Service</u>	<u>Peak Service Times</u>
Monday to Friday	_____	_____
Saturday	_____	_____
Sunday	_____	_____

6. Please tell us about who uses your service.

Number of annual riders _____

Number of eligible clients
(*may include people who don't ride often or regularly*) _____

Approximate number of daily trip denials _____

7. Please tell us about the type and number of passenger vehicles used to operate for service.

<u>Type</u>	<u>Number</u>
Large vehicles (<i>30 or more seats</i>)	_____
Medium vehicles (<i>16 to 29 seats</i>)	_____
Small vehicles (<i>8 to 15 seats</i>)	_____
Automobiles/Minivans	_____
Other: _____ (<i>specify</i>)	_____

Total passenger vehicles _____

Check here if my organization does not operate vehicles.

8. Which of these funding source related restrictions apply to the use of the vehicles used in your service (*check one*):

There are no restrictions; vehicles can serve general public

Vehicles can only serve elderly and/or disabled

Vehicles can only serve clients of a specific human service program

- Vehicles have a mix of restrictions depending on the funding source of that vehicle.
 - Vehicles can only serve _____ (*specify*)
9. Please tell us about the driver labor force. Please tell us whether they have other duties for your organization besides driving by indicating the percentage of time driving.

<u>Type of Driver</u>	<u>Number</u>	<u>Percent time driving</u>
Paid, full time	_____	_____
Paid, part time	_____	_____
Volunteer, full time	_____	_____
Volunteer, part time	_____	_____

- Check here if my organization does not have drivers.
10. Who schedule trips? Does that person(s) have other job duties (if yes, approximately what percent of time is done schedule versus the other duties)?
11. Tell us about the use of advanced technology to manage your operation. Which of these functions are supported through the use of computer and similar electronic systems? (*check all that apply*)

- Office (e.g., word processing, electronic spreadsheet)
- Scheduling
- Reservations
- Dispatching
- Mapping/Planning
- Specialty Accounting (bookkeeping, invoicing, etc.)
- Specialty Human Resource
- Vehicle maintenance and inventory
- Internet/ web based applications

12. How do you communicate with your drivers while they are on the road? (check all that apply)

- Cell Phones
- Two-way radios
- Combination of phones and radios
- Do not communicate with drivers on the road

13. What is the annual human service transportation budget for your organization?

14. What methods are used to collect fares from riders?

- No fares are collected
- Fares are placed in money bags or money box
- Fares are deposited in a fare box
- Fares are billed to the rider via invoice
- Other: _____ (*specify*)

15. Do you currently coordinate efforts with other providers in area? If so, which areas:

- Grant admin
- Maintenance
- Training
- Marketing/Public information
- Operations
- Other: _____ (*specify*)

16. Which of these areas (from question 15) benefit your organization most? Least? Why?

Benefit Most:

Why?

Benefit Least (or not at all):

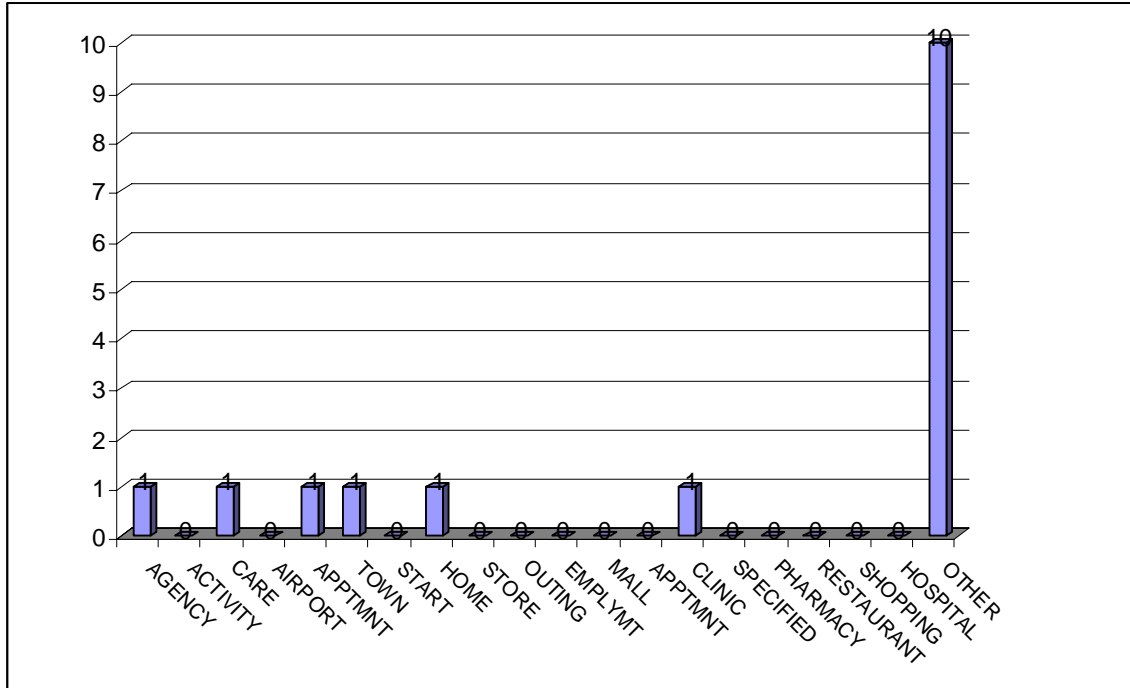
Why?

The pages that follow present responses to selected questions.

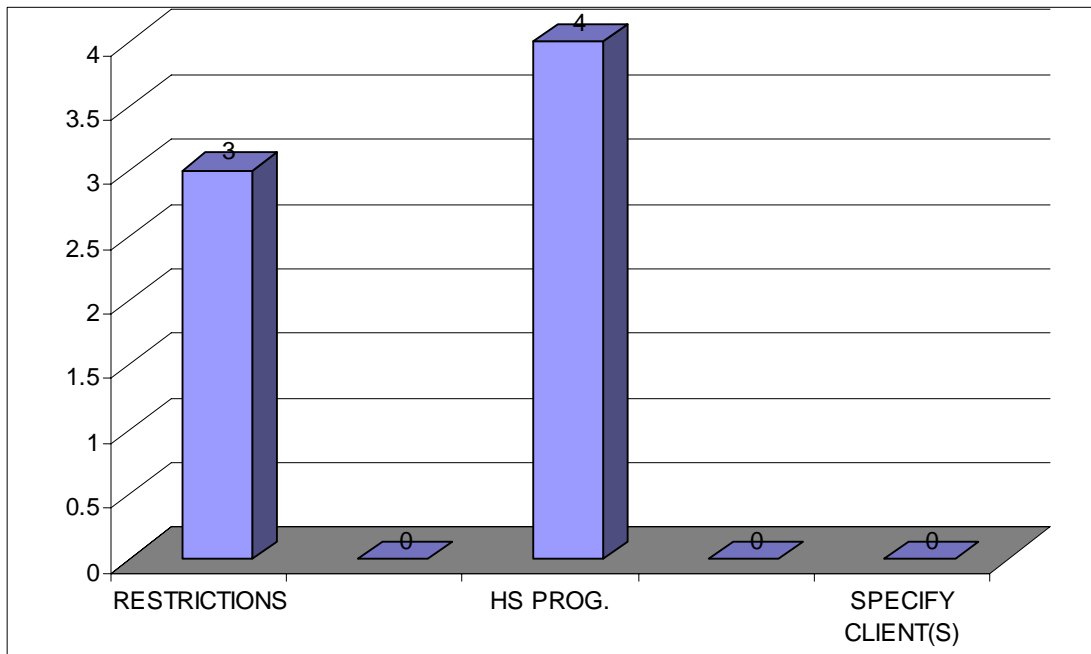
Q1.: Counties Served:

Berkeley, Charleston, and Dorchester

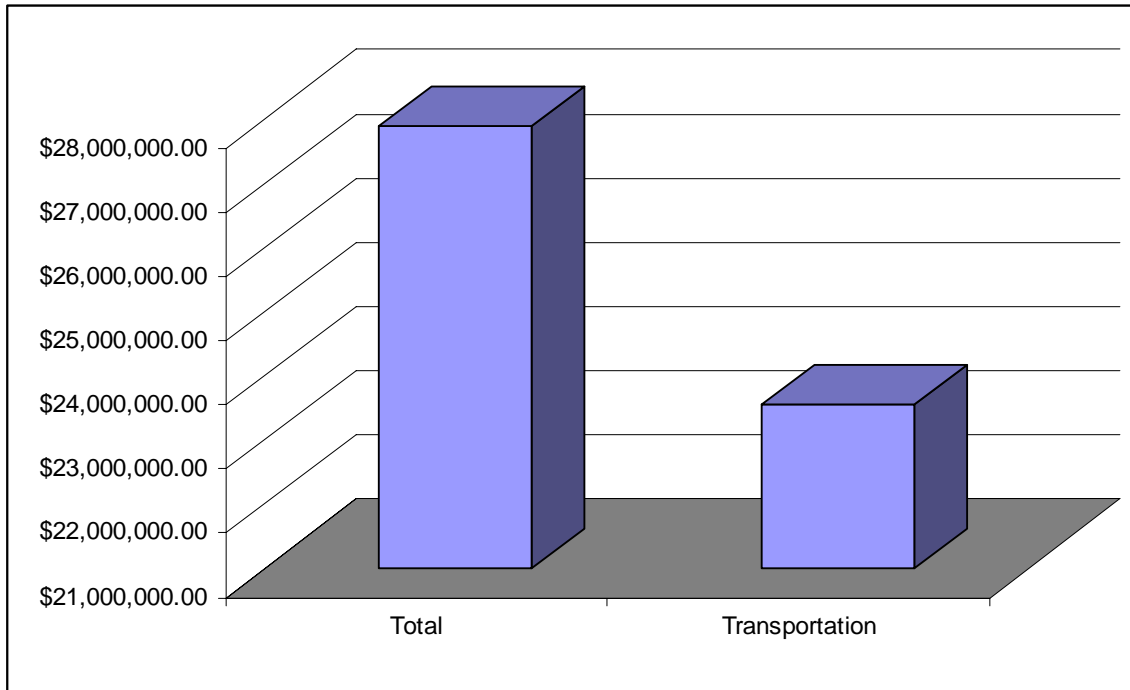
Q2.: Top Four Destinations Served



Q8.: Restrictions by Funding Source on Sharing of Vehicles

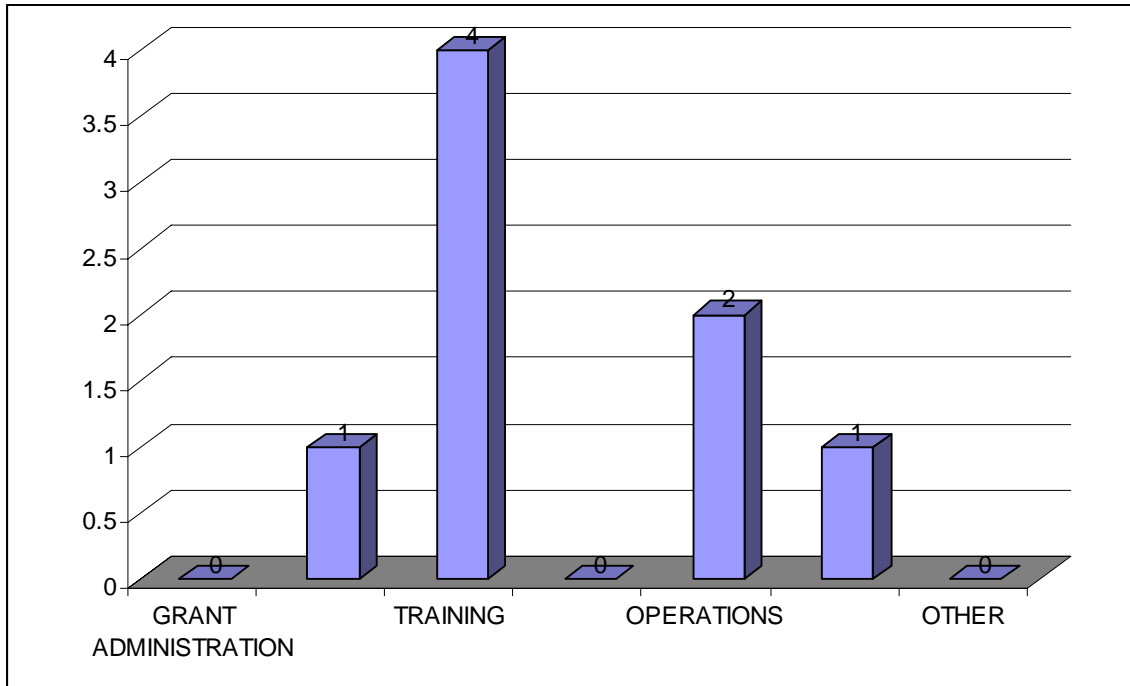


Q13.: Transportation Budget



Q16.:

Areas of Coordination Interest



Appendix B: Regional Meeting Summaries

REGIONAL TRANSIT COORDINATION PLAN
BCDCOG REGIONAL MEETING
MEETING: TUESDAY, NOVEMBER 21, 2006
11 AM TO 12 PM at BCDCOG OFFICES

Staff Present: Brian Piascik, URS Corporation
Vonie Gilreath, BCDCOG
Doug Frate, SCDOT
David Burgess, SCDOT

Participants: Peter Tecklenburg, CARTA
Paul Franklin, ITN
Rep, Dorchester Senior Center
William Hutto, BCD RTMA
Ron Mitchum, BCDCOG
Jane Lareau, Coastal Conservation League
Joann Tillman, Rural Mission Inc.
Gene Vasilew, Trident Area Agency on Aging
Others – Need Sign-in Sheet

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.

- Head Start from Edisto Island
- Council on Aging
- BCDRTMA
- Dorchester Senior Center
- BCDCOG

- ITN
- CARTA

Brian Piascik discussed the next steps and the next meeting was scheduled.

Another meeting was scheduled for January 18th but was cancelled due to a mix up with notification and was rescheduled for February 15, 2007.

REGIONAL TRANSIT COORDINATION PLAN
BCDCOG REGIONAL MEETING
MEETING: THURSDAY, FEBRUARY 15, 2007
2 PM at BCDCOG OFFICES

Staff Present: Brian Piascik, URS Corporation
Jeff Burns, BCDCOG
David Burgess, SCDOT Planning Office

Participants: Peter Tecklenburg, CARTA
David Gehr, Charleston/Dorchester Mental Health Center
Susan Saylor, AccessNet/ Wheels of Faith
Ron Daniels, Berkely Community Mental Health
Arnold Collins, Charleston County Human Service Commission
Sheila West, Charleston County Human Service Commission
William Hutto, BCD RTMA
Alice Shook, Berkeley Citizens, Inc.
Ethel Harrison, Trident Area Agency on Aging
Elaine Sampson, Trident Area Agency on Aging
Kelly Rutherford, SC Vocational Rehabilitation

Discussion focused on Gaps in service. There were arranged into three categories: Temporal; Geographic, and Financial.

Temporal Gaps

- CARTA Paratransit service hours—M-F, 5am-1 am; Saturday, 7 am-1 am; Sunday 8am-11pm
- Travel time too long (especially wait time after an appointment)
- Employment for mentally disabled is part-time at odds hours—transportation is not always available
- No options for general purpose trips
- Vehicles over capacity 4 am-9 am

Geographic Gaps

- Rural areas-Johns Island, Awendaw, Edisto Island (low income areas)
 - Language barrier
 - Berkeley County-high growth
 - 30,000 housing units challenge
- } Commuter based

- Long-term aging of the population
- Gap outside ADA service area
 - Mt. Pleasant
 - W. Ashley
 - James Island
- Out of region trips

Financial

- Traveler's income above Medicaid threshold-region-wide issue
- Under insured and uninsured travelers
- Itinerary planning-mobility management
 - Mothers
 - TANF
 - Seniors
 - Access to jobs
- Aging vehicles
- Programmatic mandates for service sites
- Driver retention (difficult job)

General discussion

- "Main-Streaming," of mental and physically disabled (geographic dispersion add to transportation challenge
 - Call on family, carpools, and people in neighborhood for transportation is a criteria for job placement
- Lack of information-marketing (211 line)
- Performance measures on this plan—what is success?
- Coordination may not be the answer—efficiency may come for disaggregation
- Map service areas and spatially reference demand areas based on calls (Inventory step)
- Obtain Charleston County standing routes (Inventory step)
- Out of county destinations-Augusta, Sumter, Columbia (mainly Chas. Co. Human Service Commission providing this service)
- Medicare to provide transportation—new policy

Barriers to Coordination

- Consider cost-effectiveness of project
- Rules associated with funding source
- Freedom of Choice issues
- Medicaid-high volume service-requires large fleet

Strategies

- Inventory of services be made available to public
- 211
- Transfer points
- Buy tickets

- Reduce Freedom of Choice
- Coordinate out-of-regional trips
- Coordinate volunteer transportation
- Coordinate training, fuel purchases (procurement), insurance (procurement); vehicle maintenance; trip scheduling
- Locate doctor's people do like
- Market healthcare option in region
- Involve community health centers-Fetter, Sea Island, and St. James/Santee
- Driver recruitment
- Statewide network for out-of-county trips

Next Meeting— April 12, 2007 at 2:00 PM

REGIONAL TRANSIT COORDINATION PLAN
BCDCOG REGIONAL MEETING
MEETING: THURSDAY, APRIL 12, 2007
11 AM TO 12 PM at BCDCOG OFFICES

Staff Present: Frank Curti, URS Corporation
Brian Piascik, URS Corporation
Jeff Burns, BCDCOG
David Burgess, SCDOT Planning Office

Participants: William Hutto, BCD RTMA
Susan Richards, SR Concepts
Allen Davis, Logisticare
Felita Martino, SCDDSN
Debbie Anderson, SC Commission for the Blind
Alonda Thomas, Chas. Co. Human Service Commission
Charles Johnson, Jr., SC Silver Hair Legislature
Maribel Santiago, Rural Mission Inc.
Joann Tillman, Rural Mission Inc.
Dora LaTorre, Chas. Co. DSS
Ethel Harrison, Trident Area Agency on Aging
Gene Vasilew, Trident Area Agency on Aging

Frank Curti (URS) opened the meeting with introductions from the participants and staff members in attendance. Following the introductions, Mr. Curti gave a brief overview of the previous three meetings and the purpose of the study, with emphasis on the importance of the coordination process for accessing the available 5310 (Elderly and Disabled), 5316 (JARC) and 5317 (New Freedoms Act) funding. At the last meeting, the discussion involved identifying the various service gaps in the region. Additionally, the group began to discuss potential strategies for meeting the identified gaps in service. The main goal for today's

meeting is to continue the discussion and develop strategies to address the gaps and needs.

In addition to meeting the Federal requirements set out in SAFETEA-LU, the coordination plans being developed in all ten South Carolina COG regions will benefit other human service programs in the State. Once developed, the regional plans will serve to support a Statewide coordination plan that will be used to create a list of prioritized projects and to quantify the perceived lack of transit funds. Recommendations will be forwarded to the SC Legislature for funding and projects.

SCDOT receives approximately \$4.5 Million of funding for the three major Federal programs affected by the coordination plans (5310, 5316 and 5317). The New Freedoms Act has the smallest amount of funding for the three programs. Funding will be distributed to large and small urban areas through the ten regional COGs.

Following the opening remarks, Frank Curti facilitated a discussion with the public and private agencies present at the meeting. The discussion was focused toward identifying and developing different types of strategies based on the identified service gaps. Frank outlined the three categories used to sort the strategies. The three categories include:

- **Administrative** – any arrangements among agencies to coordinate expenses, pool resources, change procedures or expand eligibility;
- **Information Sharing/Capacity Management** – combining schedules, vehicle sharing, offering access to training programs, etc.; and
- **Future Ops Planning** – service expansion, facilitating transfers between services, new service, etc.

The strategies, along with the associated service gap(s), that were discussed are summarized below:

- **Traveler's income above Medicaid threshold region-wide issue (often uninsured)** – increased travel training/itinerary development; utilize volunteer drivers
- **No options for general purpose trips** – increased marketing of available services; establish a voucher program and identify other fare subsidies
- **Rural areas-Johns Island, Awendaw, Edisto Island (low income areas)** – establish partnerships with local churches and other agencies to make connections with existing public agencies; BCDRTMA is in the process of investigating the expansion of rural services to the Awendaw, McClellanville and John's Island communities
- **Gap outside ADA service area, Mt. Pleasant, W. Ashley, James Island** – change eligibility standard(s) to increase service area

- **Aging vehicles** – coordinate purchases and services used by multiple agencies to receive best price (training, fuel, insurance, maintenance, drug testing, etc.); pool state-wide capital needs list to apply for available 5309(discretionary program) funds
- **Travel time too long (especially wait time after an appointment)** – real-time scheduling and coordination between agencies (cost allocation barrier would need to be solved)
- **Berkeley and Dorchester Counties experiencing high growth and long-term aging of the population** – expansion of CARTA service area into Goose Creek, Moncks Corner, Summerville and Lincolntonville; increased local support of CARTA services through additional funding programs
- **Itinerary planning-mobility management; Mothers; TANF; Seniors; Access to jobs** – development of marketing materials outlining existing services; use of 211 for transportation services; regional mobility manager to coordinate vehicle sharing and schedules
- **CARTA Paratransit service hours—M-F, 5am-1 am; Saturday, 7 am-1 am; Sunday 8am-11pm** – establish a voucher program and identify other fare subsidies
- **Vehicles over capacity 4 am-9 am** – regional mobility manager to coordinate vehicle sharing and schedules
- **Out of region trips** – coordinate vehicle sharing program that utilizes a “vehicle swap” instead of having idle vehicles
- **Employment for mentally disabled is part-time at odds hours— transportation is not always available – voucher program,**
- **Driver retention (difficult job)** – increased pay and other incentives (bonus for CDL, etc); use of volunteer drivers
- **Regional information sharing/awareness** – area human service agency meetings to discuss issues in the region (similar to meeting held in Dorchester County); comprehensive list of human service agency contacts (Trident Health Services has a list already or the United Way resource guide)

The date for the next meeting was not set. Prior to the next meeting, a draft coordination report will be developed and distributed to the participating agencies. The draft report is expected to be distributed and discussed in the late May or early June timeframe.

The meeting was adjourned at 3:30 pm.

Appendix C: 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.

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 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.⁶

Automatic Vehicle Location (AVL) - AVL is used to track transit vehicles using geographic positioning devices such as Geographic Positioning Systems (GPS). 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.⁷

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.

⁶ TCRP Report 84, page 14.

⁷ Ibid.

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.⁸

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 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.

⁸ *TCRP Report 84*, page 16.

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.

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