

Charlottesville-Albemarle
Regional Transit Authority Plan

Appendix I

Regional Cost Allocation Options

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Submitted by:

Nelson/Nygaard Consulting Associates
10 High Street, Suite 903
Boston, MA 02110

As a subcontractor to:

Vanasse Hangen Brustlin, Inc.

Submitted to:

Thomas Jefferson Planning District Commission
401 East Water Street
Charlottesville, VA 22902

Table of Contents

1	Executive Summary	1
2	Introduction	2
3	Overview of Methodologies and Practices.....	3
4	Cost Allocation Methods Used by Other Agencies	4
4.1	Williamsburg, Virginia	5
4.2	Fredericksburg, VA	8
4.3	Washington, DC: Virginia Railway Express.....	10
4.4	Washington, DC: Washington Metropolitan Area Transit Authority Bus Service	10
4.5	Chapel Hill, NC	11
4.6	Nashville, Tennessee.....	12
4.7	South Florida	12
4.8	San Luis Obispo, CA.....	12
4.9	Des Moines, IA	13
4.10	Butte County, CA	13
5	Impact for Different Methods of Charlottesville-Albemarle RTA.....	14
6	Implications for a Charlottesville-Albemarle RTA	18

List of Tables

Table No.	Description	Page
1	Cost Allocation Methodologies	5
2	Williamsburg Transit Authority Cost Allocation	6
3	WMATA Regional Bus Formula Weights	11
4	2001 Chapel Hill Transit Cost Allocation	12
5	Cost Allocation Impacts (Service Option 4A)	16

List of Figures

Figure No.	Description	Page
1	Williamsburg Transit Authority: Identification of Overlapping Routes	7

1 Executive Summary

Currently, Charlottesville and Albemarle County split the local share of operating costs based on which jurisdiction is considered—through agreement—to be the primary beneficiary of the route. Individual routes are designated as either “City” or “County” routes, and Charlottesville then pays the local share of operating costs for the City routes, and Albemarle County pays the local share of operating costs for the County routes.¹ Until FY 2008, all of the local shares of capital costs are paid by the City, and the City retained ownership of all assets. Beginning in FY 2008, the County began to make limited capital contributions for county service, but the City continues to own all assets.

To date, this system has worked well. CTS’ original routes were all designed to serve the City, and are designated as City routes. More recently implemented routes were developed at the behest of either the City or County, and were designated as City or County routes on the basis of which jurisdiction desired the new services. However, in the future, as the system grows to become more regional, it is likely that the region will desire the development new routes that will provide regional benefits. As this occurs, it will become more difficult, if not impossible, to attribute all costs to one jurisdiction or the other, and not to share them between the two.

In other areas, a wide variety of cost allocation methods are used. The most common use population, passengers, service hours, service miles, and/or assign costs by route (as does CTS). All of the cost allocation methodologies that are used elsewhere represent different approaches to linking costs to benefits in manners that are mutually acceptable to all partners.

Most, but not all, are simple. The simple approaches probably link costs to benefits in a less precise manner than the more complicated approaches. However, they are generally preferred because the benefits of a simpler, transparent, and more straightforward approach are typically viewed as more important than increasing the degree of accuracy at the expense of administrative cost and complexity. Simpler methods are also more transparent and can be explained easily to the public. In the cases where complex methodologies are used, they were developed to address specific issues of individual partners.

¹ This process has begun to evolve. For 2008, the City and County agreed that the local operating shares for a new route (Route 2B) would be split 50/50 because the route provides service in both the City and County. To date this is the only CTS route that is not designated exclusively as either a City or County service.

2 Introduction

Currently, Charlottesville and Albemarle County split the local share of operating costs based on which jurisdiction is considered—through agreement—to be the primary beneficiary of the route. Individual routes are designated as either “City” or “County” routes, and Charlottesville then pays the local share of operating costs for the City routes, and Albemarle County pays the local share of operating costs for the County routes.² Until FY 2008, all of the local shares of capital costs are paid by the City, and the City retained ownership of all assets. Beginning in FY 2008, the County began to make limited capital contributions for county service, but the City continues to own all assets.

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This technical report presents an overview of operating cost allocation methods that are used by other Regional Transit Authorities. These other transit agencies have already addressed similar issues as the Charlottesville-Albemarle area, and the approaches that they have developed can provide insights that can be used to develop a cost allocation methodology for the Charlottesville-Albemarle area.

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3 Overview of Methodologies and Practices

Transit agencies vary widely in size, membership and governance. Many have dedicated funding sources such as local sales or gas taxes that fund all of the local costs of their services, and thus cost allocation between partners is not necessary. For those that do allocate costs between partners, many examples of cost-sharing formulas exist. A number of different measures are used, the most common being:

- Population
- Passengers
- Service Hours
- Service Miles
- Assignment of routes to specific entities (as with CTS).

Most use a combination of measures, and most are relatively simple. Those that use multiple measures typically weight the different measures in ways that are intended to be equitable and efficient. It is also common for transit systems to revise cost allocation formulas to reflect service or other changes and to improve equity. For example, both Virginia Railway Express and the Des Moines Regional Transit Authority are considering changes to their cost-sharing formulas. In a similar manner as Charlottesville, the George Washington Region is also examining cost allocation changes in conjunction with the development of a new transportation authority.

4 Cost Allocation Methods Used by Other Agencies

This chapter describes the cost allocation formulas used by 10 different agencies in nine different areas. These agencies have addressed similar cost allocation issues as the Charlottesville-Albemarle area, and have developed a variety of approaches. These agencies include:

- Williamsburg Transit Authority (WTA), in Williamsburg, Virginia).
- Fredericksburg Regional Transit (FRED), in Fredericksburg, Virginia.
- Virginia Railway Express (VRE), in Washington, D.C.
- Washington Metropolitan Area Transit Authority (WMATA), in Washington, D.C.
- Chapel Hill Transit, in Chapel Hill, North Carolina.
- Nashville RTA in Nashville, Tennessee.
- South Florida Regional Transportation Authority (SFRTA), in Miami, Florida.
- San Luis Obispo Regional Transit Authority (SLORTA), in San Luis Obispo, California.
- Des Moines Regional Transit Authority (DMRTA), in Des Moines, Iowa.
- County-wide Consolidated Transit Services Advisory Committee (CCTSA), in Butte County, California.

Of the 10 transit systems examined, four use a single measure to allocate costs (see

Table 1). In the same manner as Charlottesville, Fredericksburg allocates routes and associated costs to individual jurisdictions. Chapel Hill and Nashville allocate costs solely based on population. SFRTA splits costs equally among its three member counties.

The other six transit systems split costs based on multiple measures. Williamsburg uses service hours, service miles, and adjustment factors that are designed to address concerns of specific members. VRE currently allocates costs on the basis of population and passengers, but is proposing to its members to switch to a purely passenger-based allocation.

Table 1 : Cost Allocation Methodologies

	Route Assignment	Population	Population Density	Passengers	Service Hours	Service Miles	Passenger Miles	Adjustment Factors	Assessed Property	Equal Split
Charlottesville, VA	√									
Williamsburg, VA					√	√		√		
Fredericksburg, VA										
Existing	√									
Proposed					√					
Washington, DC (VRE)										
Existing		√		√						
Proposed				√						
Washington, DC (WMATA Bus)		√	√	√	√	√				
Chapel Hill, NC		√								
Nashville RTA		√								
South Florida										√
San Luis Obispo, CA	√	√					√			√
Des Moines, IA						√		√		
Butte County, CA		√		√	√					

4.1 Williamsburg, Virginia

The Williamsburg Transit Authority is a new authority that is now being formed and whose membership includes the City of Williamsburg, James City County, York County, the College of William and Mary (CWM), and Colonial Williamsburg (which is a private foundation). The new RTA provides the services that were formerly provided by Williamsburg Area Transit, CWM, and Colonial Williamsburg.

Operating Cost Allocation

WTA allocates both operating and capital costs among its partners on the basis of vehicle service hours and vehicle service miles, plus a number of adjustments to respond to specific concerns of individual partners. These include an adjustment for the City of Williamsburg to address concerns that the strict application of miles and hours would penalize the City for hosting the transfer point, and “payments in lieu of fares” to reflect that some services charge a fare and some don’t.

With the combination of service hours, service miles, and adjustment factors, the WTA allocation methodology is the most complicated of all of those examined. To start, the process first allocates vehicle service hours and miles to each party. All service hours and miles for CWM and CWF services are allocated to those entities. WTA also

operates three routes for the National Park Service (NPS) and the hours and miles for those services are allocated to the NPS. The remaining hours for “general public” service are allocated by the amount of hours and miles provided in each jurisdiction.

Once vehicle service hours and miles have been allocated to each party, the relative shares are then used to allocate total costs to each party. This is done by allocating each budget line item by vehicle hours (for example, driver wages), vehicle miles (for example, fuel and vehicle maintenance), or as a fixed cost (largely administration). Then, as shown in Table 2, the costs that are allocated based on vehicle hours are split between the parties based on relative shares of vehicle hours, and costs that are allocated based on vehicle miles are split based on the relative share of vehicle miles. Fixed costs are then added as a factor.

Table 2: Williamsburg Transit Authority Cost Allocation

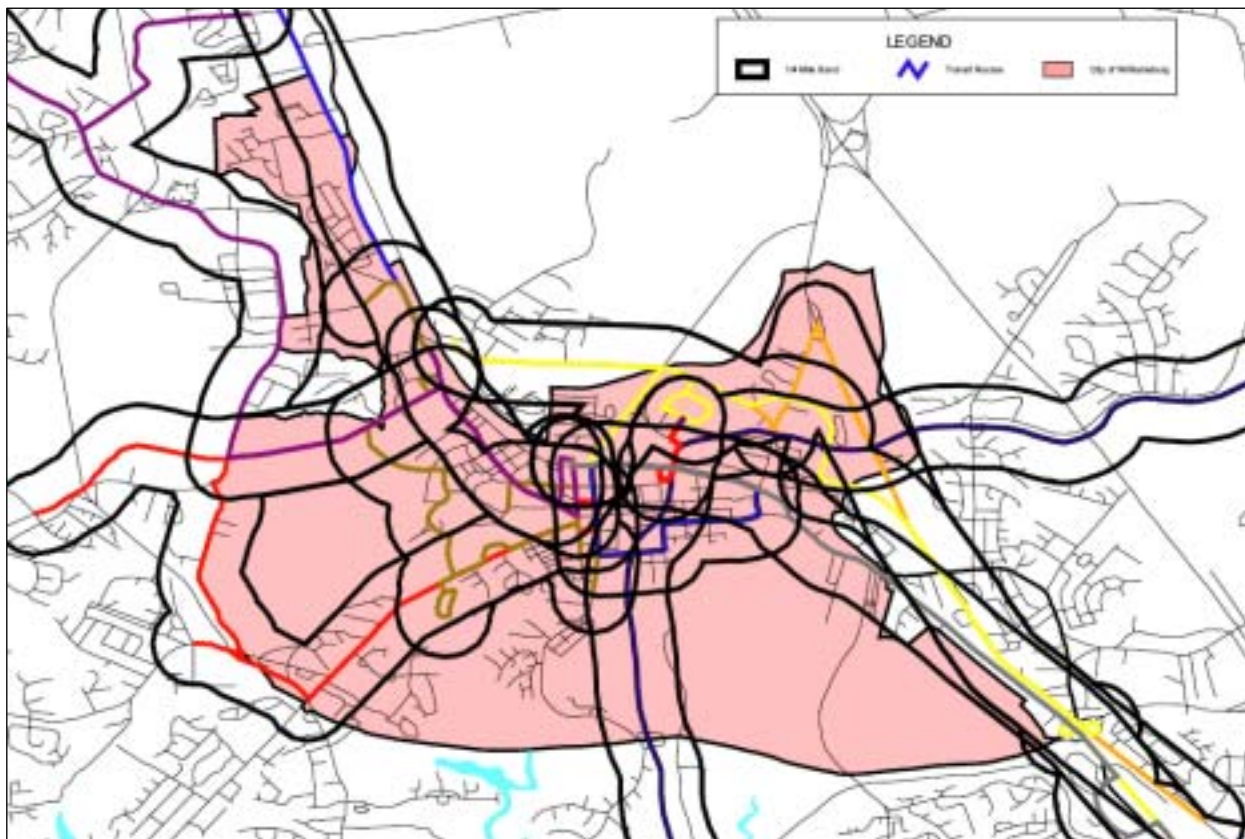
Expenses (All Services - Constructed Budget)				
Cost Component	Total Program	Fixed Costs	Hourly-Related Costs	Mileage-Related Costs
VEHICLE OPERATIONS EXPENSES				
Operating Salaries + Fringe	\$ 2,114,625		\$ 2,114,625	
Fuel	\$ 217,561			\$ 217,561
Insurance	\$ 188,500	\$ 188,500		
Clothing	\$ 15,600	\$ 15,600		
Agency Services Charges ¹	\$ 15,825	\$ 15,825		
Subtotal Operations	\$ 2,552,111	\$ 219,925	\$ 2,114,625	\$ 217,561
MAINTENANCE EXPENSES				
Parts	\$ 70,000			\$ 70,000
Contracted Repairs	\$ 735,928			\$ 735,928
Regional Garage Lease	\$ 84,000			\$ 84,000
Transportation Center	\$ 75,000			\$ 75,000
Clearing Contracts	\$ 25,000			\$ 25,000
Bus Shelters Maintenance	\$ 3,500			\$ 3,500
Radio Maintenance	\$ 1,900			\$ 1,900
Utilities	\$ 9,023			\$ 9,023
Subtotal Maintenance	\$ 1,003,951	\$ -	\$ -	\$ 1,003,951
ADMINISTRATIVE EXPENSES				
Professional Services	\$ 300	\$ 300		
Recognition	\$ 1,900	\$ 1,900		
Administrative Salaries + Fringe	\$ 265,040	\$ 265,040		
Supplies and Materials	\$ 14,413	\$ 14,413		
Travel	\$ 4,000	\$ 4,000		
Telephone	\$ 9,500	\$ 9,500		
Postage	\$ 500	\$ 500		
Utilities	\$ 1,920	\$ 1,920		
Building Maintenance	\$ 900	\$ 900		
Enhancements	\$ 3,000	\$ 3,000		
Training/Conferences	\$ 5,000	\$ 5,000		
Data Processing	\$ 1,850	\$ 1,850		
Communication Equipment	\$ 2,300	\$ 2,300		
Dues	\$ 2,000	\$ 2,000		
James City County Services				
Accounting	\$ 12,000	\$ 12,000		
Treasurer	\$ 22,500	\$ 22,500		
Payroll	\$ 2,500	\$ 2,500		
Audit	\$ 15,000	\$ 15,000		
Services	\$ 5,988	\$ 5,988		
Legal	\$ 10,000	\$ 10,000		
Marketing	\$ 60,000	\$ 60,000		
Subtotal Administration	\$ 440,211	\$ 440,211	\$ -	\$ -
TOTAL EXPENSES	\$ 3,996,273	\$ 660,136	\$ 2,114,625	\$ 1,221,512

¹College of William & Mary Expense

Source: Williamsburg Area Public Transportation Study, June 2005, prepared by KFH Group for Williamsburg Area Transport,

Once these totals are calculated, an adjustment factor is applied to shift some City of Williamsburg costs to the other partners. This factor is intended to reflect that the City receives more miles of transit service than it would need if it were not the hub for all services. The factor is calculated as half the percentage of the City's land area that is served by two or more routes and is based on the premise that the City should pay an allocation for service from one route in these areas, but that the costs for additional routes should be shared by all the partners. The adjustment is based on a GIS-based analysis (see Figure 1) that determined that 37.68% of the City is served by two routes.³ The City's share of costs is then reduced by half of that amount (18.84%), and the dollar amount of the reduction is allocated proportionally to the other partners.

Figure 1: Williamsburg Transit Authority: Identification of Overlapping Routes



Operating Revenue Allocation

Once the respective shares of total costs have been determined, available funding (federal, state, and other revenue) is then deducted from total costs, also on a proportional basis. However, since the CWM and Colonial Williamsburg services are

³ In the Charlottesville area, most of this type of overlap occurs with "City" routes. Overlap with "County" routes occurs to a much lower extent.

fare-free, a payment in lieu of fares system was developed to ensure that fare revenue was allocated in an equitable manner. To do this, the parties who are responsible for fare-free services contribute a “payment in-lieu of fares” that is based on the ridership on the free services times the average fare for the services with fares. This “payment” is then included in the fare allocation formulas (and in effect is a largely paper transaction in which some parties “pay” for the fare revenue that was not collected and then get a credit that approximates what would have been paid).

Actual local shares are then calculated based on each party’s share of total costs minus each party’s share of revenue.

Capital Cost Allocation

The allocation of the local share of capital costs is much simpler than the allocation of operating costs. The RTA members agreed that the bus fleet should be considered jointly, with vehicle and facility costs funded by the system on an ongoing basis. For example, the local share for vehicles needed for a new service entirely within the City would be shared by all partners. A second agreement was that the RTA members preferred to make annual contributions to a capital replacement fund, rather than irregular amounts based on the time of vehicle purchases (low one year, high the next).

Based on the above, annual capital replacement costs are based on:

- The development of a 20-year capital plan.
- Estimates of annual costs that are based on total costs for the 20-year capital plan divided by 20.

Once annualized capital costs have been determined, the total costs are then split between partners based on the operating cost shares.

4.2 Fredericksburg, VA

Fredericksburg Regional Transit (FRED) currently uses essentially the same cost allocation method as CTS. For operating costs, routes are allocated to either the City of Fredericksburg or one of the four counties, and the responsible jurisdiction is responsible for local share of operating costs (total costs minus subsidies, any dedicated revenues, and fares). For capital costs, the local share is covered entirely by the City of Fredericksburg, which maintains ownership of all assets.

Also similar to the Charlottesville-Albemarle area, the George Washington Region is considering the development of an RTA, and the development of a new method of cost allocation. There, the proposed method is based largely on the revenue vehicle hours of service in each jurisdiction:

Cost Allocation

- Routes would be designated as either “regular” service, “demonstration” service, or “contract” service. Regular service would be established service for which there is an on-going commitment. Demonstration services would be new services that receive special start-up funding, which would include CMAQ, State Demonstration, and/or local funding. Contract services would be those that are operated on a contract basis and fully funded by the contracting party (for example University of Mary Washington service).
- Costs for the different types of services would be allocated as follows:
 - Regular service costs would be allocated to jurisdictions based on the revenue vehicle hours (RVH) operated in each jurisdiction.
 - Demonstration service costs would be allocated to the initiating jurisdiction, or if initiated by multiple jurisdictions, between the jurisdictions based on RVH.
 - Contract service costs would be allocated to the party contracting for the service.
 - Local shares of capital costs for system-wide improvements would be shared based on RVH on the same basis as operating costs. Local shares of capital costs for location-specific improvements or services would be borne by the jurisdiction in which the improvements would be located.
- Total cost responsibilities would then be determined as the sum of the operating and capital cost allocations.

Revenue Allocation

- Fare revenue would be tabulated and allocated by jurisdiction based on passenger boardings and average fares.
- Dedicated funding sources would continue to be allocated to specific services or areas as they currently are:
 - FTA CMAQ and State Demonstration funding would be allocated to the specific demonstration services based on DRPT programming decisions.
 - FTA Section 5311 Rural Transit funding would be allocated to specific rural services in the region’s rural counties (Caroline and King George) based on DRPT programming decisions.
 - Funds paid for contract services, such as UMW service, would continue to be applied to the contract service.
 - Local contributions from public and private organizations and other miscellaneous sources would continue to be allocated to the jurisdiction in which the funds were generated.
- Non-dedicated Federal and State funding would be allocated among all eligible regular services based on Revenue Vehicle-Hours:

- ❑ FTA Section 5307 Urban Area and State Urbanized Area Operating Assistance funds would be shared among the urban localities (Fredericksburg, Stafford County, and Spotsylvania County) based on RVH.
- ❑ FTA Section 5311 Non-urbanized funds and State Rural Area Operating Assistance would continue to be allocated among the non-urbanized counties (Caroline and King George) based on RVH.
- ❑ Total allocated revenues would then be the sum of the fare revenues, dedicated funding, and non-dedicated funding allocated to each jurisdiction.

Local Net Costs

- The local net cost of service would then be determined as the difference between allocated expenses and allocated revenues.

For capital costs, local costs for projects that would be of primary benefit to a single jurisdiction would be borne by that jurisdiction. Local shares of capital costs for equipment and projects of regional significance would be split based on revenue vehicle hours.

4.3 Washington, DC: Virginia Railway Express

Virginia Railway Express (VRE) is a transportation partnership of the Northern Virginia Transportation Commission (NVTC) and the Potomac and Rappahannock Transportation Commission (PRTC), which in turn are comprised of 11 cities and counties. Currently, VRE allocates its net costs (total costs minus subsidies and fare revenue) to individual jurisdictions using a formula that is based 90% on the ridership from each jurisdiction and 10% on population, and that deducts revenue generated in each jurisdiction.

However, even though only 10% of the formula is based on population, Fairfax County is so much larger than the other jurisdictions that the population component is seen as producing too high of a subsidy cost for Fairfax County (45% of VRE's local subsidy compared to 20% of VRE's riders). As a result, VRE is now considering a new formula that would be based 100% on ridership, and that would continue to deduct the revenue generated in each jurisdiction.

4.4 Washington, DC: Washington Metropolitan Area Transit Authority Bus Service

The Washington Metropolitan Area Transit Authority (WMATA) uses different cost allocation formulas for different types of service. For bus service, WMATA uses different methods for different types of service ("regional service," "non-regional service," and "reimbursable service):

Regional Services

Local costs are calculated as the total cost to operate regional routes, minus subsidies and fare revenue. The net local costs for regional services are split between jurisdictions using the “Regional Bus Formula.” This formula allocates costs based on five factors: population, population density, revenue hours, revenue miles, and ridership, using the weightings shown in Table 3. Average weekday ridership is determined by conducting annual surveys.

Table 3: WMATA Regional Bus Formula Weights

Measure	Weight
Population/population density	25%
Revenue hours	25%
Revenue miles	35%
Average weekday ridership by jurisdiction of residence	15%

Non-Regional Routes

The local subsidy cost for non-regional routes is charged as the marginal cost of operating each route minus the route’s revenue.

Reimbursable Services (which are demonstration or contract services)

The local subsidy cost for non-regional routes is charged as the marginal cost of operating each route minus the route’s revenue, or by a separate contract.

4.5 Chapel Hill, NC

Chapel Hill Transit has three primary partners: the Town of Chapel Hill, the Town of Carrboro, and the University of North Carolina (UNC). The agency provides local transit services throughout its service area, plus university-oriented services at and around the UNC campus. All services are open to any riders (including the UNC services), and all local services are free.

UNC pays 100% of the costs for the university routes, and all three parties share the local costs for other services based on 2000 population. UNC’s population is considered to be its number of students and employees (see Table 4).

Table 4: 2001 Chapel Hill Transit Cost Allocation

	2000 Population	Percent
Chapel Hill	48,715	46.29%
Carrboro	16,782	15.95%
University of North Carolina	39,732	37.76%
Total	105,229	

Local costs are defined as those that are not funded through other sources. Federal, state, and other sources, and farebox revenue (from Triangle Transit Authority routes and regional routes) are first deducted from total operating expenses, and then the population-based allocation is applied to the remaining expenses.

One exception to this method is that it does not include costs for new services. For these, the requesting entity must pay all local costs for the first year. After that time, costs are folded into the overall budget.

4.6 Nashville, Tennessee

The Nashville RTA is comprised of the nine counties in the Metropolitan Nashville area (which include the cities in the counties). For fixed-route services, local assessments are based on population and are set at a per-capita rate. The RTA has the power to set this per-capita charge at between 10¢ and 50¢. Historically, it has been set at 10¢, but may increase with the expansion of commuter rail service.

4.7 South Florida

The South Florida Regional Transportation Authority's commuter rail service (formerly Tri-Rail) is a joint venture of three counties (Broward, Miami-Dade, and Palm Beach). There, the three counties contribute an equal amount, with the funds from each county dedicated to services and/or facilities within that county.

4.8 San Luis Obispo, CA

The San Luis Obispo Regional Transit Authority (SLORTA) is comprised of eight cities and counties. SLORTA does not have a systemwide cost allocation methodology, but instead allocates costs on a case-by-case basis as new routes are developed. In general, the board members who represent the jurisdictions that will be served by new services determine the specific method that will be used. Cost allocation formulas can also be amended during the annual budget process.

This ad-hoc process has resulted in the development and use of three different methods:

- A combination of the populations of the areas served and the passenger-miles of travel by the residents of each area (with passenger miles determined through passenger surveys). This method is used for one route.
- An equal division of costs between the jurisdictions that are served. (For routes that are within a single jurisdiction, the single jurisdiction pays all local costs.) This method is used for five routes.
- A proportional distribution of costs between the jurisdictions that are served based on relative population. This method is used for two routes.

4.9 Des Moines, IA

The Des Moines Regional Transit Authority (DMRTA) comprises 19 cities and one county, and uses a cost allocation formula that is based 95% on vehicle service miles and 5% on assessed values. The heavy reliance on vehicle miles and low reliance on assessed values is intended to allow smaller jurisdiction to join the RTA at a relatively low base cost that would increase only to the extent that service is added.

However, DMRTA is now considering changes, as some members consider the method to be overly complex and believe that the vehicle miles allocation results in a disincentive to expanding service. Also, similar to the case in Williamsburg, there is a desire to give special consideration to downtown Des Moines, as well as to other regional attractors and express bus nodes. Another objective is to better direct investment to where it is most needed.

4.10 Butte County, CA

Butte County's County-wide Consolidated Transit Services Advisory Committee consists of the Butte County Association of Governments, Butte County, and three cities. The agency uses two different formulas; one for its fixed-route and another for paratransit services:

- For its fixed route service, where vehicle hours can be easily determined, the Committee splits costs 50% based on population and 50% based on vehicle service hours.

For Dial-a-ride service, where vehicle hours cannot be easily determined, the Committee splits costs 50% based on population and 50% based on ridership.

5 Impact for Different Methods of Charlottesville-Albemarle RTA

In the Charlottesville-Albemarle area, a number of decisions still need to be made, and additional work conducted, before cost share estimates for local partners can be fully developed. For example, RTA partners will need to determine the services that will be provided, and these decisions will impact both overall costs and the amount of service provided in specific areas. Also, ridership projections will need to be developed in order to estimate the amount of fare revenue that would be generated by each route and in specific areas.

Until those decisions have been made and associated work conducted, it is not possible to precisely determine how the use of the allocation methods described above would impact costs for Charlottesville-Albemarle RTA partners. However, to provide a generalized indication of the cost difference impacts of various approaches, this section presents costs share estimates for the City of Charlottesville and Albemarle County for an RTA comprised of the City and the County assuming:

- **The continued use of a similar methodology as at present** that allocates costs existing routes entirely to the jurisdiction that would receive the most benefit. For new routes:
 - Where one jurisdiction would clearly receive more benefit than the other, all costs would be allocated to that jurisdiction.
 - Where both jurisdictions would receive significant benefits, the costs would be split 50/50.
- **A cost allocation based on vehicle service hours and/or miles.** These estimates are intended to illustrate the impacts of a cost allocation process that, in many respects, would be similar to the WTA methodology without the numerous adjustments and the proposed George Washington Region RTA vehicle service hour-based methodology.

Because, as described above, not all of the information that would be needed to fully develop these estimates is available, two simplifying assumptions were used:

- The services that would be provided by the RTA would be those described for service Option 4A.
- Vehicle service miles, which could be easily determined by jurisdiction, were used as a surrogate for vehicle service hours, which would be significantly more difficult to develop. In most cases, the split of revenue hours and revenue miles by jurisdiction should be similar. The differences that would exist would be related to higher operating speeds in Albemarle County than in Charlottesville due to less dense development and less congestion. This means that more miles of service could be provided per hour of service in Albemarle County than in Charlottesville. As a result, the use of service miles instead of hours slightly overstates County costs.

With the ultimate use of service hours instead of miles, City costs would be somewhat higher than presented, and County costs somewhat lower than presented.

With the continued use of a similar methodology as at present, costs would be assigned to the City and/or County on a route-by-route basis, with the assumed splits shown in Table 4. As shown, with this methodology, 52% of costs would be allocated to the City, and 48% of costs would be allocated to the County.

With the use of vehicle miles, the City would pay a slightly higher share, as 54% of vehicle miles would be in the City and 46% would be in the County (also see Table 4). The use of a vehicle hour and vehicle mile methodology as in Williamsburg would increase the City share by an undetermined, but likely small amount. The use of a purely vehicle hour based methodology would further increase the City share, again by an undetermined, but likely small amount.

As shown, the differences in percentage terms are not particularly large. In dollar terms, with a continuation of the existing methodology, the City's share of operating costs would be \$8.9 million and the County's share would be \$8.2 million.⁴ With a cost split based on vehicle miles, the City's share would be \$9.2 million, or \$300,000 higher, and the County's share would be \$7.9 million, or \$300,000 lower. With cost split using a combination of vehicle miles and hours, or purely vehicle hours, the City's share would be somewhat lower and the County's share somewhat higher.

4 Note that these costs represent the respective shares of total operating costs, and not net operating costs. A large proportion of these costs would be funded with federal, state, and other operating subsidies, and the actual costs to the City and County would be much lower (for example, for FY 2008, the City will fund 45% of the total operating budget). Thus, the actual local costs associated with the respective shares, and the cost differences between the cost allocation methods, would be significantly lower.

Table 5: Cost Allocation Impacts (Service Option 4A)

	Funding Responsibility	Split Costs by Route				Split Costs by Service Miles			
		Percent of Costs		Share of Costs		Percent of Miles		Share of Costs	
		City	County	City	County	City	County	City	County
Day Service									
Free Trolley	City	100%	0%	\$737,866	\$0	86%	14%	\$634,306	\$103,560
Route 1A	City	100%	0%	\$323,600	\$0	100%	0%	\$323,600	\$0
Route 1B	City	100%	0%	\$431,000	\$0	49%	51%	\$210,915	\$220,085
Route 2A	City	100%	0%	\$323,600	\$0	100%	0%	\$323,600	\$0
Route 2B	Split	50%	50%	\$215,500	\$215,500	82%	18%	\$352,159	\$78,842
Route 3	City	100%	0%	\$323,600	\$0	100%	0%	\$323,600	\$0
Route 4	City	100%	0%	\$756,001	\$0	100%	0%	\$756,001	\$0
Route 5	County		100%	\$0	\$1,051,612	10%	90%	\$104,611	\$947,001
Route 6	City	100%	0%	\$428,961	\$0	100%	0%	\$428,961	\$0
Route 8	City	100%	0%	\$735,362	\$0	100%	0%	\$735,362	\$0
Route 9	City	100%	0%	\$735,362	\$0	100%	0%	\$735,362	\$0
Route 10A	County	0%	100%	\$0	\$776,641	35%	65%	\$271,824	\$504,817
Route 10B	County	0%	100%	\$0	\$776,641	21%	79%	\$159,897	\$616,744
Hollymead Route	County	0%	100%	\$0	\$257,995	100%	0%	\$257,995	\$0
Rio Road East	Split	50%	50%	\$873,721	\$873,721	0%	100%	\$0	\$1,747,442
Biscuit Run Route	County	0%	100%	\$0	\$1,073,260	41%	59%	\$438,065	\$635,195
Route 29 Circulator	County	0%	100%	\$0	\$379,749	30%	70%	\$112,518	\$267,231
Crosstown Route	City	100%	0%	\$776,641	\$0	63%	37%	\$486,142	\$290,499
Pantops-Hollymead	County	0%	100%	\$0	\$743,026	14%	86%	\$102,166	\$640,860
Priority Transit A	Split	50%	50%	\$804,945	\$804,945	47%	53%	\$753,124	\$856,765
Priority Transit B	Split	50%	50%	\$522,870	\$522,870	73%	27%	\$762,683	\$283,058
Night Service									
FREE Trolley	City	100%	0%	\$206,396	\$0	86%	14%	\$177,428	\$28,968
Route 5	County	0%	100%	\$0	\$232,196	10%	90%	\$23,098	\$209,098
Route 21	City	100%	0%	\$103,198	\$0	100%	0%	\$103,198	\$0
Route 22	City	100%	0%	\$103,198	\$0	100%	0%	\$103,198	\$0
Route 23	City	100%	0%	\$103,198	\$0	65%	35%	\$67,423	\$35,775
Route 24	County	0%	100%	\$0	\$103,198	55%	45%	\$56,290	\$46,908

Table 5: Cost Allocation Impacts (Service Option 4A) (Continued)

	Funding Responsibility	Split Costs by Route				Split Costs by Service Miles			
		Percent of Costs		Share of Costs		Percent of Miles		Share of Costs	
		City	County	City	County	City	County	City	County
Night Service (Cont'd.)									
Priority Transit A	Split	50%	50%	\$165,117	\$165,117	47%	53%	\$154,487	\$175,747
Priority Transit B	Split	50%	50%	\$82,558	\$82,558	73%	27%	\$120,424	\$44,693
Sunday Service									
FREE Trolley	City	100%	0%	\$32,943	\$0	86%	14%	\$28,319	\$4,624
Route 7	City	100%	0%	\$65,885	\$0	63%	37%	\$41,483	\$24,402
Express Bus									
Rivanna Express	County	0%	100%	\$0	\$68,575	0%	100%	\$0	\$68,575
Piney Mountain	County	0%	100%	\$0	\$68,575	0%	100%	\$0	\$68,575
Other Service									
Other	City	100%	0%	\$53,784	\$0	100%	0%	\$53,784	\$0
Total		52%	48%	\$8,905,308	\$8,196,177	54%	46%	\$9,202,024	\$7,899,462

6 Implications for a Charlottesville-Albemarle RTA

All of the cost allocation methodologies described above represent different approaches that link costs to benefits in ways that are mutually acceptable to all partners. Most, but not all, are simple. These simple approaches link costs to benefits in a less precise manner than the more complicated approaches. However, they are generally preferred because the benefits of a simpler, more straightforward approach are typically viewed as more important than increasing the degree of accuracy at the expense of complexity and increased costs for data collection and administration. In the cases where complex methodologies are used, they were developed to address specific issues of individual partners.

For the Charlottesville-Albemarle area, the examples presented above provide a starting point for the development of a cost allocation methodology for a new RTA. Next, the City and the County will need to identify the specific issues that they believe should be included in a cost allocation methodology. Ideally, it will be possible to address any issues within a simple process. However, as described in the examples above, it should be possible to address a wide number of issues within a defined cost allocation process.

As a starting point for discussion, for an RTA that would consist of the City and the County, we would recommend a cost and revenue allocation plan that is similar to that being proposed for the George Washington Region (and is described in the Fredericksburg section). Such a process would entail the following:

Cost Allocation

- Allocate total operating and capital costs based on a single measure, which would be revenue vehicle hours of service (RVH) in each jurisdiction, with only limited exceptions. Exceptions would include:
 - Routes that operate in a jurisdiction but do not serve that jurisdiction (for example, through an area where there are no stops).
 - Routes that clearly serve residents of only one jurisdiction (for example, express service).

Revenue Allocation

- Allocate non-dedicated operating subsidies (for example, federal and state operating assistance) between the City and County on the basis of total RVH in each jurisdiction. (If an Authority is created and the Authority has taxing powers, those revenues would also be considered to be non-dedicated revenues.) In effect, non-dedicated revenue sources would be taken “off-the-top.”
- Allocate dedicated subsidies (for example CMAQ funds for a specific route and UVa’s contribution to free trolley service) between the City and County based on RVH for the services for which the funds are provided.

- Allocate fare revenue and UVa's contribution for free fares for students and employees based on the percent of riders from Charlottesville and the percent of riders from Albemarle County (which could be determined by periodic surveys or based on AM peak boardings). If different fares are to be charged on different types of routes, fare revenue could be allocated using a combination of rider residences and average fares on a route-by-route basis).
- Calculate net local costs as each jurisdiction's share of total costs minus its share of subsidy revenue and fare revenue. (Note that an Authority with taxing powers could potentially generate sufficient revenues to cover all operating and capital costs, and in this case, net local costs could be zero.)

The above approach would represent a relatively simple and straight-forward approach that would address the most important local issues. Additional adjustments can be made, and in most cases there would be no "right" or "wrong" technical reasons to include or not include them. Instead, these types of adjustments would represent policy choices related to a greater emphasis on simplicity and transparency or the most precise accounting possible of all costs and revenues. As described above, most other systems opt for simple and transparent methods that all parties believe represent a fair, if not completely precise, allocation of costs and revenues. However, others, and the Williamsburg Transit Authority is the best example of the systems examined, opt for more complex methods that may provide more precise results.

Finally, the method that is ultimately chosen should provide for flexibility for future changes. While the current emphasis is on the development of a transit authority that comprises the City and County, there may be a desire in the future to include UVa and/or JAUNT. In that event, the methodology proposed above could include both with only minor adjustments. In the case of UVa, the UVa Grounds could become its service area, with costs and miles allocated accordingly.⁵ JAUNT costs within Charlottesville and Albemarle County could be allocated similarly, with supplemental agreements with other counties to cover costs in outlying areas.

⁵ At the present time, for cost allocation purposes, the UVa Grounds are considered to be part of the City.