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spotlight

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No, Fix the Roads First

How N.C. has taken transportation out of transportation policy

KEY FACTS: **• The Minneapolis I-35 bridge disaster and the poor condition of North Carolina's bridges should be a wake-up call for policymakers to set sensible priorities for transportation policy.**

• N.C. has 17,782 bridges, of which 5,082 (29 percent) are deemed deficient by the federal government. N.C. ranks 32nd in the nation in percentage of deficient bridges — 10th worst in total number of deficient bridges.

• Unfortunately, as expressly stated in official government documents, state transportation policy is as much about attractive streetscapes and other non-transportation issues as it is about transportation.

• Current transportation policy shifts a greater share of spending to transit, which makes no sense if improving mobility is the goal, as it should be.

• Excessive spending on transit is diverting much-needed resources away from critical transportation needs such as bridges.

• On the local level, the Charlotte metropolitan planning organization is planning to spend 57.5 percent of its budget on transit — which is used by only 2.6 percent of commuters (0.54 percent of all urban motorized travel). About one of out 10 spots (13 percent) on Charlotte buses is filled; 87 percent of the spots on Charlotte buses are empty.

• Policymakers should rethink their priorities and question spending excessively on transit or pushing transportation polices more concerned with pretty public spaces than safe roads and bridges.

The recent I-35 bridge disaster in Minneapolis should serve as a wake-up call to the public and to policymakers. While knee-jerk policy solutions should be avoided, the tragedy highlights the need for transportation policy that sets proper priorities, starting with safety.

Unfortunately, North Carolina's transportation policy has been hijacked by a philosophy that believes environmental and "smart growth" priorities are as important or even more important to transportation policy as transporta-

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tion priorities. This philosophy is well documented in various state transportation reports, including the 2004 "Statewide Transportation Plan." The philosophy seeks to allocate a greater share of transportation funds to public transit.

There is nothing wrong with investing in public transit to the extent that funding is commensurate with demand. The investment though is grossly disproportional to demand. Any wasteful spending, whether it is on highways or public transit, and no matter how small or large, needs to be eliminated.

Figure 1. Overview of North Carolina Highway Bridge Conditions

Total number of highway bridges	17,783
Total number of deficient bridges	5,082
Percent of bridges that are deficient	29 percent
National rank (based on percent deficient)	32nd
National rank (based on number of deficient bridges)	41st (10th worst)
Southeast rank*	9th (out of 11 states)
Rank among neighboring states†	Last

Source: Bureau of Transportation Statistics[1]

*Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.

† Georgia, South Carolina, Tennessee, and Virginia.

This *Spotlight* will explain the state's transportation philosophy. It will explain why increased investment in public transit would fail to serve any transportation need. The problems with the state's bridges would not disappear if all the wasted transit money were instead going to bridges. However, it certainly would make a difference.

Transportation in Context: North Carolina's Bridges

According to the North Carolina Division of Transportation (NCDOT), public transit's share of the state transportation budget from 1995-2000 was 4.4 percent. NCDOT recommended in the 2004 Statewide Transportation Plan to more than double this number to 9.1 percent.[2] This increase should be considered in the context of other transportation needs, such as bridges. The poor condition of North Carolina's highway bridges is just one of the critical infrastructure needs that receive less attention when transportation money is diverted to public transit.

North Carolina is ranked 32nd among the 50 states in terms of the percentage of bridges classified as deficient by the Federal Highway Administration. North Carolina ranks 10th worst in the nation with 5,082 deficient bridges.[3] The Federal Highway Administration classifies bridges as deficient for two reasons. They are considered either structurally deficient or functionally obsolete. *Structurally deficient* generally refers to the deterioration of a bridge, and *functionally obsolete* generally refers to a bridge's design not meeting current usage.[4] Figure 1 provides an overview of the poor condition of North Carolina's bridges, and the Appendix provides the total number of major bridges in N.C. that are deficient, by county.

The Common-Sense Purpose of Transportation Policy

Transportation policy should be concerned with transportation. This statement seems obvious as to be silly to state explicitly; nevertheless, it does not reflect the state's current policies. More specifically, the core purpose of transportation policy should be to address the mobility needs of North Carolinians. In determining those needs, the government generally should look at the voluntary transportation choices made by individuals and then develop policies around those choices.

Most people choose to drive to get from point A to point B. Developing safe roads, including highway bridges, is required to support that choice. Also, developing cost-effective approaches is necessary to meet the demand for roads. Environmental and land use issues, while not directly related to improving mobility, still should be considered, but they should be secondary concerns.

Figure 2: The New Transportation Philosophy in Action

"We always saw transit as a means, not an end," says planning director Debra Campbell. "The real impetus for transit was how it could help us grow in a way that was smart. This really isn't even about building a transit system. It's about place making. It's about building a community." – Charlotte-Mecklenburg Planning Director Debra Campbell in the June 2007 edition of *Governing*.[5]

The Stated Purpose of Transportation Policy in North Carolina

Unfortunately, transportation policy has become as much about the environment, "smart growth" (which is simply a euphemism for centrally planned, high-density development) aesthetics, and even housing, as it is about mobility. It also has become anti-automobile despite the public's desire to own personal vehicles such as cars and trucks. According to the Federal Highway Administration, "the 2001 National Household Travel Survey (NHTS) found that there is nearly one vehicle (0.97) for every person 16 years and older in the U.S."[6] It does not take much searching to see how North Carolina has lost its focus on transportation.

The Transit 2001 Commission's Vision

In 1995, Governor Jim Hunt appointed a commission called the Transit 2001 Commission.[7] The Commission's report, released in 1997 and still featured on NCDOT's web site, provides a picture of the distorted philosophy that governs the state's transportation policy and is manifested in the push for more public transit:

> The Transit 2001 vision extends far beyond public transportation. It embraces notions of how we want to live in the 21st Century and what we want our neighborhoods and communities to become.[8]

Creating ideal communities sounds great — after all, who wants our communities to become horrible places to live? The problem with this statement is that it expects transportation policy to achieve goals that are unrelated to transportation. It also presumes that everyone agrees with what our communities should look like in the 21st Century. Instead of allowing individuals to choose how and where they want to live, transportation policy is seen as a means of changing the behavior and living arrangements of the public, as determined by city planners.

The Transit 2001 report further discusses the vision as being one in which North Carolinians, among other things:

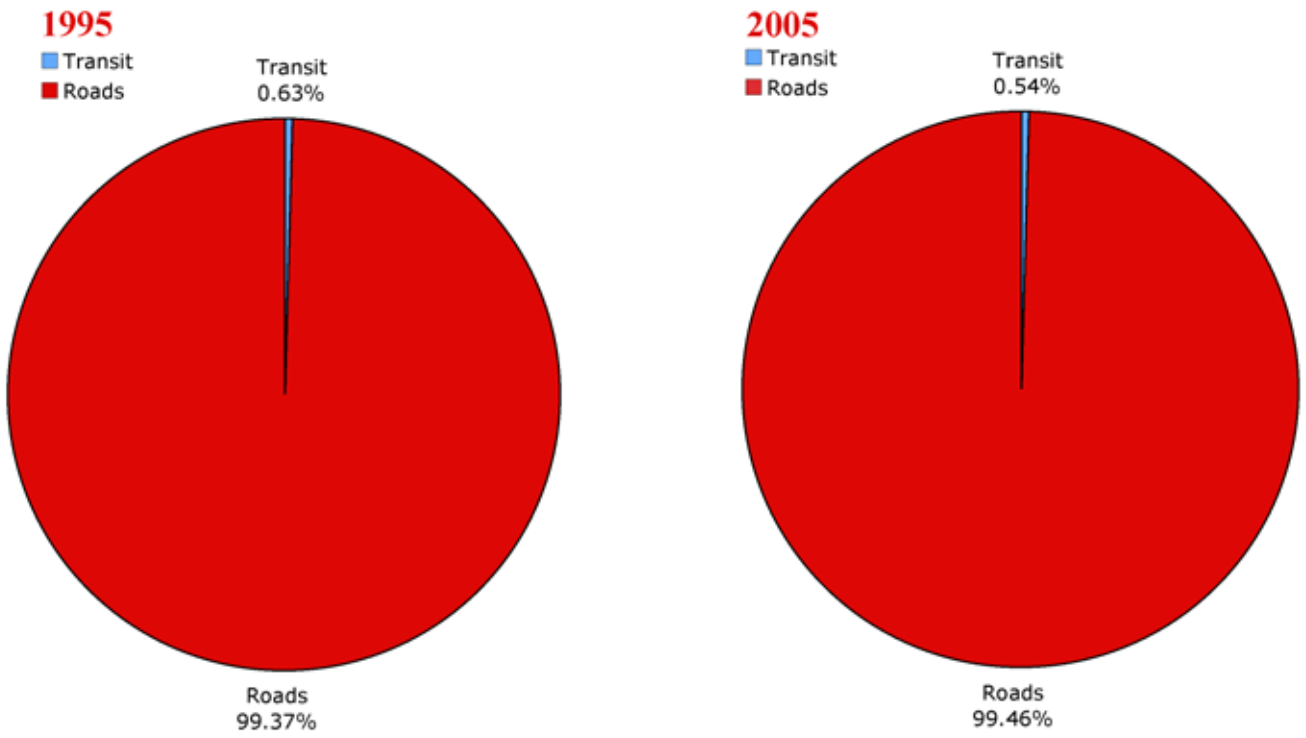
> • Have more choices for housing arrangements and travel options;
> • Invest in transportation that best supports growth while maintaining the character of our communities;
> • Invest in transportation that protects and preserves the environment that gives North Carolina its natural beauty and unique character.[9]

There are two major aspects to the vision: livable communities and sustainable development. *Livable communities* emphasizes:

> • Accommodating pedestrians;
> • Enhancing streetscapes;
> • Creating visually attractive public spaces;
> • Preserving natural areas;
> • *Restraining and restricting motor vehicles* and traffic in heavily developed areas and activity centers; and
> • Providing extensive, fully-integrated public transportation.[10] (Emphasis added.)

Even if those goals were desirable, *transportation* funds should not be put toward achieving them instead of toward meeting mobility needs.

Figure 3: Transit's Share of Urban Motorized Travel in Charlotte, N.C., 1995 and 2005



Total transit passenger miles were divided by total passenger miles (driving and transit).
Source: National Transit Database and the Federal Highway Administration's "Highway Statistics, 1995"[11] and "Highway Statistics, 2005."[12]

Sustainable development involves "two major principles: more efficient use of resources; and fulfillment of current needs without compromising the ability to fulfill future needs."[13] The report describes how sustainable development is related to transportation by equating mobility goals with environmental goals:

> For transportation planning and decision-making, sustainable development primarily means *reducing our dependence on personal vehicles* to balance mobility needs with commitments to use less energy, improve air quality, preserve land and conserve limited resources.[14] (Emphasis added.)

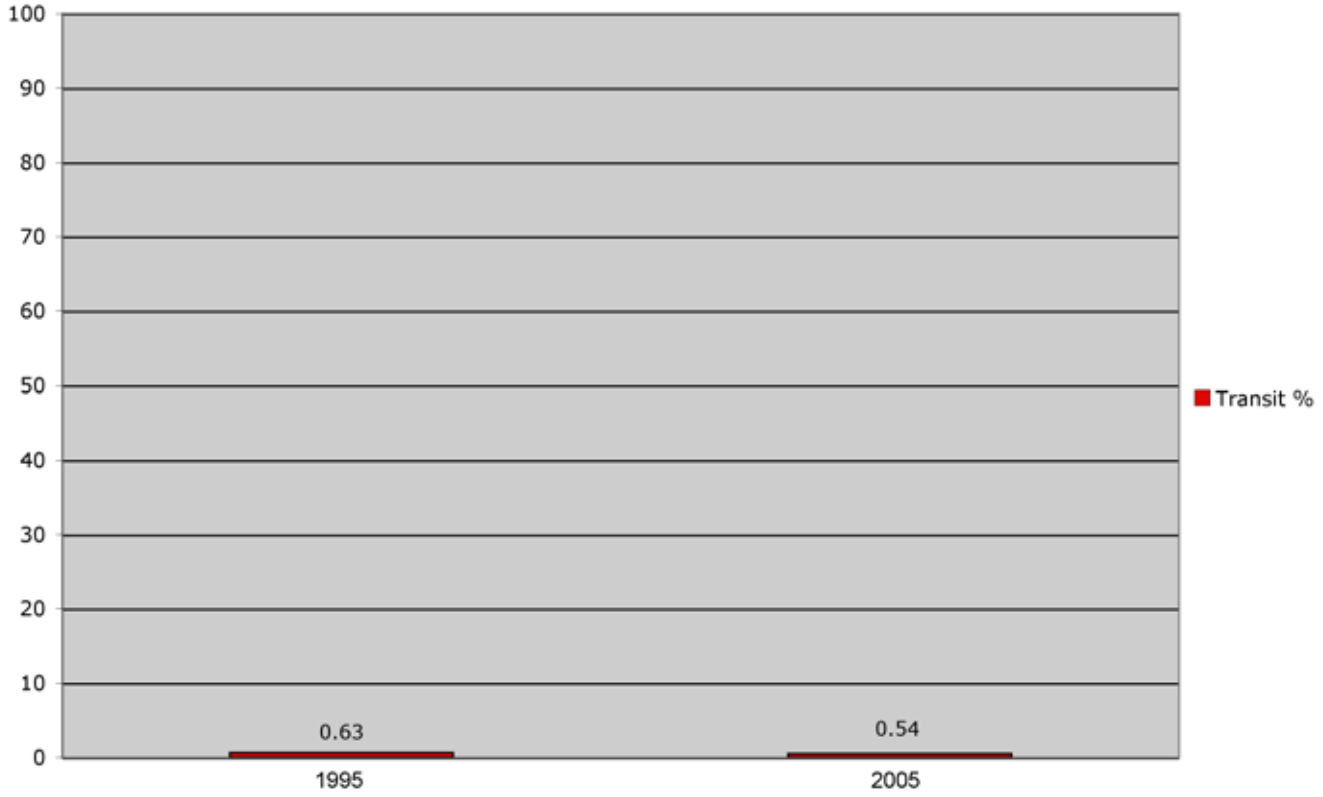
NCDOT's Transportation Plan

The Statewide Transportation Plan is a document created by the NCDOT that provides policy and investment recommendations for the next 25 years. The latest report, published in 2004, also envisions environmental policy and centrally planned high-density urban development being central tenets of transportation policy. According to the plan:

> It should be seen as a "living document" that focuses our resources on (among other things):
>
> • Strengthening stakeholder partnerships to support the development of sustainable, vibrant communities;
> • Promoting economic vitality while preserving and enhancing natural and cultural resources.[15]

All of these principles espoused in the Transit 2001 plan and the Statewide Transportation Plan have been put into action in North Carolina (see, e.g., the quotation in Figure 2).

Figure 4: Change in Transit's Share of Urban Motorized Travel in Charlotte, 1995 to 2005



Total transit passenger miles were divided by total passenger miles (driving and transit).
Source: 1995 and 2005 National Transit Databases and the Federal Highway Administration's "Highway Statistics" (1995 and 2005).[16]

Misplaced Priorities

North Carolina has enough transportation needs without having to use transportation funds to meet environmental and land-use goals. With thousands of bridges deemed deficient, there is a misplaced set of priorities when additional money to fix the bridges is instead diverted to enhance streetscapes, restrict motor vehicles, preserve land, enhance cultural resources, and meet other goals that have absolutely nothing to do with transportation.

The question of priorities is an ethical question as well. Should transportation dollars go to critical infrastructure needs that may save lives or to make sure that we have "visually attractive public spaces?"[17]

The Limitation of Public Transit

Public transit is the centerpiece of the current transportation policy — it is the means by which goals such as preserving open space are supposed to be achieved. It largely fails to achieve the most important goal, however, which is to improve the mobility of North Carolinians.

Transit's Share of All Urban Motorized Travel (Driving and Transit)

There often are claims that "ridership" is increasing on public transit systems. These claims, however, are misleading in many ways. "Ridership" is not the total number of passengers, but the total number of *unlinked passenger trips* — these refer to the number of all passengers that board all public transit vehicles. For example, if a person takes three different buses to get to a destination, this would count as three unlinked passenger trips.[18]

Figure 5: Long-Range Plan Funds by Mode[19]

	(in thousands of dollars)				*Transit Share*	*Transit Share*
MPO Region	*Highway*	*Transit*	*Other*	*Total Funding*	*(Percent) of Funds*	*(Percent) of Commuting*
Charlotte	$4,699	$6,346†	—	$11,045	**57.5**	**2.6**
Raleigh	$5,726	$2,174	—	$7,900	**27.5**	**1.2**
Durham	$2,778	$3,104	$240	$6,122	**50.7**	**3.0**
Greensboro	$2,955	$743	$115	$3,813	**19.5**	**1.3**
Winston-Salem	$2,362	$43*	—	$2,362	**1.8**	**1.5**
Fayetteville	$2,153	$200*e*	—	$2,353*e*	**8.4**	**0.8**
Hickory	$1,680	$116	—	$1,796	**6.5**	**0.3**
Concord	$1,421	$50*e*	—	$1,471*e*	**2.9**	**0.4**
Asheville	$1,298*e*	$42*e*	$70*e*	$1,411*e*	**3.0**	**0.8**
Wilmington	$1,193	$180	$8	$1,380	**13.0**	**0.9**
High Point	$1,071	$9*	—	$1,071	**0.8**	**1.3**
Gastonia	$934	$95	—	$1,030	**9.3**	**0.3**
Goldsboro	$900	$34	$11	$945	**3.6**	**0.4**
Jacksonville	$682	$37	$8	$727	**5.1**	**0.8**
Greenville	$533	N/A	—	$533	**N/A**	**0.8**
Burlington	$492	N/A	—	$492	**N/A**	**0.1**
Rocky Mount	$322	$1	—	$323	**0.4**	**0.4**

e estimated
* through 2010
† Latest: $8.4 billion

When transit agencies expand their transit systems, the number of unlinked passenger trips can increase simply because the existing transit riders are using the system more. In other words, there can be an increase in "ridership" without an increase in riders. The ridership number also can be misleading if road travel increased at an even higher rate than transit travel or if there had been population growth (both are likely in North Carolina).

To better measure whether there is an increase in demand for public transit, the "market share" for transit can be calculated. For example, transit accounted for only 0.54 percent of urban motorized travel in the Charlotte area, where transit is being pushed extensively. Since 1995, the market share for transit in the Charlotte area has actually *decreased* by 14 percent. Transit's market share in Charlotte for 1995 and 2005 is shown in Figure 3. It should be noted that in Charlotte, total transit passenger miles increased by 81 percent, but this was offset by the 109 percent increase in total road passenger miles (all passenger miles in personal vehicles, such as cars).

Disproportionate Spending

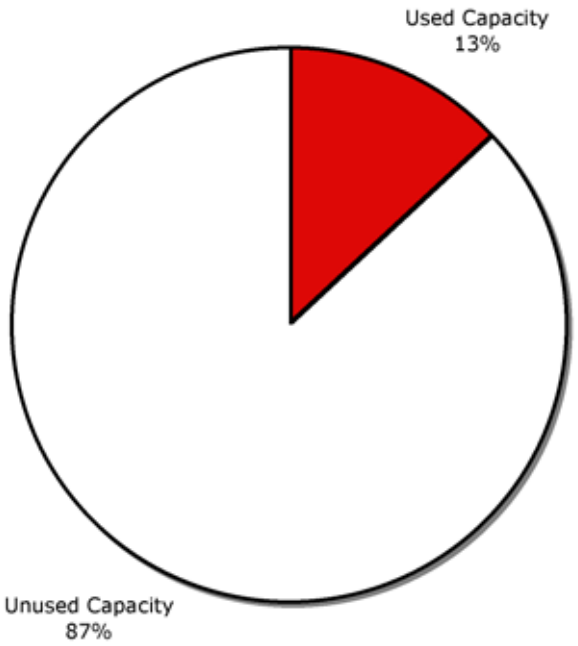
North Carolina's 17 metropolitan planning organizations (MPO) develop transportation plans for their metropolitan areas. As shown in Figure 5, most of the MPOs are planning to spend an excessive share of their budgets on transit. The Mecklenburg-Union Metropolitan Planning Organization (MUMPO) is the MPO serving the Charlotte area.[20] In the Charlotte area, 57.5 percent of the budget would serve 2.6 percent of all commuters. This 57.5 percent number also would serve, as shown in Figure 3, only 0.54 percent of all urban motorized travel (i.e., not just commuters) in the Charlotte area.

This means MUMPO plans to spend 22 times more than what is proportional to the actual commuter use of transit. It is 106 times more than what is proportional for transit's share of urban motorized travel. On average, all of the MPOs' spending is 13 times greater than the transit use by commuters. In addition, the average share of commuting by transit is less than 1 percent (0.99 percent) for all the MPOs' regions.[21]

Transit Vehicle Occupancy Rates

Given the desire to shift more funding to transit, there would be a presumption that transit vehicles, such as buses, are now at, or close to, full capacity. However, examining the largest transit system in the state, Charlotte Area Transit System (CATS), the average number of bus passengers is 6.7 individuals per bus. According to the National Transit Database, the average CATS bus has 36.8 seats and 15 spots for standing capacity — the total average capacity is therefore 51.8 seats/spots. As shown in Figure 6, this means CATS buses are filled at only 13 percent of capacity — only about one out of 10 seats are filled. The number of bus passengers in Charlotte (6.7 passengers per bus) also is significantly lower than the already low national average of 10.3 passengers per bus.[22]

Figure 6: Bus Occupancy Rates in Charlotte



Source: 2005 National Transit Database[23]

Conclusion

Wasting money on transit or highway projects at the expense of bridges and other critical infrastructure is bad government and arguably unethical. When it comes to transportation policy, the time for appeasing environmental special interests at the expense of the public needs to end. Admittedly, it is politically incorrect to challenge this new transportation philosophy. Even a suggestion that rational thinking should guide funding for public transit could come under attack.

Policymakers, though, need to get back on the right track when it comes to transportation. Hopefully, it will not require a bridge collapse and lost lives in North Carolina for policymakers to rethink priorities and question the merits of spending excessively on transit or pushing transportation polices that are more concerned with pretty public spaces than safe roads and bridges.

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End Notes

1. United States Department of Transportation (US DOT), Bureau of Transportation Statistics' web page entitled "Condition of U.S. Highway Bridges by State: 2007," data updated as of August 13, 2007, www.bts.gov/current_topics/2007_08_02_bridge_data/html/bridges_by_state.html.
2. "Charting a New Direction for NCDOT: North Carolina's Long-Range Statewide Multimodal Transportation Plan," North Carolina Department of Transportation (NC DOT), September 2004,p 21. The plan is known as the "Statewide Transportation Plan." It can be accessed at www.ncdot.org/doh/preconstruct/tpb/statewideplan/pdf/NCStatewideTransportationPlan.pdf.
3. *Op. cit.*, note 1.
4. "2006 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance," US DOT, at Chapter 3 (2004), www.fhwa.dot.gov/policy/2006cpr/pdfs/chap3.pdf.

5. Patton, Zach, "Back on Track," *Governing*, June 2007, www.governing.com/articles/6transit.htm.
6. *Op. cit.*, note 4, at Chapter 1, www.fhwa.dot.gov/policy/2006cpr/chap1.htm#highway.
7. "Transit 2001 Technical Report," Transit 2001 Commission, Executive Summary, www.ncdot.org/transit/transitnet/Activities/T2001/SummaryPage1.html.
8. "Transit 2001 Technical Report," Transit 2001 Commission, Chapter Five, www.ncdot.org/transit/transitnet/Activities/T2001/TechReportSec5.1.html.
9. *Ibid.*
10. *Ibid.*
11. National Transit Database, 1995, Table 26 and "Highway Statistics 1995," Table HM-71, www.fhwa.dot.gov/ohim/1995/hm71.pdf.

    Data were calculated by dividing total transit passenger miles by total passenger miles (road and transit). In the Charlotte area, there were 49,512,524 transit passenger miles, as listed in the 1995 National Transit Database, Table 26.

    There were 7,921,376,000 road passenger miles in the Charlotte urbanized area in 1995. To obtain this number, the "total daily vehicle-miles of travel" (DVMT), as provided in "Highway Statistics 1995," Table HM-71 for the Charlotte urbanized area was multiplied by 365. This number was then multiplied by 1.6 to get total road passenger miles. The 1.6 number represents the average vehicle occupancy for all trips as listed in the 2001 National Household Travel Survey, Summary of Travel Trends, December, 2004 at 31, nhts.ornl.gov/publications.shtml.

12. National Transit Database, 2005, Table 19, www.ntdprogram.gov/ntdprogram/pubs/dt/2005/PDF/2005_Table_19.pdf and "Highway Statistics 2005," Table HM-72, www.fhwa.dot.gov/policy/ohim/hs05/htm/hm72.htm.

    Data were calculated by dividing total transit passenger miles by total passenger miles (road and transit). In the Charlotte area, there were 89,547,694 transit passenger miles, as listed in the 2005 National Transit Database, Table 19.

    There were 16,590,856,000 road passenger miles in the Charlotte urbanized area in 2005. To obtain this number, the "total daily vehicle-miles of travel" (DVMT), as provided in "Highway Statistics 2005," Table HM-72, for the Charlotte urbanized area was multiplied by 365. This number was then multiplied by 1.6 to get total road passenger miles. The 1.6 number represents the average vehicle occupancy for all trips as listed in the 2001 National Household Travel Survey, Summary of Travel Trends, December, 2004 at 31, nhts.ornl.gov/publications.shtml.

13. *Op. cit.*, note 8.
14. *Ibid.*
15. *Op. cit.*, note 2, at 1.
16. *Op. cit.*, notes 11 and 12.
17. *Op. cit.*, note 8.
18. Ridership, as stated, refers to unlinked passenger trips. It allegedly is "impossible" to count the actual number of riders. The American Public Transportation Association's web page entitled "Number of People Using Public Transportation" explains why "ridership" is "unlinked passenger trips," www.apta.com/research/stats/ridership/people.cfm.
19. Hartgen, David T., "Traffic Congestion in North Carolina: Status, Prospects, & Solutions," John Locke Foundation *Policy Report*, March 2007, www.johnlocke.org/policy_reports/display_story.html?id=82.
20. The Mecklenburg-Union Metropolitan Planning Organization (www.mumpo.org) serves the Charlotte urbanized area.
21. To calculate the average ratio of the spending share on transit to the share of commuter transit use for the MPOs, all the spending shares were averaged and all the commuter shares were averaged. Data for Greenville and Burlington were excluded because there were no transit spending data.

    To calculate the average share of commuting, the MPOs' shares of commuter transit were averaged, including Greenville and Burlington's.

22. 2005 National Transit Database. Average capacity for buses was calculated using data from the database. Bus passenger data was calculated using data from Table 19 of the NTD. To calculate Charlotte Area Transit System's average number of bus passengers, bus annual passenger miles were divided by bus annual vehicle revenue miles (using CATS data). To calculate the average number of bus passengers for all the transit systems, bus annual passenger miles were divided by bus annual vehicle revenue miles (using national totals).
23. *Ibid*.

Appendix: Total Number of Deficient Major Bridges* in North Carolina, by County

County	*No. Bridges*
Alamance	3
Beaufort	4
Bertie	1
Brunswick	7
Buncombe	56
Burke	13
Cabarrus	25
Caldwell	4
Carteret	3
Catawba	8
Chatham	4
Cleveland	4
Columbus	3
Craven	5
Cumberland	31
Davidson	17
Davie	5
Duplin	1
Durham	41
Edgecombe	3
Forsyth	58
Gaston	7
Granville	3

County	*No. Bridges*
Guilford	54
Halifax	1
Harnett	3
Haywood	12
Henderson	12
Hertford	1
Hoke	1
Iredell	33
Jackson	6
Johnston	18
Lee	2
Lenoir	5
Lincoln	4
Macon	2
McDowell	1
Mecklenburg	52
Moore	5
Nash	9
New Hanover	19
Onslow	3
Orange	21
Pamlico	1
Pasquotank	3

County	*No. Bridges*
Pender	1
Pitt	5
Polk	2
Randolph	11
Richmond	3
Robeson	14
Rockingham	5
Rowan	14
Rutherford	5
Scotland	1
Stanly	2
Stokes	2
Surry	10
Swain	1
Transylvania	2
Union	3
Vance	5
Wake	64
Warren	2
Wayne	13
Wilkes	2
Yadkin	3

*A *major bridge* is defined as a bridge that carries at least 10,000 vehicles a day. Not every county in N.C. has a major bridge, which is why not all N.C. counties are listed above. Also, the Federal Highway Administration classifies bridges as *deficient* for two reasons. They are considered either structurally deficient or functionally obsolete. *Structurally deficient* generally refers to the deterioration of a bridge, and *functionally obsolete* generally refers to a bridge's design not meeting current usage.

Sources: "2006 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance," US DOT, at Chapter 3 (2004), www.fhwa.dot.gov/policy/2006cpr/pdfs/chap3.pdf; calculations made from data compiled by MSNBC using Federal Highway Administration data, "Deficient Major Bridges in North Carolina," www.msnbc.msn.com/id/20099116.