The Center for Transportation Policy Studies at UNC Charlotte is currently involved in a study that studies the growth and trends in Air and Rail Freight Commodity Flow including the growing need of expansion in these areas. This large study includes research from academic institutions across the state of North Carolina including: North Carolina State, UNC Greensboro, and A&T University as well as several individual consultants. The study’s analysis will be presented to the NC General Assembly by the end of April 2008.

The study begins by looking at Air Freight across North Carolina. UNC Charlotte had previously conducted two studies that showed significant regional impacts from the airports in Charlotte and Raleigh. In 2004, the Charlotte Douglas International Airport had a regional impact of $10 billion dollars in one year; and in 2006, the Raleigh-Durham International Airport had a regional impact of $12 billion dollars in one year. North Carolina airports are categorized in three tiers that are classified by the air cargo shipped and received. The first tier airports service to multiple connecting hubs and origin-destination markets. Piedmont Triad, Charlotte Douglas International, and Raleigh-Durham International all fall into the first tier and handle between 180 and 360 million total pounds of air freight shipped out or received annually. First tier airports are responsible for 98% of all cargo shipped and received.

The previous study on regional impact completed by UNC Charlotte, showed that airports impact the region in two ways: Direct impact and Indirect impact. Direct impacts include airport authority itself, tenants, (including air cargo companies), vendors, corporate and general aviation sectors, airport contractors; and expenditures by airline passengers who live outside the area. Indirect impacts include regional employers, and elements of travel industry such as hotels and travel agencies.

The second tier includes airports with service by multiple air freight carriers and ship and receive between one and five million pounds of air freight annually. In North Carolina some of the second tier airports include Asheville, Wilmington/New Hanover county, New Bern/Craven, and Rocky Mount/Wilson. The third tier airports have a combination of commuter air service and general aviation, as well as air cargo commercial carriers. In North Carolina, these airports include: Fayetteville and Person county and three military air bases of Seymour Johnson, Cherry Point, and Pope Air Force Base.

North Carolina has experienced unpredictable growth with dramatic increases in 2002 and 2003 of shipped cargo, and the amount carried in 2004 was almost 300% greater than in 2001. Transportation systems have attributed to much of the regional industrial and business expansion in the three major urban regions. More than 600 daily departures both passenger and in hold cargo, are made from Charlotte Douglass International that provide service to 150 cities nationwide and to several off-short markets. Projections of air freight into the next decade show the value of air cargo growing from $29 billion in 1998, to $72 billion in 2010, and $126 billion in 2020. Charlotte Douglas International will open the $320 million third runway in early 2010 which will provide additional capacity for air freight.
Charlotte Douglas International is in a growth mode in terms of air freight operations, and the city of Charlotte Aviation Department is involved in the planning process to move up as a more prominent national hub for air freight. The concept of a balanced, integrated freight transport system is essential for decision-makers at the State and local levels in North Carolina to plan for the future.

The study also concentrates on a second mode of flow commodity in Rail Freight. In 2008, North Carolina continues to be served by two Class I railroads and 21 short line railroads. The two class I railroads, Norfolk Southern and CSX Transportation, maintain 2,597 miles of track in North Carolina and the short lines operate on 782 miles. Norfolk Southern operates an extensive intermodal network and is the nation’s largest rail carrier of automotive parts and finished vehicles. CSX Transportation operates the largest rail network in the eastern United States, connecting with every Class I freight railroad and several short-line partners in North America, Canada and Mexico. In addition to the longer rails, an important part of rail freight business in the State is a very vibrant short line rail system. The highest volume of freight traffic is on the CSX line connecting Charlotte to the Port at Wilmington, the Norfolk Southern/NCRR line from Charlotte through Greensboro to Raleigh, and the CSX line that runs north-south roughly parallel to Interstate Highway 95. Those three corridors handle approximately 20 million tons of freight annually. In spite of a relatively robust condition of the overall rail freight system in the state, there continue to be issues with the loss of rail access to individual businesses from time to time. Over 700 miles of track have been abandoned in North Carolina and have created shifts in freight mode and forced industry to ship products by truck. While a number of improvements are currently being planned for the State’s rail system that are primarily aimed at improving passenger rail service, the consequences are that freight service would also be a beneficiary of those improvements.

Through conducting the study, major strengths and opportunities have become apparent concerning the freight through air and rail. There exists a continuing growth market for air freight and especially for highway truck freight business due to the state’s population growth, the expansion of ‘high tech’ businesses, and the State’s role as a manufacturing center. The completion of the FedEx terminal at Piedmont Triad International will allow for substantial secondary logistics-related businesses to emerge in developable areas near the airport. Growth at Raleigh-Durham International is expected to continue with available ramp space for additional freight facilities providing a significant capability for addition air cargo capital investments and operations. Interest exists in developing inland ports such as the one to be completed at Charlotte Douglass International, in other places like Western North Carolina, the Global TransPark development and in the North Eastern part of the state. The rising manufacturing sectors of health and safety technologies, communication and electronic components, and pharmaceuticals and biomedical products will demand air cargo services, both from certified freight carriers and from the cargo capacity of passenger airlines. The opportunity exists to expand the I-95 Corridor Coalition to include air, rail, truck, and seaport intermodal issues with participation by the NCDOT. Opportunity exists to address funding needs in critical multimodal
corridors, and increase both rail and highway capacity where there are critical needs. There is an opportunity to create freight and logistics planning regions for both the Department of Commerce and the Department of Transportation to work together in the 14 field divisions of the NCDOT. There is also an opportunity for the UNC system schools to create new programs linking together the disciplines of transportation logistics, finance, economics, and public policy in order to “enhance the economic transformation and community development of North Carolina’s regions.”

Quote from UNC System President Erskine Bowles (Final Report, University of North Carolina Tomorrow Commission, December 2007).