

Introduction

Freight activities represent an important contributor to the economic vitality of the region. National and state data indicate a continued increase in freight traffic, especially on US highways and interstates. With access to major state highways, interstates, rail, and aviation, GPATS must consider ways to improve freight movement and maintain adequate freight access. A safe and efficient transportation system that accommodates the needs of the freight community is an important element of the *GPATS Long-Range Transportation Plan*.

The needs of the local freight community emerged several times during the planning process. In addition to the public workshop and discussions with the Transportation Plan Advisory Committee, a freight movement survey was distributed to freight stakeholders throughout Upstate South Carolina. The results of the survey provided important information, including the origin and destination of regional freight trips, peak movement times, and areas of concern. GPATS used the results of the survey to develop recommendations for improving the freight network. A brief description of the survey can be found later in this chapter.

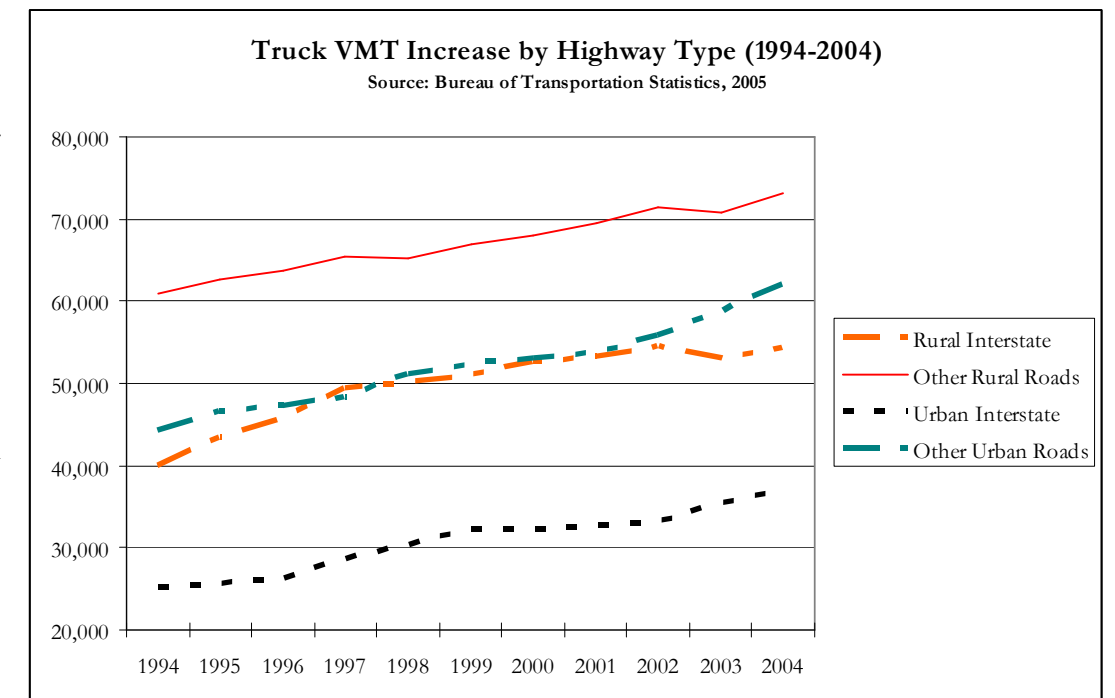


National and State Freight Trends

According to the Bureau of Transportation Statistics, truck shipments account for 75% of all outbound shipments within the United States. This trend is stronger in South Carolina where trucks carry 88% of all outbound shipments. As shown in the graph to the right, truck vehicle miles traveled (VMT) by highway type consistently increased between 1994 and 2004.

Overall, truck VMT has increased by 10% since 1994. The largest gains occurred on urban interstates and urban streets, with increases of 48% percent and 40% respectively. Over the past decade or two, changes in manufacturing to “just in time” freight deliveries have increased the amount of freight in transit at any given time. While “just in time” inventory enables the manufacturer to save money by limiting the amount of land and warehouse space needed, it also increases truck traffic throughout the day. These increases particularly have occurred in urban areas.

Assuming this trend persists and the economy continues to diversify and grow, issues related to goods movement will require more attention in the GPATS region.



Existing Conditions

Historically, the movement of freight within and through the GPATS region has occurred along primitive roads, railroads, rivers, and networks of locks and dams. The earliest travel routes in the Greenville region formed to facilitate the movement of goods from farms to cities. The more prominent routes secured the general location for some of the region's most heavily traveled truck routes today. In 1800, a network of canals allowed goods to move from the upcountry to the port in Charleston. The first wave of railroad construction made transporting goods more economical and led to growth in city centers throughout the region.



Greenville-Spartanburg International Airport

Today, horse-drawn buggies have given way to trucks of various sizes. And while shipments via canal have subsided, airfreight now transports goods into and from the region to points around the world. **Figure 8.1** identifies the location of existing freight facilities in the GPATS region.

Highways

A network of interstates, US highways, and SC highways connect Greenville and the surrounding areas with other metropolitan regions across the nation. Stretching from Atlanta, GA to Richmond, VA, I-85 provides a critical connection to points southwest and northeast. I-385 connects downtown Greenville with I-85, the Golden Strip (Mauldin, Simpsonville, Fountain Inn), and I-26. I-185 is a toll facility connecting the Mauldin-Simpsonville area with southwest Greenville and I-85.



These facilities are supplemented by a network of federal and state highways. US highways that traverse the GPATS region include US 123, US 276, US 178, and US 25. Major SC highways include SC 14, SC 146, SC 290, SC 11, and SC 291.

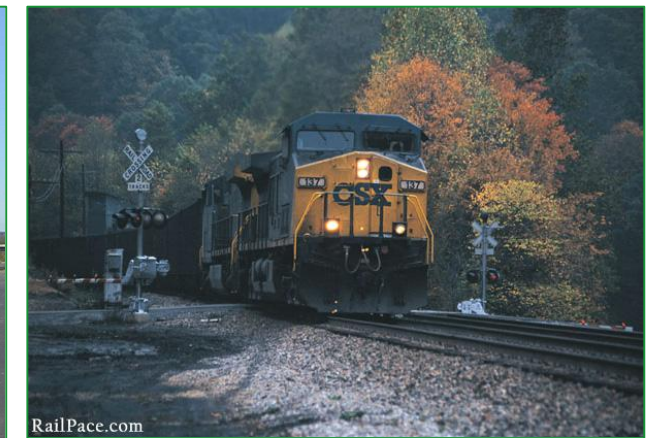


Rail

Several prominent transportation companies operate and maintain railroad corridors in the GPATS region. CSX Transportation operates a line that enters the study area in Pelzer, runs through downtown Greenville, and continues east to Spartanburg. CSX also operates a rail-to-truck transloading facility in Greenville.

The Norfolk Southern line parallels I-85, entering the area in Liberty and continuing through Easley and north of Greenville before exiting the area near Greer. A spur from this railway connects to Donaldson Center Airport. An abandoned spur from Greenville to Travelers Rest is being examined as a possible multimodal corridor with possible transit, bicycle, and pedestrian facilities.

Other lines in the region include a spur operated by Pickens Railway Company that connects the City of Pickens with the Norfolk Southern line in Easley. Carolina Piedmont operates a line that enters the study area in Fountain Inn and continues north into Greenville. The northernmost portion of this line is abandoned, and City of Greenville officials have discussed obtaining the right-of-way for use as a bus rapid transit corridor connecting ICAR and Verdae with downtown Greenville (See **Chapter 7**).



Air

Donaldson Center Industrial Air Park

The 2,600-acre Donaldson Center Industrial Air Park, located south of I-85 and east of I-185, is a multimodal airport and industrial park with highway and railway access. Formerly the Greenville Army Air Base, the park contains an 8,000-foot concrete runway and is recognized as a major aircraft maintenance and modification center. Lockheed Martin and Stevens Aviation employ more than 2,000 people at the location. The City of Greenville and Greenville County jointly own the center, which is managed by the Donaldson Development Commission.

In 2004, a new \$1.3 million air traffic control was dedicated at the air park. Long-term plans include the construction of an air cargo terminal and the development of additional property adjacent to the second runway, which is currently inactive. Existing intermodal facilities at the site include the runway, two rail spurs, and connections to I-85.



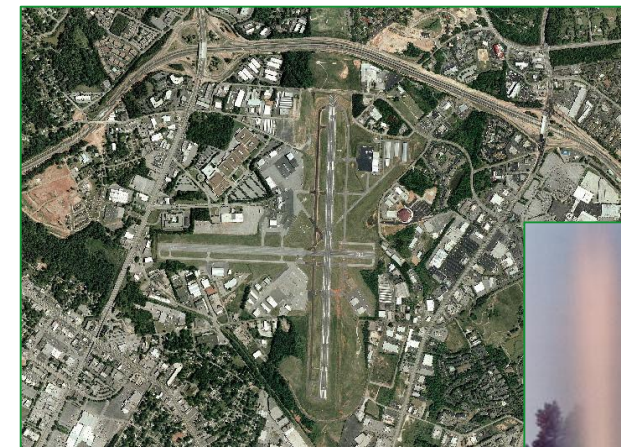
Greenville Downtown Airport

Greenville Downtown Airport, located west of I-385 at Pleasantburg Drive, is the busiest general aviation airport in South Carolina. More than 80,000 planes take off or land each year and more than 238 local aircraft are based at the airport. Operated by the Greenville Airport Commission, it is home to 453 employees and more than 25 aviation-related businesses that annually contribute more than \$35 million to the Upstate economy. Currently, no major freight carriers operate out of the airport.



Greenville-Spartanburg International Airport (GSP)

Greenville-Spartanburg International Airport (GSP), located north of I-85 between Greenville and Spartanburg, boasts more than 1.5 million annual passengers and handles more than 22,000 tons of cargo each year. A total of 16 airlines offer 77 non-stop daily departures to 19 major cities across the United States. GSP also is the major air freight facility in the region. FedEx, DHL, UPS, and the U.S. Postal Service have sorting facilities at GSP. The airport is home to more than 750 employees and more than 30 tenants, contributing \$65 million annually to the Upstate economy.



Insert Figure 8.1 – Existing Freight Facilities

Freight Movement Survey

GPATS distributed a freight movement survey to several companies throughout the region that have freight interests. The South Carolina Trucking Association supplied contact information and survey recommendations. Respondents to the email and U.S. mail surveys specified transportation-related problems and concerns in the GPATS region and made recommendations for improving freight movement and access.

The survey included questions regarding inbound and outbound transfers, peak hours of operation, truck type, primary and secondary routes, and the problems associated with each route. In general, survey respondents scored the existing freight transportation infrastructure favorably. Major problems identified include traffic congestion, road conditions (e.g., potholes, grade issues, need of widening, bridge repair/replacement), and lack of on-street loading zones.

Respondents noted an average of 38 inbound and 45 outbound transfers. Almost half (48%) of the freight trips originating in the GPATS area had a destination outside Upstate South Carolina. Greenville County accounted for 25% of freight destinations.

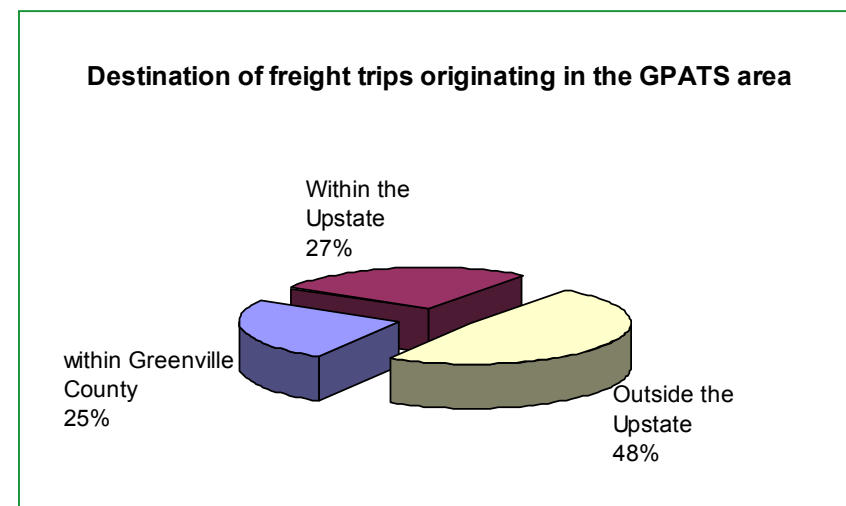
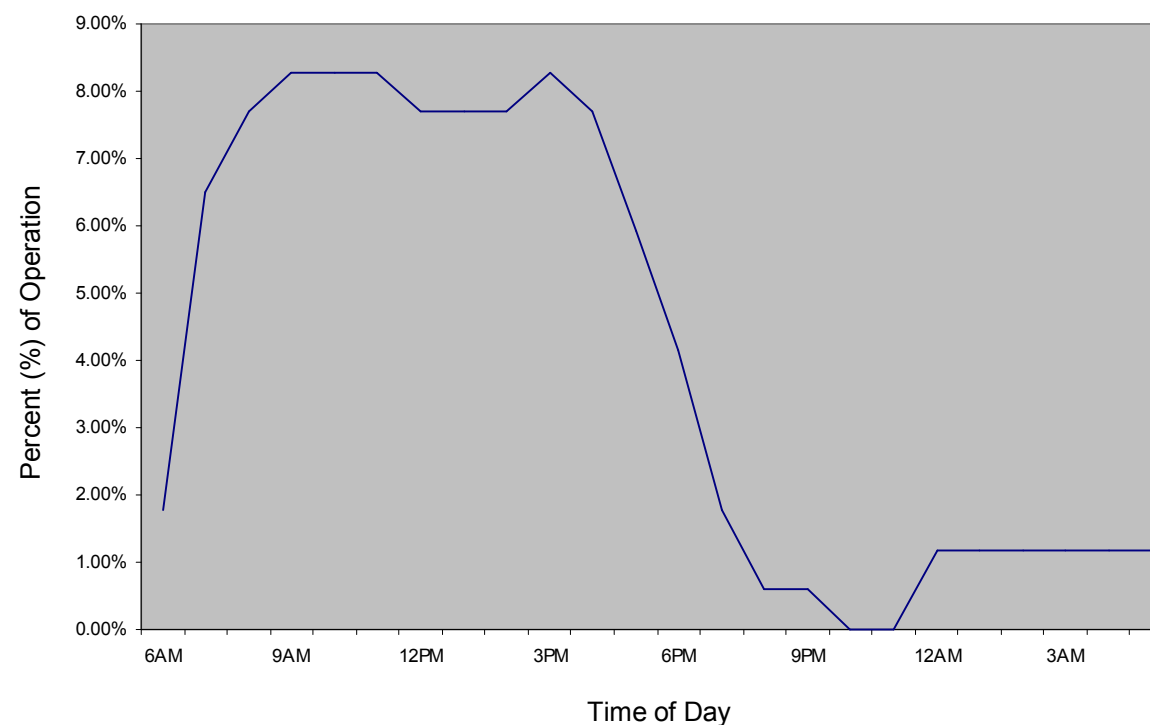


Respondents indicated using the following types of trucks:

- Pickup (12%)
- Panel Van (3%)
- Straight, 2-Axle (15%)
- Straight, 3-Axle (12%)
- Tractor – Up to 55 feet (33%)
- Twin Trailers (0%)
- Interstate Trailers (24%)

According to the survey, morning peak hours of freight operation occur between 9 and 11 a.m. Afternoon peak hour occurs during the 3 p.m. hour. Freight operations are lowest in the evening, especially between 10 and 11 p.m. Future freight volume is expected to increase or stay the same at the surveyed establishments.

Peak Hours of Freight Operation



Specific routes and comments are summarized below:

Interstates

- **I-85 (Greenville metro area)** – Peak period congestion
- **I-85 (from White Horse Road to I-385)** – Significant traffic congestion
- **I-385 (from I-85 to I-26)** – Pavement repairs needed
- **I-85 (from Woodruff Road to SC 101)** – More lanes needed to handle congestion
- **I-85 (from Pickens County to Charlotte)** – Heavy traffic
- **I-385 (from Fairview Road to I-85)** – Morning peak period congestion

US Highways

- **US 29** – Problem turning onto Rutherford Road while driving southbound on Wade Hampton, longer turn lane needed
- **US 123** – No easy way to turn onto US 123 South from Markley Street
- **US 276 (adjacent to the Motor Mile)** – Peak period congestion
- **US 123 (from Easley to Greenville)** – Heavy traffic

State Highways

- **SC 14 (from South Buncombe to North Buncombe)** – Several dips in the road, resurfacing needed
- **SC 290 (from US 29 to US 25)** – Repairs and widening needed
- **SC 291 (intersection at State Park Road)** – Heavy congestion between 4 and 6 p.m., vehicles block intersection; no left turn yield out of Cherrydale
- **SC 290 (from US 29 to US 25)** – More lanes needed
- **SC 183 (from Pickens to White Horse Road)** – Heavy traffic, difficult to pass slower moving vehicles
- **SC 14 (from South Buncombe to I-85)** – Heavy traffic and excessive speeding
- **SC 101 (from SC 290 to SC 14)** – Widening needed

Other Collectors

- **Fairview Road (from Harrison Bridge Road to I-385)** – Heavy traffic
- **Sandra Avenue (from Parkwest Boulevard to White Horse Road)** – Repairs and widening needed

Summary and Recommendations

As traffic congestion continues to increase, accommodating freight movement becomes more important to the region. Given the region's access to automobile, rail, and air transportation facilities, one reasonably can expect freight movement to increase as vehicle trips increase. The following are recommendations intended to improve the efficient, safe, and secure movement of goods and services in the study area:

- When ranking street and highway improvement projects, consider their impact on freight movement
 - Does the project improve access to major freight centers?
 - Is the project part of the South Carolina freight network?
 - Does the project enhance network connectivity, thereby ensuring continued goods movement during an emergency?
- Include ranking criteria that evaluates access improvement and circulation
- Coordinate with regional highway, rail, and air carriers to form a Freight Stakeholders committee to specifically address freight movement concerns
- Consider freight-specific design elements, including appropriate lane widths, turning radii, and adequate separation for pedestrian facilities, where improvements on the South Carolina freight network are recommended



Woodruff Road at I-85