

The Geography of Logistics

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Article:

At the end of the 19th century, the Triad's strategic location as a railroad hub helped trigger the growth of the region's textile industry. Today, as we experience another major economic transformation, our region's roads, rails and runways have once again become the key to the Triad's economic future.

This is one of the conclusions of The Triad Transport/Logistics Inventory and Cluster Mapping Project, a study we recently authored on behalf of the Greensboro Economic Development Alliance. Based on a detailed analysis of company-level data, we found that even prior to next year's opening of the FedEx hub at Piedmont Triad International Airport, the Triad is home to nearly 1,000 transport-logistics (TL) companies employing almost 16,000 workers. Furthermore, these workers tend to be reasonably well-paid, with average salaries in the \$40,000 range.

Cluster Geography

The study had two main objectives. The first was to conduct a comprehensive data analysis to fully describe and map the Triad's cluster of TL industries. This will help local governments develop proactive land-use and zoning policies to mitigate the traffic congestion, noise and air pollution often associated with major transportation hubs.

More than half of the Triad's TL companies are concentrated in either specialized or general-freight trucking. Specialized trucking companies serve national markets and ship products over long distances. Companies like Old Dominion, Epes and MGM Transport tend to seek lower-cost locations just outside urban areas and are broadly distributed across the Triad. In contrast, general-freight trucking firms tend to locate within major urban markets like Greensboro, High Point and Winston-Salem because they handle a wide variety of commodities, focusing on local pickup and delivery.

The Triad's TL cluster is highly diverse and includes much more than just trucking. Air transportation accounts for nearly 12 percent of all the TL jobs in the region. Not surprisingly, most of these companies are located at or near Piedmont Triad International Airport. They include several airlines as well as support companies such as Timco, which provides aircraft maintenance services. Many of these jobs are highly skilled and well paid.

An often overlooked part of the region's TI, cluster is freight-transportation arrangement. Companies in this industry coordinate freight transportation between shippers and carriers. For example, the Triad is the corporate headquarters for New Breed, which helps clients like Verizon, Siemens and the U.S. Postal Service solve their distribution problems. Although small in number, these firms are located throughout the Triad. They tend to locate in corporate parks and employ white-collar workers with significant software and research skills.

A related industry is third-party logistics consulting, which advises businesses in such areas as inventory management and warehousing. This industry is thriving in the Triad and while most of its companies are small, they account for 20 percent of the companies in the cluster. Logistics consultants benefit from face-to-face contact and prefer to locate in already established commercially zoned areas; in the Triad they're heavily

concentrated in Greensboro and Winston-Salem. Attracting more logistics consulting firms to the Triad is important because they have the highest-paid jobs in the cluster, with an average annual salary of \$62,000.

The final component of the TL cluster is warehousing and storage, which employs nearly 1,000 people in the Triad. Most warehouses in the Triad are located next to major highways for access and convenience. Warehousing consumes a lot of space but employs relatively few people, and many of the jobs are low-paid. However, it's difficult for a TL hub to grow without a strong warehousing sector; hence it's crucial that future warehouses be sited so as not to compromise the existing transportation network or use land that could be put to better use.

Needed Improvements

The study's other main objective was to determine what can be improved in the Triad's TL cluster. Economic data can reveal how things are but not what they need to be. To this end, we interviewed 12 Triad executives, representing TL companies as well as manufacturing companies with sophisticated supply-chain operations. We asked the executives about the Triad's strengths and weaknesses for transport-logistics and about such issues as worker skills and infrastructure.

The executives all had a generally positive opinion of the Triad, complementing its transportation linkages to other regions, its high-quality road network, its affordable real estate and its quality of life. They also had high hopes for its future, with one saying, "We need to be the logistics and transport hub of the East Coast."

The executives were happy with their current workers, including their skills and training. For midskill jobs, they were very pleased with the training opportunities provided by the Triad's community colleges. However, the executives expressed concern that skills may fail to keep pace with advancing technologies in the future. Some also noted what one called a "skills deficit" for higher-level logistics workers and analysts, though they didn't identify this as a serious problem because it's fairly easy to hire and bring in such workers from outside the Triad. Of course, from a community standpoint we might prefer to train local workers to fill those highly paid jobs.

Improvements the executives would like to see include more lanes on Triad highways, the rapid completion of both the FedEx hub and the Urban Loop around Greensboro and more networking events for TL managers and executives to share ideas.

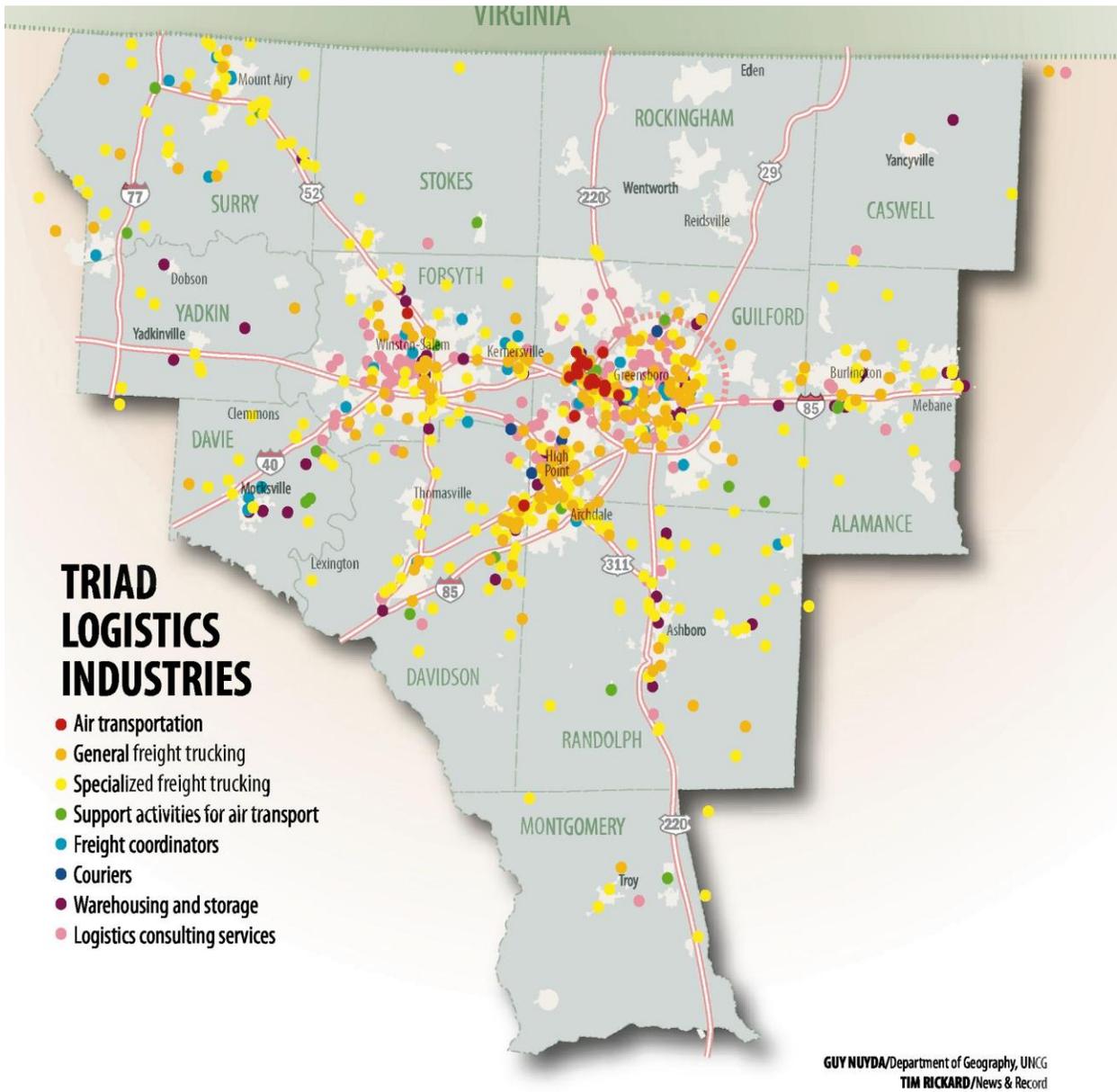
A 'One Triad' Vision

The geography of transport-logistics illustrates the need for a regional approach to further development. The cluster reaches well beyond the PTI Airport area, to all corners of the Triad.

The Triad is emerging as a prime location for TL operations, cultivating promising market niches and offering very competitive wages. Four of the most innovative supply-chain companies in the world — Dell, FedEx, Honda and Procter & Gamble — are already here in the Triad. Further developing this industry cluster would help the Triad develop a competitive advantage and a regional brand recognizable around the world.

The challenge for Triad governments is to facilitate the development of infrastructure networks that allow transport-logistics to flourish. In addition to some road work, the region needs to do a better job of providing fully serviced industrially zoned land in locations that can compete with other logistics sites across the country.

At the same time, the Triad must develop more innovative land-use and zoning policies that can accommodate the expected growth while mitigating the harmful effects on our existing transportation network and environment. An example is the need for sensible zoning near the airport that prevents conflicts between residential and industrial development. As we approach the opening of the FedEx hub next year, we need to address these issues if we hope to build a world-class transport-logistics super-hub while safeguarding our quality of life.



WANT TO KNOW MORE?

The Triad Transport/Logistics Inventory and Cluster Mapping Project report is at <https://web.uncg.edu/bae/documents/cber/articlewLIXq9KVHJ.pdf>.