

Where should a Michigan supply chain company expand next, both in the U.S. and globally?



Polytechnic Institute

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SUPPLY CHAIN VISIBILITY

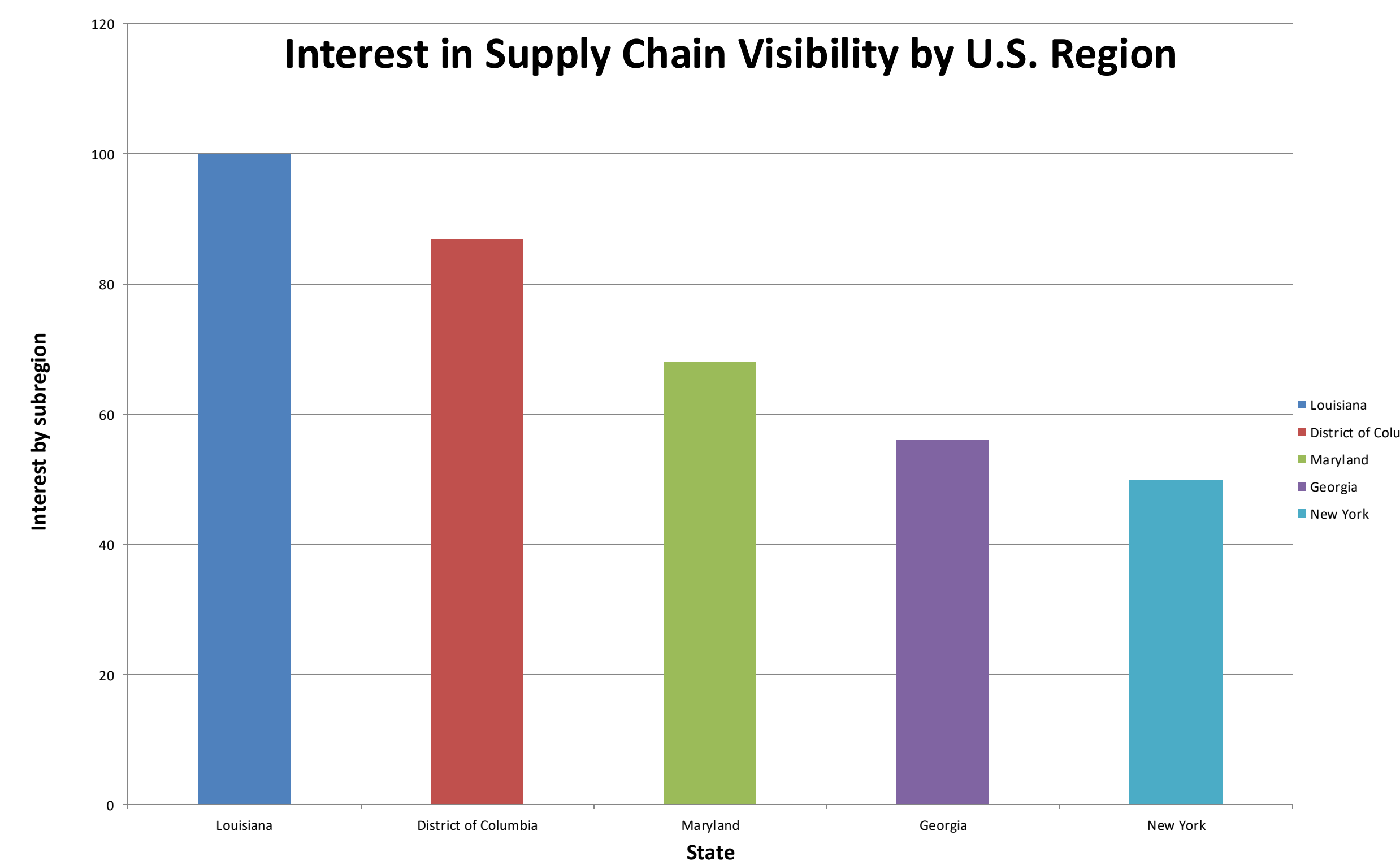
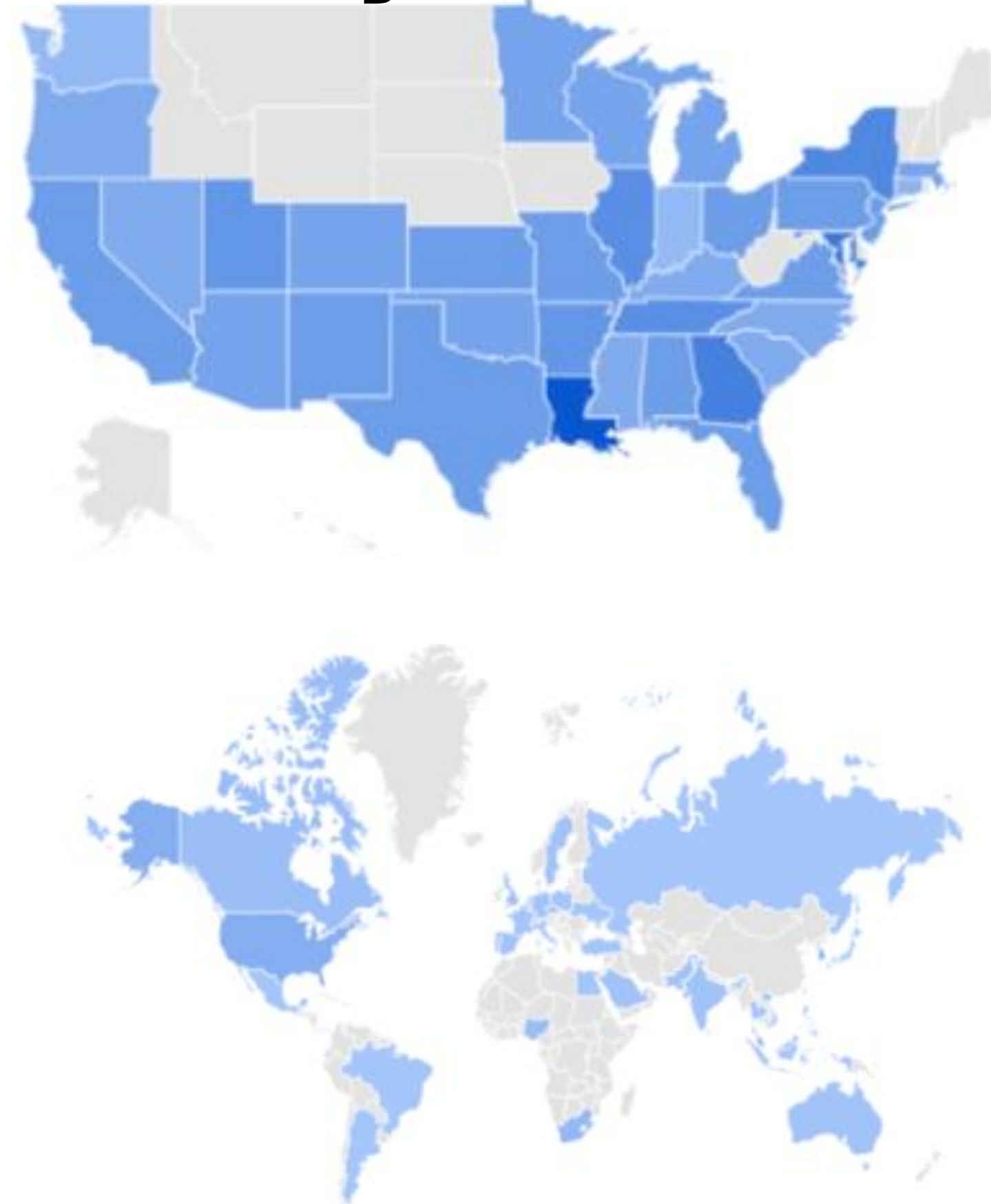
Abstract

Supply chain visibility, the ability to track materials, components, and finished goods throughout the supply network, has become increasingly important as organizations respond to disruptions and rising expectations for real-time information. This study examines how improved visibility supports coordination, operational efficiency, and disruption management across global supply chains. Using Google Trends data from the United States and international markets, the research identifies geographic regions demonstrating increased interest in supply chain visibility technologies. The analysis highlights Louisiana as a strong domestic expansion opportunity and Singapore as a promising international location. Overall, the findings emphasize the strategic importance of investing in digital visibility tools to reduce delays, lower costs, and strengthen supply chain resilience.

U.S Region

Google Trends data from the past 12 months was analyzed to identify geographic regions showing the greatest interest in supply chain visibility technologies in order to determine where expansion opportunities may exist. Supply chain visibility addresses the problem that many organizations lack real time insight into the movement of materials and products across their supply chains, which can lead to delays, inefficiencies, and poor decision making. The results revealed several clusters of interest both domestically and internationally. Within the United States, Louisiana recorded the highest search interest score of 100, followed by the District of Columbia (87), Maryland (68), Georgia (56), and New York (50). Louisiana's strong search interest combined with its access to major transportation corridors and Gulf Coast ports suggests strong potential for logistics expansion and improved supply chain tracking systems.

Results Regional interest in Supply Chain Visibility



Implications/Discussion

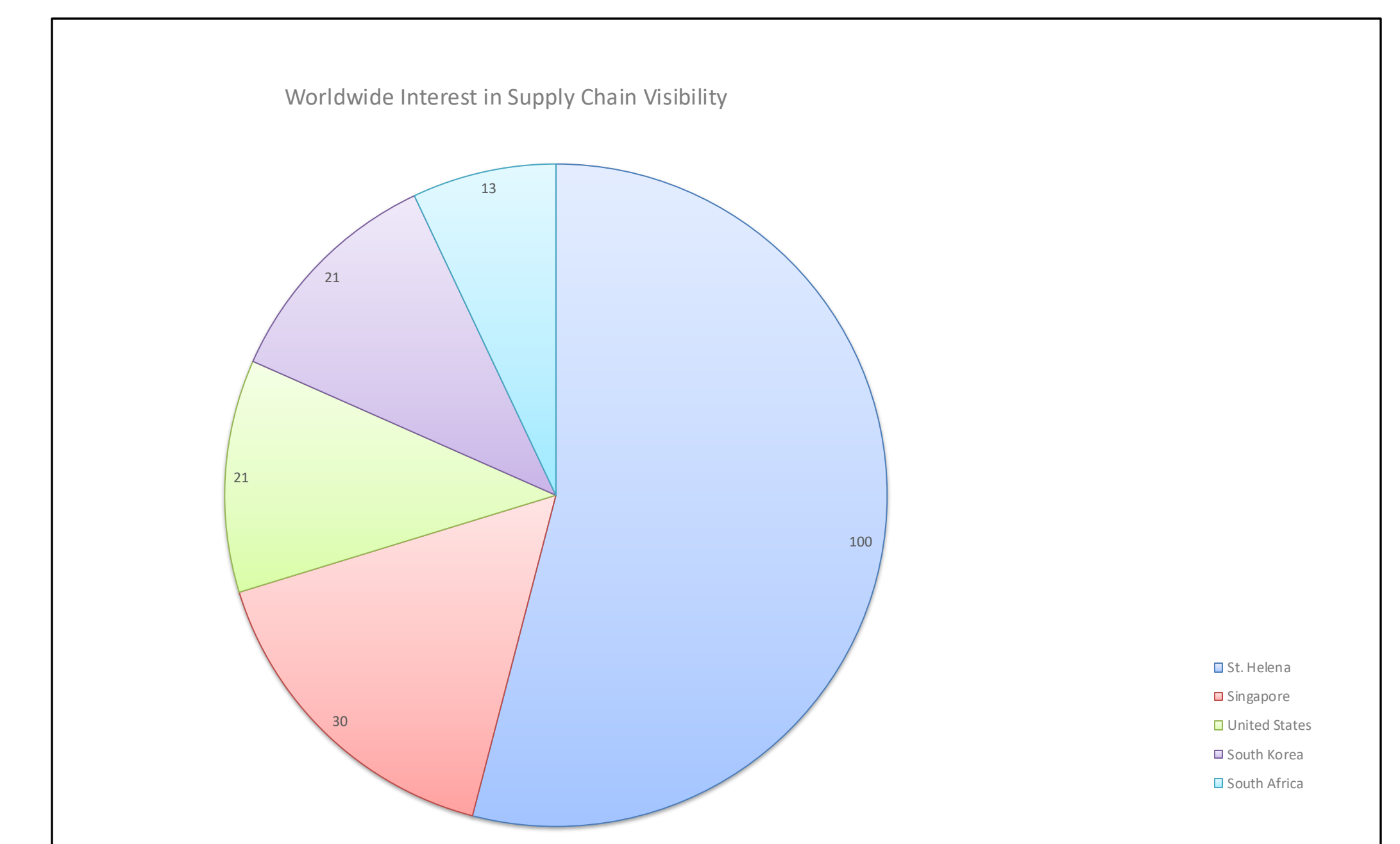
Logistics Indicators: Louisiana vs. Singapore

Indicator	Louisiana (U.S.)	Singapore
Cargo Throughput	251 Mt/yr	622 Mt/yr
Container Throughput	0.65 M TEU/yr	41.1 M TEU/yr
Vessel Arrivals	3.5 K vessels/yr	130 K vessels/yr
Network Connectivity	19 K mi waterways	600+ ports
Trade Share	≈ 60% U.S. Grain Exports	≈ 20% Global Transshipment

Sources:
 Port of South Louisiana, Port of New Orleans, Maritime & Port Authority of Singapore, U.S. Army Corps of Engineers, UNCTAD
 Port of New Orleans, Louisiana container port
 U.S. Army Corps of Engineers.
 UNCTAD

- Louisiana shows highest U.S. demand → strong logistics expansion opportunity
- Southeast regions outperform → proximity to ports drives visibility demand
- Global hubs (Singapore) dominate → infrastructure + connectivity = higher efficiency

Worldwide Interest in Supply Chain Visibility



Worldwide Region

At the international level, Singapore emerged as a promising location due to its consistent search interest and its role as a major global logistics and shipping hub. Although some regions showed higher search scores, Singapore's strategic location in Southeast Asia and strong port infrastructure make it an attractive location for global supply chain operations. The Port of Singapore is one of the busiest shipping hubs in the world and connects major trade routes between Asia, Europe, and North America. Because of this connectivity and its established logistics ecosystem, Singapore presents strong opportunities for companies looking to improve supply chain visibility internationally. Overall, the results suggest that regions with strong transportation infrastructure and high logistics activity also demonstrate greater interest in supply chain visibility technologies, supporting Louisiana as a strong domestic expansion location and Singapore as a strategic international opportunity for improving real time supply chain coordination and visibility.

Why this matters?

Supply chain visibility is critical for organizations operating in complex global logistics networks. Real-time tracking of materials, shipments, and inventory allows companies to identify delays early, respond quickly to disruptions, and coordinate more effectively with suppliers and transportation partners. Improved visibility also helps reduce excess inventory, lower transportation costs, and provide customers with more accurate delivery timelines. As supply chains become increasingly global and data-driven, investing in digital visibility tools can significantly improve operational efficiency, resilience, and decision-making across the entire supply chain.