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RESEARCH SUMMARY

MEASURING THE ECONOMIC CONTRIBUTION OF THE FREIGHT INDUSTRY TO THE MARYLAND ECONOMY

Problem

The study was motivated by the absence of defendable performance measures for the economic contribution of freight transportation services. The need for these measures has become more important due to the forecasted increase in goods movement and population in Maryland.

Objective

The primary objective was to measure the economic contributions of the freight industry to the Maryland economy and to develop a freight economic output (FECO) index that tracks the economic performance of the freight industry over time.

Description

This study measured the economic contribution to Maryland's economy in 2010. Economic impacts were presented as jobs, income, Gross Domestic Product (GDP), and output generated directly, indirectly, and induced by the services provided by the freight industry. Using historical employment data, the GDP contributions of each freight transportation sector were estimated and then turned into the FECO index. The freight industry is defined as sectors whose primary purposes are to provide goods movement services and/or supporting services. These sectors do not produce goods as part of their business operations. Included are truck, rail, air, water, pipeline, warehousing and storage, couriers and messengers, the United States Postal Service (USPS), other freight transportation and government services.

Results

- In 2010, the freight industry supported 116,100 for-hire jobs in total. Nearly 70,000 people were directly hired by the industry which helped sustain an additional 48,000 workers in various sectors. The job multiplier is 1.70, meaning that every 100 jobs in freight transportation supported an additional 70 jobs in other sectors.
- The industry generated the direct GDP of $4.9 billion, which is nearly 90% of the GDP generated by the entire Maryland transportation sector in 2010 (about $5.5 billion).
- The trucking industry is the largest freight sector, accounting for roughly 30% of the employment, 29% of the employee compensation (including all wages and benefits), and 28% of the GDP generated/supported by the entire freight industry.

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- The ripple effects of the water and port sector are much higher than other sectors. While accounting for only 3% of the total freight industry employment in 2010, nearly 17% of the total job impacts, over 15% of the total employee compensation (including all wages and benefits), and 16% of the total GDP, are attributable to water and port services.
- The impact of government spending related to freight industry activities was determined to be critical. Every Maryland state employee working on freight tasks sustained nearly two jobs in other supporting industry sectors.

Results: FECO Index

- The aggregate FECO index parallels Maryland's GDP and the national freight transportation service index (TSI), indicating the usefulness of the index as a performance measure representing the freight industry's contribution as a whole. During the study period, the freight industry's economic activity in Maryland shared a similar cycle to the state economy and national freight transportation service cycles.
- The evidence of modal competition between truck and rail was observed. Their trends and the magnitude of the changes are generally moving in opposite directions.
- The water and port sector is the only sector whose contribution to Maryland's economy constantly increased during the study period.

Results: Implications for Implementation

- A stringent definition of the freight industry allowed the current study to clearly depict a picture of the freight industry's economic contribution to the Maryland economy. The findings will help decision makers and Marylanders understand the role that each freight mode plays.
- The study methodology can be reproduced annually to review the performance of the freight industry as a whole and each modal sector separately.
- The Morgan State team could provide assistance in updating the index and impact study. The methodology can be further refined with additional data collection such as a survey of freight dependent industries.

Report Information

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Link to final report: http://www.roads.maryland.gov/OPR_Research/MD-15-SHA-MSU-3-5_Measuring-the-Economic-Contribution-of-the-Freight-Industry_Report.pdf