## Intermodal Productivity and Goods Movement - Phase 2

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Increasing globalization and changes in technology and business practices are resulting in dramatic increases in the volumes of international trade. While these higher trade volumes are a boon to many segments of the economy, they are straining the capacity of the infrastructure systems designed to handle them. As a result, serious landslide congestion problems are occurring at U.S. cargo transfer hubs, primarily at seaport terminals and rail terminals. The increase in landslide congestion at cargo hubs threatens to raise the transportation cost of goods moving through them, thus potentially impeding regional economic competitiveness.

This phase of the study analyzed the landslide congestion at marine container terminals, terminal gate operations and truck waiting costs (actual costs and social costs). The project team conducted a detailed onsite survey at several marine container terminals of the Port Authority of New York/New Jersey. Using system approach and queuing models, the analysis reveals the seriousness of terminal gate congestion and the social costs resulting from such congestion.



The movement of goods along the intermodal chain is a complex process involving many competing interests. The study concluded that there is no single solution for expediting the process, but a solution addressing the needs of all participants involved is desirable. Improved gate productivity is a win-win situation for all parties involved. It enhances all parties' performance, improves competitiveness and helps reduce overall costs. Key recommendations included increasing the gate operating hours, and adding computerized gate processing, automated document processing, and computer character recognition capabilities.

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