Impact Assessment of the Regulation of Heavy Truck Operations

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The main objective of this project was to evaluate the impact of New York State's divisible-load permit system for heavy trucks in terms of benefits and costs to society. Under this system, New York State has allowed a fleet of approximately 12,800 power units to operate above the federal limits on gross vehicle weights and axle loads. The system has eleven permit categories corresponding to number of axles, weight limits, and statewide or downstate geographic area of operation. The primary cost is increased pavement damage, while the primary benefit is reduced transportation costs for the trucking industry and the secondary benefits are to the state's economy resulting from this reduction. Seasonal benefits and costs for several levels of departure from the federal weight regime were evaluated to assess the optimum weight limit under a simplified system based on ratios of the federal limits.

Truck operators were surveyed to obtain information about driving and waiting times, changes in axle loadings, and vehicle and trucking company characteristics. Pavement damage was estimated from the data collected using an ASHTO formula. To estimate the primary economic benefits, it was assumed that the load transported by each truck would be transported by the same truck on the same route but with more trips, if necessary, to obey federal weight limits.

The primary economic benefits of the permit system were found to substantially exceed its costs and the greater the departure from the federal limits the more the benefits outweighed the costs. The results of this study strongly support the continuation of the New York State divisble-load permit system.

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