

JOINT TRANSPORTATION RESEARCH PROGRAM

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Impact of HB-1481 on Indiana's Highway Revenue Generation, Asset Degradation, Modal Distribution, and Economic Development and Competitiveness

Introduction

The State of Indiana seeks to establish and enforce regulations and policies designed not only to protect the highway infrastructure from undue deterioration, but also to enhance highway safety and mobility without placing an undue burden on the trucking industry's operations and the economy. As required by the House Enrolled Act (HEA) 1481, INDOT adopted Emergency Rules regarding these items, which became effective January 1, 2014. In response to the HEA requirements, INDOT commissioned a study to evaluate the impacts of overweight divisible load permits on revenues, asset consumption, alternative transportation modes, Indiana's economic development, and economic competitiveness relative to other Midwestern states. HEA-1481 requires INDOT to use the results of this impact study to inform the setting of the final rules.

For each of these tasks, the study carried out a review of the existing literature to document the experiences of other agencies that have passed similar laws, drew upon theoretical relationships that help measure the impact type in question, developed qualitative and quantitative methodologies for the impact assessment or used existing frameworks, collected data for application to the methodology, and interpreted the findings.

Three different fee structures were considered: pre-HEA-1481 fee structures that were in place prior to HEA-1481; Interim Policy fee structures that were in place between June 1, 2013 and December 31, 2013; and the Emergency Rules that took effect January 1, 2014 and superseded the preceding fee structures. The study quantified the impacts of HEA-1481's Emergency Rules fee structure compared to the fee structure in place prior to

HEA-1481. For the Interim Policy, however, the study estimated the impacts of that fee structure on revenue generation, pavement consumption, and bridge consumption, but not for modal distribution, economic development, and competitiveness because the Interim Policy was superseded by the Emergency Rules.

Findings

The results of the analysis indicate that, overall, the overweight commodity divisible permit structure arising from HEA-1481 is not expected to dramatically change the consumption of pavement and bridge assets, but it will lead to a slight increase in the revenue collected per permit and a slight decrease in the gap between overall consumption and overall revenue. However, the gap between revenue and consumption remains significant: for the pre-HEA-1481 and the Emergency Rule periods, the consumption-revenue gaps were estimated as \$33 million and \$30 million, respectively.

From an operations standpoint of mobility and safety, it was estimated that HEA-1481 will have an ambiguous impact due to the twin but opposing effects of traffic impairment and trips reduction associated with overweight vehicles; the net effect depends on the prevailing characteristics of the traffic stream and extent of overweight loading.

Also, using FHWA's Intermodal Transportation and Inventory Cost (ITIC) analysis tool, it was found that HEA-1481 will lead to little or no shift in the modal share across truck and rail, but it will also likely cause a significant shift in the specific configurations of the vehicles used in trucking operations. HEA-1481 is not expected to lead to a change

in the ton-miles of commodity shipments, but is expected to lead to a modest increase in economic development (at least in the long term) by reducing the cost of transporting commodities on highways, which is an essential expenditure item of several major businesses in Indiana.

The study also found that HEA-1481 will result in significant changes in the economic competitiveness of trucking operations in Indiana compared to the pre-HEA-1481 era and relative to other Midwestern states. Due to the nature of annual and multi-trip permits, for carriers who transport either metal or agricultural commodities for only a single trip or a few trips occasionally throughout the year, the analysis found that Indiana's new fee structure results in lower permit fees compared to its neighboring states. However, where a large number of overweight divisible load trips are made within the year, the result of the comparative analysis is dichotomous: (a) vehicles that are loaded and configured to yield more than 2.4 ESALs will incur high permit costs if they operate in Indiana compared to states that have blanket annual fees, and (b) vehicles with multi-trip permits in Indiana and are loaded and configured to yield less than 2.4 ESALs irrespective of the gross vehicle weight will incur far lower permit costs compared to neighboring states due to the ESAL credits offered by Indiana's new permitting structure. Also, the report discusses other aspects besides the permit cost of Indiana's overweight permit fee structure and permitting system that further enhance the state's competitiveness relative to other Midwestern states.

Overall, this study shows that HEA-1481 helps protect Indiana's highway pavement and bridge infrastructure by providing incentives for less-damaging loading behavior, reduce the gap between permitting revenue and overweight consumption of infrastructure, foster a modest increase in economic output associated with agricultural and metal commodities, increase the economic competitiveness of trucking operations relative to other states, and generally contribute to a more industry-friendly environment for economic development in Indiana.

Implementation

INDOT is required to deliver the HEA-1481 study by December 31, 2014. This will precede the adoption of final rules for the issuance, fee structure, and enforcement of permits for overweight divisible loads; the fee structure of permits for loads on extra heavy duty highways; and the fee structure of permits for overweight loads. INDOT adopted the Emergency Rules regarding these items, as required by HEA-1481, on December 26, 2013, effective January 1, 2014. HEA-1481 requires INDOT to implement the results of this impact study to inform the setting of the final rules.

A core group of persons at INDOT and INDOR, under the advisement of FHWA, can further define and select implementation strategies to identify and remove any obstacles to implementation. The principal mission of this implementing panel will be to work with the legislature to develop the final rules based on the results of this impact study. The panel could also make recommendations related to important issues not directly addressed by this study, such as accelerating the process for permit approvals.

Recommended Citation for Report

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