

AN ASSESSMENT OF THE ENFORCEMENT OF TRUCK SIZE AND WEIGHT LIMITATIONS IN TEXAS

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SUMMARY REPORT 241-6F(S)
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The Texas system of vehicle load limitation laws and fees has evolved directly out of the critical role the motor transport industry plays in this state. Almost two-thirds of all Texas communities depend entirely upon trucks for service; 98 percent of the fresh fruits and vegetables and 99 percent of the livestock are transported to principal markets by trucks.

The nation began to recognize the correlation between motor vehicle size and weight and road condition and repair/maintenance costs as far back as 1913. By 1929, Texas had joined with other states and enacted its first law regulating maximum allowable motor vehicle size and weight. As the Texas highway system grew, and emphasis shifted from construction to maintenance and rehabilitation, this area of concern assumed a position of major consideration on the part of transportation planners and administrators. Transportation professionals have long felt that strict enforcement of motor vehicle size and weight laws will help reduce motor vehicle size and weight violations and heavy truck accidents, and contribute to a reduction in highway maintenance and rehabilitation costs.

The primary purpose of Report 241-6F was to study and discuss the economic impact on the state of Texas made by the movement of oversize-overweight trucks on the state's highways. A 100 percent compliance case was set up in order to provide comparison with actual case data. The study showed that, while the current oversize-overweight movements may save the trucking industry up to 1.4 billion dollars over the next twenty years under current conditions, these movements are estimated to result in only 84 million dollars (accrued to the state) if the current fine and fee structure is maintained. It is recommended that the current fine and fee structure be revised so that violators would pay for their share of the estimated damage to highways. A highway cost allocation study is also recommended.

Discussed in the report are various aspects of motor vehicle size and weight enforcement-related issues, including the background of motor vehicle size and weight laws, related Texas civil statutes,

agencies involved directly or indirectly in enforcement and their functions, and a characterization of the actual oversize-overweight vehicle movements within the state.

A variety of governmental agencies within the state are involved in regulating or enforcing the regulations on motor vehicle size and weight. They are the Department of Public Safety (DPS), the State Department of Highways and Public Transportation (SDHPT), the Office of the State Attorney General, the Texas Railroad Commission (TRC), and the Justices of the Peace or county court system. The report delineates the structures of these bodies and their functions relative to vehicle size and weight regulations.

There are three types of oversize-overweight trucks on Texas highways, operating (a) illegally, (b) legally, with a permit, or (c) under special, separate legislation, as in the cases of ready-mixed-concrete trucks, cotton trucks, and vehicles transporting fertilizer, milk, poles, etc.

The first part of the section characterizing actual oversize-overweight vehicle movements deals with illegal movements. The Texas DPS provided information on the nature of these illegal oversize-overweight operations. The first source was the "Texas Weight" data, which list the disposition of cases filed by the License and Weight officers of the DPS; the second was the "Status of Vehicles Where Cases Filed," by DPS, for the first nine months of 1980. A third source was the "Truck Weight Survey" data for 1980, from the SDHPT. These data were analyzed according to type of violation, monthly frequency, highway class, location, vehicle type, body type, lease status, carrier type, permit category, amount of overweight, disposition, and fine levied.

Data showed that independent truckers are the most frequent violators. Interviews and data also showed that rock, gravel, sand, grain, and log haulers are major violators.

With respect to highway class, approximately 29 percent of all violation cases filed were associated with the interstate highway system, which had the highest rate of violation cases when compared on a per-mile or per-lane-mile basis.

Almost one-third of all cases filed were found on "other main rural highways," which, in Texas, refers to all remaining state system highways that are not included in the interstate highway network or the farm-to-market network. Truck weight survey data, however, show that "other main rural highways" have a higher actual rate of violation (32 percent versus 23 percent on interstate highways). Violations by dump trucks constituted 41.8 percent of all cases filed, while float trucks were responsible for 29.1 percent. There was no significant relationship found between amount of excess gross vehicle weight and amount of fine charged by the judge.

In addition to illegally oversize-overweight carriers, there are those vehicles operating on the Texas highways with legal oversize-overweight permits. Oversize-overweight permits issued by SDHPT, and discussed in the report, were characterized according to permit type, time length of permit, location where permit was issued, and historical trend.

The economic effects of both illegal and legal oversize-overweight movements within the state are partially summarized as follows:

- Increased pavement maintenance and rehabilitation cost due to increased pavement damage;
- Increased highway structure (bridges, culverts, etc.) maintenance and rehabilitation cost due to accelerated damage by oversize-overweight trucks;
- State expenditure to enforce vehicle size and weight laws. These include DPS expenditure for License and Weight Service and SDHPT expenditure for maintaining permit issuance operations;
- Savings to the owner-operators of oversize-overweight trucks from reduced vehicle operating cost; and
- Economic benefits accrued through the issuance of oversize-overweight permits for special truck movements (e.g., concrete beams, mobile homes, etc.).

Conclusions

Benefits to and need for certain currently permitted oversize-overweight movements are

readily apparent. Of primary concern, however, are illegal oversize-overweight movements. As discussed in this report, highway vehicle loads must be limited in order to avoid rapid deterioration of roadways and the consequent high maintenance and rehabilitation costs, which both the SDHPT and, ultimately, the taxpayers must bear.

Hence, size and weight laws should be strictly enforced to insure adequate protection of the state's highway investment. In addition, strict enforcement of size and weight laws leads to a reduction in unfair and illegal competition among the motor carriers. A detailed delineation of recommendations is included in the full report.

KEY WORDS: truck, size, weight, enforcement, motor carrier, tractor/trailer, rural highways, intercity carriers, intra- and interstate commerce, truck laws and regulations.

The research reported here was conducted for the Texas State Department of Highways and Public Transportation.

The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State Department of Highways and Public Transportation. This report does not constitute a standard, specification, or regulation.

There was no invention or discovery conceived or first actually reduced to practice in the course of or under this contract, including any art, method, process, machine, manufacture, design or composition of matter, or any new and useful improvement thereof, or any variety of plant which is or may be patentable under the patent laws of the United States of America or any foreign country.

The full text of Research Report 241-6F can be obtained from Mr. Phillip L. Wilson, State Transportation Planning Engineer; Transportation Planning Division, File D-10R; State Department of Highways and Public Transportation; P. O. Box 5051; Austin, Texas 78763.



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