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A Preliminary Evaluation of the Equity of the Truck Fee and Fine System in Washington

WA-RD 242.1

Final Report: Technical Analysis
September 1991



Washington State Department of Transportation

in cooperation with the
United States Department of Transportation
Federal Highway Administration

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the Equity of the Truck
Fee and Fine System
in Washington**

by

**Kenneth L. Casavant
Department of Agricultural Economics
Washington State University
Pullman, WA 99164-6210**

John F. Conrad, Technical Monitor

Final Report: Technical Analysis

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**Prepared for Washington Department of Transportation and in
cooperation with U.S. Department of Transportation
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DISCLAIMER

The contents of this report reflect the views of the author, who is 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 Washington State Department of Transportation or the Federal Highway Administration. This report does not constitute a standard, specification or regulation.

APPRECIATION

Special appreciation is expressed to Coleen McCracken who undertook the initial 1989 survey and developed much of the legislative history, and to Karol Hughes who performed the detailed telephone survey in 1990 and constructed most of the analytical tables and figures contained herein. The report was improved by the critical reviews of Barry Diseth, Chuck Chappel, Jerry Lenzi and especially Gary Ray. Obviously, all errors of commission or omission are the responsibility of the author.

Executive Summary

A Preliminary Evaluation of the Equity of the Truck Fee and Fine System in Washington

A contributing factor to the deterioration of our nation's highways is the damage associated with overloading (loads above the legal weight limit) of vehicles on these roads. A complex system of fines and fees (penalties and permits) has been legislated to control or recapture the damage caused by overloading on the highways. The overall purpose of this study was to evaluate the effectiveness and equity of the existing motor vehicle permit and penalty structure of the state of Washington. The study approach used a review of literature, a national mail and telephone survey, an analysis of economic incentives to overload and a pavement damage function to achieve this purpose.

Summary

Efficiency in a overweight fee and fine system entails recovering pavement damages, because it is economic to overload, or forestalling pavement damage that is more socially costly than the private benefits of overloading. Equity is concerned with designing a system that relates magnitude of damage by a particular firm (or overload factor) to the penalty or fee paid by the perpetrator of that damage.

The damage caused by weight can conceptually be captured by a power function of the 3rd or 4th degree. The economic incentive to overload can be viewed as either the cost savings realized by eliminating some truck mileage to move a certain volume or the value of the extra load defined as the rate received per unit times the number of extra

(overlegal) units carried. The cost per ton mile of operating a truck, divided by realized payload of the vehicle, gives a straightforward estimate of the per unit cost savings of each extra unit. If the economic incentive is lower than the damage caused, the fees/fine should be set equal to the economic incentive because eliminating the economic incentive will eliminate the damage. If the damage is less than the economic incentive, the fee/fine should be set equal to the damage; this recovers the damage caused by the overload while still allowing the trip to proceed.

The national survey of all 50 states plus Puerto Rico and Washington, D.C. provided a wealth of information on political activity and studies, philosophy, and statutory limits. During the 1983-1988 time period 13 bills were introduced (6 successful) to raise weight limits on interstate highways and 29 bills were introduced (18 successful) to raise non-interstate highway limits. Seventy studies on this and closely related issues had been completed and an additional 50 studies were underway in 1989. Legal weight limits have undergone increases in many of the states, understandably converging towards the Federally mandated levels, with some identifiable "grandfather" exceptions. The structure underlying the permits to carry loads over the statutory limit has varying characteristics among the states. The two most common structures were a fixed cost, regardless of the amount of overload, or a specific cost schedule based on the range of overweight. A significant number of exemptions or special permits were found in the survey. A detailed examination of the Pacific Northwest states of Washington, Oregon, Idaho and Montana found treatments similar to the nation.

The national survey, supplemented by the June, 1991, telephone review, gave precise descriptions of the fees and fine structures in all 50 states. Many states had the same fee for various overweights with fee value for a 30-mile movement ranging from \$5 to \$160, with \$18.90 in Washington. Fines, for the same weight/distance combination varied from \$100 to \$25,675, with \$450 in Washington. Only 15 states have a fee structure that incorporates distance. Washington's fines are below the 4 state average only at the heavier overload level.

The history of weight limits, fees and fines in the state of Washington received special attention in the study. It was established that, although fees were increased by 40 percent in 1990, they are still substantially below, in nominal terms, the levels of the late 1960s, except for a 300 mile movement. At the lighter overload levels there has been an increase in those fees over the 43-year period. The relationship between fees and fines was significantly changed in 1959, with fines increasing dramatically. This relationship is still maintained in 1991, even with the 40 percent increase in fees in 1990.

When fees and fines are adjusted for inflation the overwhelming conclusion is the fee values have been significantly eroded. Relative to the administrative costs or road damage reconstruction costs this revenue is quickly and comprehensively losing ground.

The main thrust of the study was to contrast the Washington fee and fine structure to the damage function and the economic incentive to overload. Loaded mile costs of \$1.21, when divided by the payload of 25 tons, yielded a ton-mile cost (savings) of \$.0484. This was compared to a modified 4th power damage function. In all cases the economic incentive was smaller than was the damage to roads, although given the

preliminary nature of these estimates, the two variables are quite similar at the lower overweight figures. The Washington fee, at the shorter distance, more than eliminated any economic incentive for the trucker to overload for the smaller weights. As the distance increases the existing Washington fee does seem to track the economic incentive quite well, capturing most of that economic incentive (cost savings) and probably eliminating the damage that would have occurred. It does appear that, with a small adjustment to supplement the 40 percent increase in 1990, the Washington legislature could eliminate much of the road damage.

The fee structure is only functional if truckers use fees because the alternative of fines is too expensive. If the "capture" rate is only 10 percent, then a nominal fine of \$950 would only experience a \$95 net (expected) fine (fine amount times the probability of receiving a citation) contrasted, in this example, to fees of \$189, economic incentive of \$218 and road damage of \$744.

Washington's fee magnitude is slightly above the average of Washington, California, Idaho and Oregon at most levels and is significantly so for the higher levels. The fine level is above the average for the four states at the lower weight overloads but is significantly below the average at the higher levels.

Conclusions

This research has allowed the design of an appropriate fee and fine structure for the state of Washington. Calibrating the structure to reflect the results indicated above would produce a system that is equitable (large damages or economic incentives pay large fees or fines) and effective (damage is eliminated or compensated for by revenue

to the state). But this is a theoretical relationship that has serious problems when implementation in the institutional format of Washington is attempted.

Assumptions of the above system redesign are: 1) the fines are effective 100 percent of the time and 2) revenue generated by fines go directly to repair the damaged pavement. These assumptions are institutionally incorrect because: 1) there may be a capture rate in Washington of 10 percent or less (no studies or experiences currently exist to document the actual performance), 2) the revenue returned from the fines does not go to the road fund but is deposited in the Public Service Education Account (PSEA), and 3) local courts determine the actual fine and usually local court costs are subtracted so the net return to the state is even lower. This suggests research into the effectiveness of the court system versus, e.g., an administrative fine procedure with hearings, as in other states, might be useful. Similarly, if the funds recovered continue to go into the PSEA rather than specifically to the road fund, the goal of the fee and fine system might be to eliminate all overweight trips rather than capture the cost of road damage.

This project was not designed as an enforcement evaluation research effort. But more work needs to be done in the area, particularly as to determining the extent of the overloads, both in number and magnitude. Therefore, regardless of the present incidence of overloads, it is recommended that the enforcement effort and success must be increased. Since increased fines would encourage truckers to pay fees (or risk larger fines) and discourage overloading, that increased revenue should be dedicated directly to the weight enforcement effort. Similarly increased research and educational efforts with

local courts and magistrates should identify to these entities the benefits to society, local and state, of an effective and equitable fee and fine system in the state of Washington.

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Introduction

The transportation system serving the producers and consumers of the state of Washington is an effective, efficient and productive system. It has aided past and present economic development, increased financial returns to firms and decreased the costs of consumption items to Washington citizens. An integral part of that system, some would say the integral part, has been the highway and road system, both rural and urban. This highway system, even as it continues to expand in some areas, is experiencing deterioration of its infrastructure. This degradation arises because of many reasons: the age of the infrastructure, increased traffic volumes, heavier vehicles, different vehicle configuration, etc. One contributing factor to the deterioration of highways is the damage associated with overloading (loads above the legal weight limit) of vehicles on these roads.

In 1913 the state of Washington was one of three states to use weight limit restrictions to protect the investment in highway pavements and bridges. Twenty years later all states, realizing the direct relationship between vehicle weight and road damage, found it necessary and beneficial to introduce weight limits. This was followed, as the Federal Interstate Highway System was developed, with Federal limitations on weight and length in 1956. (For an excellent discussion of the development of state and federal weight limit regulations, see Chapter 2 of *Truck Weight Limits* by the Transportation Research Board, 1990).

A complex system of fines and fees have been legislated in the nation, with a great deal of variation among states, to control or recapture the damage caused by

overloading on the highways. But, this fine structure may or may not be effective in controlling the damage to roads of such activity. The penalty charges collected for a particular payload may either not be sufficient to recover the damage associated with the extra-legal weight movement or may not be large enough in magnitude to deter the trucker from overloading.

In Washington, as in other states, truck firms may be pressured by economic forces to maximize payload and minimize per unit costs, thus increasing the incidence of overloading. Presently, little information on the benefits to trucking firms of overloading is available. The recent Truck Weight Limit study (p. 140) did identify costs of \$16,250 to the trucker for traveling 12,500 miles with a 20,000 lb. overload versus \$19,950 for carrying the same amount of freight legally. Some general information on the impact of different overload magnitudes, by road composition, is available to Washington enforcement officials.

Theoretically, the truckers' willingness to overload (demand for overloading) is a function of decreased per unit cost (economic benefits) and the fee that must be paid to legally overload or the assessment of the risk of the price (penalty or fine) paid for the activity. The degree of risk, as will be discussed later, is a function of the probability of being "captured" (cited) by weight enforcement officers.

When benefits to truckers are greater than costs (price), overloading will occur and probably increase, with attendant increases in road deterioration. Conversely, loss to society occurs whenever the premature damage to roads (costs to repair) is greater than the revenue (fee or fine received). The basic problem is to determine the effectiveness

and equity of the Washington fine/fee structure relative to the goal of controlling damage to the roads. Notice the goal is not to minimize the damage because some damage, when paid for by the truckers, does contribute a positive economic impact to the economy and society. Critical variables include the financial impacts on highways of overloads, the decision-making process of trucking firms and the fee/fine structure that will produce a cost-effective control of damage to the highways.

This issue is not a simple one nor an inexpensive one. Appendix D of the Truck Weight Limit study estimated that, depending on assumed weight overloads, eliminating illegally overloaded axles could save \$160 to \$670 million per year. Truckers provide a critical, very important service to our economy. They are flexible, responsive and efficient providers of value. Certain industries, such as wholesale distributing and manufacturing rely on trucks for 90 percent of their shipments. As U.S. and Washington businesses compete more and more in the world market, and as inventory (just-in-time) and import policies change, the flexibility of motor carriers will become even more crucial. Thus, there is a tenuous balance between the need to protect the infrastructure supporting the motor carrier industry while not nullifying some of the necessary quality of service characteristics of this mode.

Further, the need for reasonable and appropriate controls on overloading is supported by most trucking firms, those who simply do not overload and are stringent in following appropriate weight regulations. The cost savings, mentioned earlier, from overloading can result in a competitive disadvantage to those firms not overloading. As a result, the American Trucking Associations, the National Truck Weight Advisory Council

(NTWAC), and other representatives of the trucking industry favor strong enforcement of truck weight laws (Truck Weight Limits, p. 141).

The general problem being analyzed in this report has not gone totally unnoticed by academic and government researchers. In the state of Washington much work on the impacts of grain transportation changes, especially rail line abandonment and multiple-car rail rates, has previously received attention (Casavant and Lenzi). Findings identified damage to roads of increased traffic, including seasonal periods when road limits had been decreased to reflect the environment. However, no specific findings dealing with overloading, neither incidence of, economic reason for nor magnitude of damage, were produced.

Texas has developed a new technique of enforcing vehicle size and weight limits, because of the high incidence of overloads in the state. Texas files civil suits against trucking firms found to be flagrant and consistent violators of weight laws and enjoined their overweight operation. The state was then able to recover damages from these firms, on a contempt of court basis, related to the firm's overweight citation history.

The study reported in this publication reflects a combination of engineering, economics and managerial decision-making, regulatory basis, political science, judicial interpretation, economic development, etc. Subissues of the overall research effort deal with: allocation of paid fees and fines, enforcement effectiveness, repayment, elimination of damage. Yet, it must be remembered that the savings of overloading realized by truckers are, in a competitive situation, returns that are realized by the shipping public as well. The forms of measurement of the elements in the issue (and utilized in this

study) include a historical review of Washington's fee/fine structure, a comparison to the structures of all 50 states, the benefit/cost ratio of overloading to truckers and the relationship of the fine/fee structure to road damage imposed on the infrastructure.

Objectives

The overall purpose of this study was to evaluate the effectiveness and equity of the existing motor vehicle permit and penalty (fee and fine) structure of the state of Washington. Specific objectives were to:

- 1) develop a conceptual approach to evaluating the equity (fee and fine versus damage imposed) of the truck fee and penalty structure,
- 2) review the existing truck fine and fee system in the state of Washington as to goals and structure,
- 3) determine the structure and goals of other state systems and determine recent changes in those systems,
- 4) preliminarily determine impact on highway pavements of differing overload weights moved for different distances,
- 5) review and evaluate the benefit/cost situation of overloading for individual owner-operators or truck firms,
- 6) develop recommendations for the structure and enforcement of the Washington fee and fine system.

Study Approach

The study was accomplished in five related analysis tasks, in some cases sequential, in others concurrent. The initial activity was a detailed review of literature (state-of-the-art) of studies, findings, and methodologies used to evaluate the issue. From this review a conceptual approach for the study was tested and finalized. This was accompa-

nied by a detailed review of the Washington historical development of the truck fee and fine system, and the perceived goals of that system, by compiling statutes and interviewing officials during late 1988 and 1989.

The majority of the national information reported in this study was compiled by a survey of all 50 states, plus Puerto Rico and Washington D.C., accomplished in 1989 (see Appendix A). The survey questionnaire was sent to the appropriate agencies (Departments of Transportation, Departments of Highways, etc.) and was followed up by telephone calls to urge timely completion, to fill in any item non-responses, or to clarify definitions or interpretations.

The questionnaire was structured with three objectives. The existing state statutes (and implementation) as to weight limits, permits and penalties was received from the respondents. Subissues of tolerance, offloading requirements, and divisible versus non-divisible loads were part of this section. A second section of the questionnaire dealt with the political or agency interest in the issue by requesting information on number and types of related studies currently or recently undertaken by the agency as well as the degree of political interest in the issues, indicated by the number of bills, successful and non-successful, introduced in a given recent time period. The degree of political activity was also specifically detailed relative to changes in penalties or permits for overloads. A third segment of the survey was a subjective assessment, by the questionnaire respondent, of the relationship between permits and fines and road damage, as well as whether their state structure discourages truckers from overloading. A final outcome of the

survey was a state by state inventory of current statutory weight limits, overloading permits and fines.

This survey was initially finalized in mid-1989. The FHWA's overweight vehicle report, distributed in June of 1990, indicated some changes in fee and fine levels and applications had occurred since the early response to the survey in late 1988. Accordingly, a third task in the study was to conduct an exhaustive (all 50 states) telephone questionnaire in March-June of 1991 to update the responses. The resultant structures, as of June, 1991, are reported in great detail in Appendix B. Numerous footnotes are used to provide specific interpretations of sometimes unclear statutes.

The fourth and fifth analytical tasks of the study, discussed in considerable detail in later sections, dealt with the methodologies of determining the economic incentive (cost or rate savings) to overloading by carriers and the damage caused by various combinations of weight/distance movements by truckers. The economic incentives were based on various movements, via a typical axle configuration, of a generic trucking firm. The damage function analysis relied on a modification of the standard pavement deterioration function developed by the American Association of State Highway Officials (AASHTO), with price (cost) estimates derived from previous studies in Washington using the Pavement Management Systems (PMS) of WSDOT (Casavant and Lenzi) to generate preliminary estimates of expected or typical damage values, inflated to 1990 levels.

Arising from these multiple tasks within this research effort was an understanding of the real world implementation of the fee and fine schedule evaluated and recom-

mended in this report. As such, some finding relative to enforcement efforts, allocation of fees and fines, tolerances, etc. are included in the final recommendations.

Conceptual Framework

The goal of this study was to examine the efficiency and equity of the Washington overweight fee and fine system. Efficiency entails recovering pavement damages, because it is economic to overload, or forestalling pavement damage that is more socially costly than the private firm benefits of overloading. Equity is concerned with designing a system that relates magnitude of damage by a particular firm (or overload factor) to the penalty or fee paid by the perpetrator of that damage.

Casavant and Lenzi reviewed the technical relationship underlying the performance of roadways. There are five major elements that affect the performance of roadways. These are the underlying soil (the subgrade), the pavement structure, traffic loads, traffic volume, and the environment. Pavements are generally divided into two broad types: flexible and rigid. Flexible pavement often consists of an asphalt-type surface layer built on a base and resting on a compacted subgrade or the natural soil foundation. Rigid pavements are composed of a Portland cement concrete slab placed on a subgrade or subbase. The essential difference between the two is the manner in which they distribute the load over the subgrade. Asphalt passes the force down through the layers directly below the load. Concrete or rigid pavement functions more like a board or plank, spreading the force over a larger area. Rigid pavements generally withstand repetitive loading better than flexible pavements and normally have a longer life cycle between necessary repairs.

The speed of pavement deterioration is affected by the number and type of loadings and the environment, principally the moisture and freeze-thaw cycle which create internal stresses that limit a pavement's life. As the environment causes pavement deterioration, this process can be accelerated by heavy traffic. The heavier that traffic, the more deterioration occurs in a given period of time.

The life of a pavement is directly affected by the pavement design relative to traffic volumes and loads. It is not just the maximum size of a load that is critical, but the number of loads applied to the pavement that is important. Loads are evaluated using the common measures of Kips (1,000 lbs.) and ESALs. ESALs are equivalent single-axle loads rated at 18,000 lbs. such that all loads, both single and tandem (dual) axles, are expressed in the number of ESALs that will pass over a pavement during its design life cycle.

The force inflicted on a pavement depends on gross vehicle weight (GVW), per axle weight and the distance between axles (measured by the bridge formula), or axle configuration. The general relationship between vehicle axle weight and damage is shown in Figure 1. What is quickly evident is the increasing impact felt at the higher weights and, as shown in Figure 2, the impact of axle configuration. The overall impact of the increased weight, especially overweight, and traffic volume on pavement life is shown in Figure 3. The shaded area reflects the increased maintenance and reconstruction costs necessary to achieve the desired road life (Casavant and Lenzi). It is this impact that is generated by the increased incidence of ESALs and environmental effects on the state highways and county roads in the state of Washington.

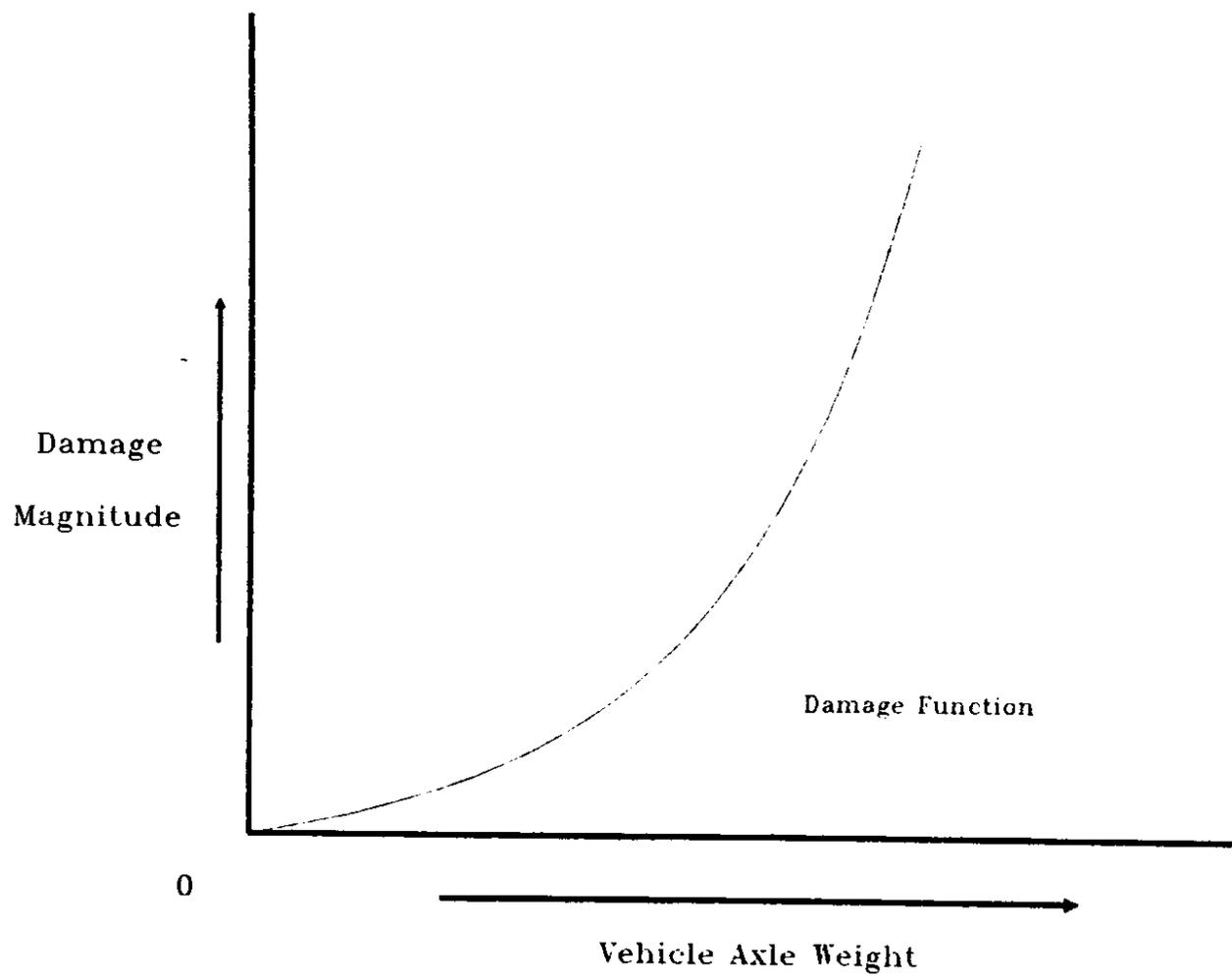


FIGURE 1. Roadway Damage and Vehicle Axle Weight

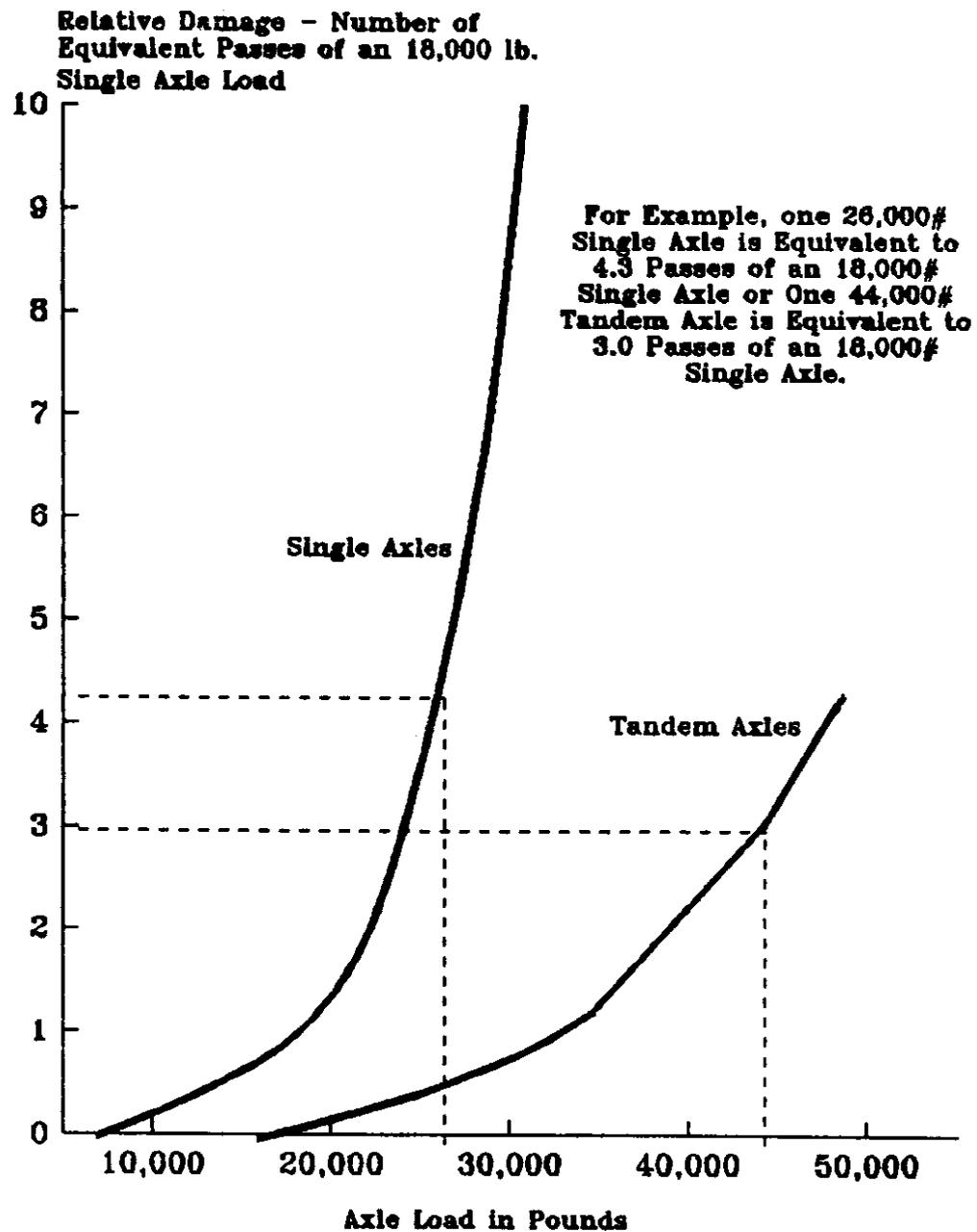
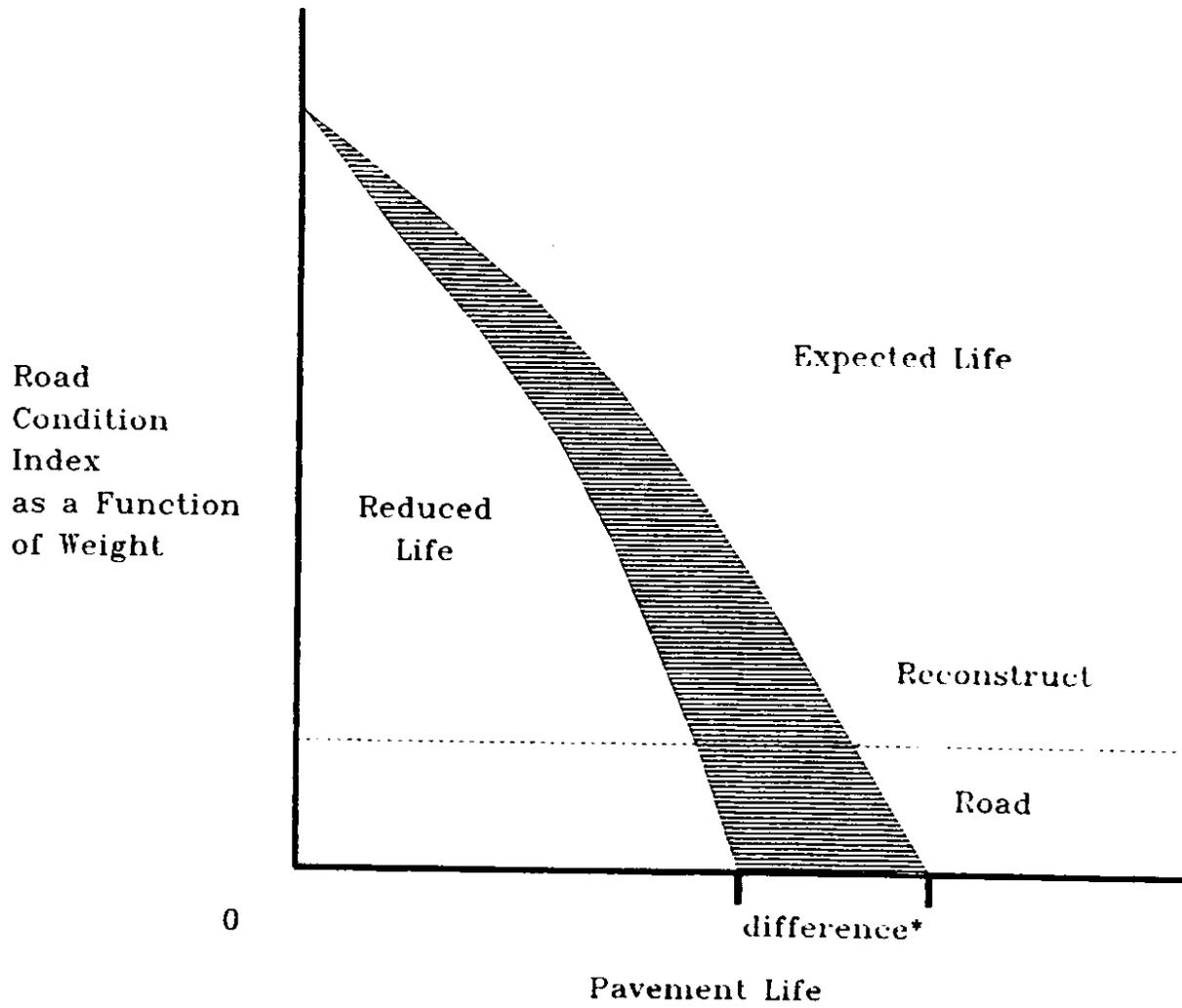


FIGURE 2. Typical Relative Damage Caused by Different Sized Axles -- From the AASHO Road Test

SOURCE: Brown, Jones L., et al.



* Premature and unprogrammed pavement wear.

FIGURE 3. Weight and Pavement Life

Given the form of this damage function it is conceptually reasonable, with the goals mentioned earlier, that the fine and fee structure should be responsive to weight, distance and axle configuration. The system should generally reflect the 4th power function of the AASHTO (used to be AASHO) tests with differing base points for single axle, tandem axle and the bridge formula. The relationship identified in Figure 4 is conceptually a fee or fine structure that would produce equity in application.

The economic incentive to overload can be conceptually viewed as either the cost savings realized by eliminating some truck mileage to move a certain volume or the extra value of a load defined as the rate (tariff) received per unit times the number of extra (overlegal) units carried (incidentally, higher valued commodities can be expected to generate higher rates). The cost savings become a lower bound conservative estimate of the benefits to a trucker of overloading while the value of the extra revenue becomes an upperbound on such benefits. Obviously, if there is no profit margin, the two estimates in the long run would be identical. Conversely, in the short run variable costs of a load can be expected to be lower than the average; thus cost savings (benefits) are smaller from that short run perspective. Finally, the cost per ton mile, divided by realized payload of the vehicle, gives a straightforward estimate of the per unit cost savings of each extra unit on a truck per movement.

Given these relationships the resultant conceptual structure is that identified in Figure 5. Consider the following:

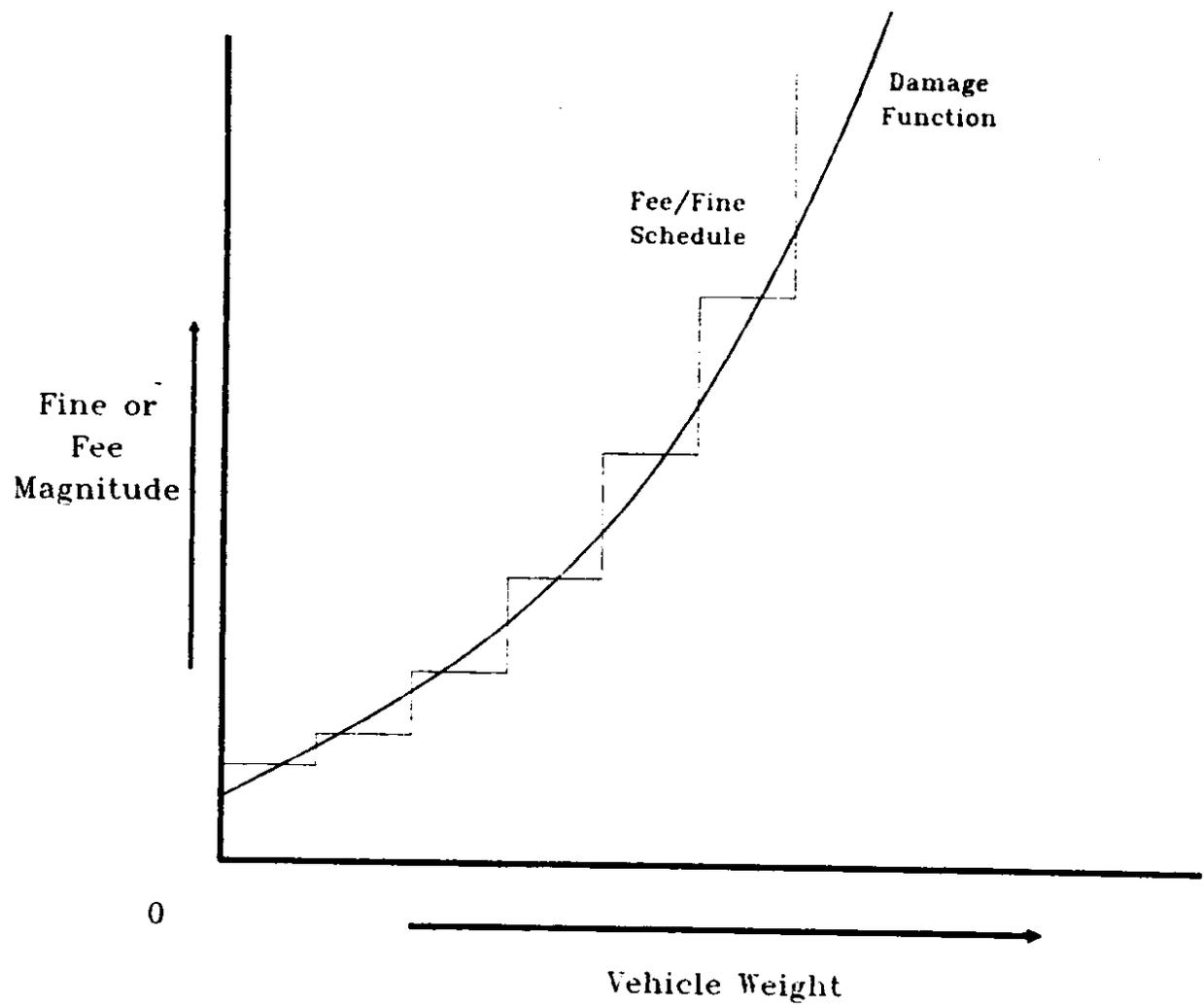


FIGURE 4. Conceptual Fee/Fine Structure

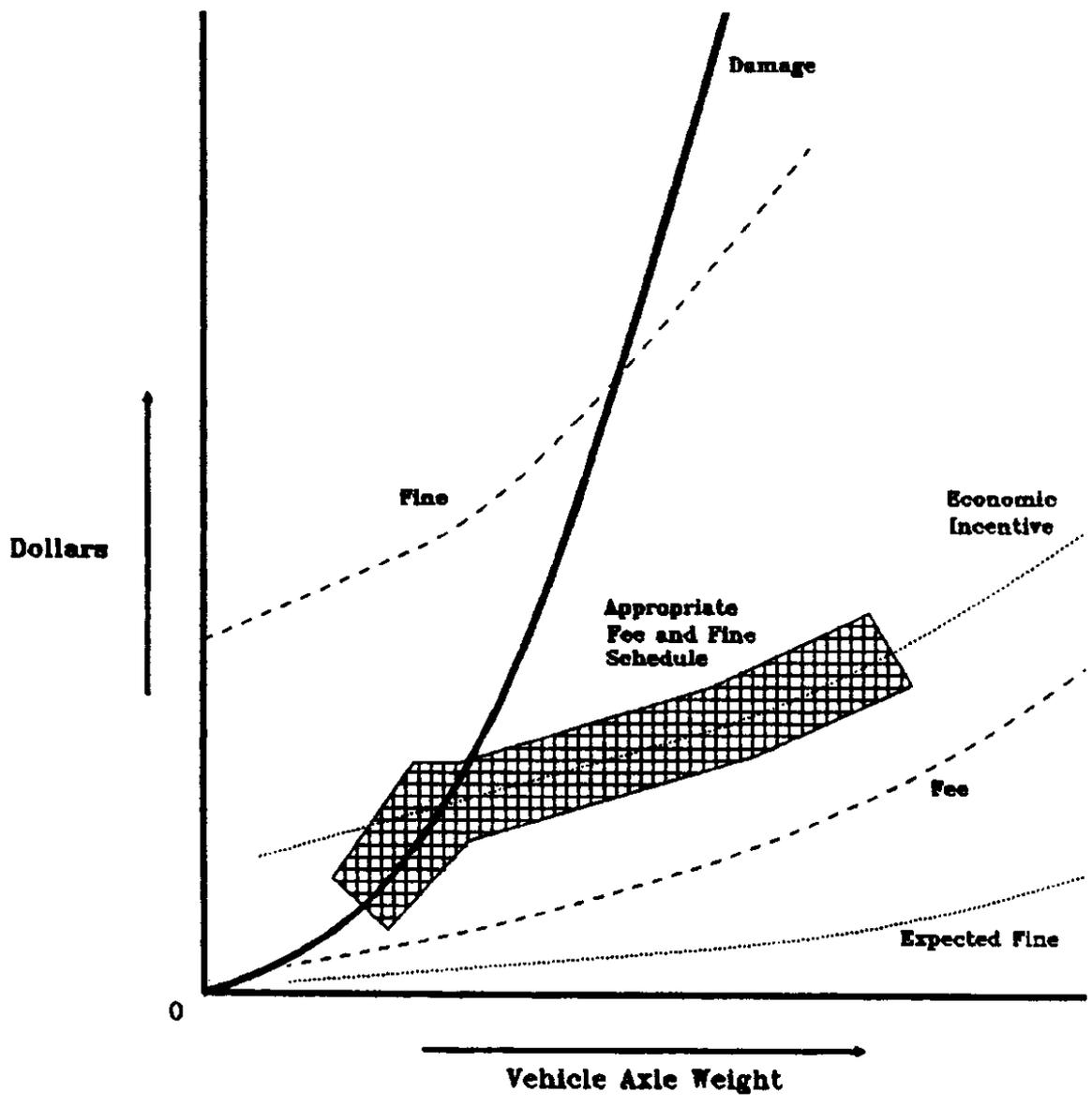


FIGURE 5. Conceptual Relationship

IF: D is the damage magnitude at a given weight,
 EI is the economic incentive (savings) at a given weight,
 and F is the Fee or Fine at a given weight.

Then: the operative fine or fee (OF) at each weight should be:

- if $D > EI > F$, then OF should be increased to EI
- if $D < EI > F$, and $F < D < EI$, then OF should be increased to D
- if $D < EI > F$ and $F < D < EI$, no change should occur
- if $D < EI < F$, then OF should be decreased to D
- if $D > EI < F$, whether F is $> D$ or not, OF should be decreased to EI .

It is not necessary to set OF equal to the D when D is greater than EI , eliminating the economic incentive will eliminate the occurrence of damage. Conversely, if EI is greater than D , the OF should be set to recover the damage caused by the overloading while still allowing the trucker, and society, to capture the economic benefits of overloading. Figure 5 is a graphical depiction of that relationship.

Included in Figure 5 is an expected fine function, reflecting the real world experience of enforcement success. Differing estimates exist as to the percentage of overloaded vehicles that are actually "captured" and cited but in most cases the estimates range from 1 percent to 20 percent (this unknown is a suggestion for future research later in this report). From the private trucker's viewpoint, if the potential fine for a given load is F , and only one out of 10 loads receives a citation, then the expected fine to be used in decisions about overloading is $F \cdot$ (probability of capture) or, for example, if probability is 10%, the expected fine is $F \cdot (.10)$ or $F/10$; thus, instead of a \$200

paper fine, the expected fine is only \$20. This disparity and variability of the enforcement success becomes crucial to the effectiveness of the fine/fee relationship.

Underlying this conceptual approach is the practical side of the truck weight legislation, its goals and its history. A brief review of the history and structure of weight limits, permits and penalties serves to build the foundation for the conceptual approach (for a full treatment, see *Truck Weight Limits*, Chapter 2, and Terrell and Bell).

Truck Weight Legislation

In the early phase of road development in the U.S., government involvement was concentrated at the state level. As mentioned earlier, the first laws limiting the dimensions and weight of motor vehicles were enacted in 1913. However the majority of states did not adopt such legislation until after the passage of the Federal Aid Highway Act of 1916. All states had some limitations by 1931 and in 1933 the last state enacted a weight limit.

The American Association of State Highway and Transportation Officials (AASHTO) began to recommend policies on dimensions and weights in 1932. From its first policy, AASHTO has encouraged states to adopt uniform regulations.

Direct Federal involvement in the regulation of truck size and weight did not begin until the Federal-Aid Highway Act of 1956. This act contained the first federal size and weight limits, establishing the following maximum limits on Interstate highways:

vehicle width:	92 inches
axle weight:	18,000 lbs. for a single axle
	32,000 lbs. for a tandem axle
gross vehicle weight:	73,280 lbs.

These limits followed the 1946 AASHTO recommendations. The Federal government still played a limited role since these laws were permissive -- they were a maximum limit. States could enforce lower limits on Interstates and any limits on non-Interstate roads. These limits were qualified by a "grandfather clause", which permitted higher state weight or wider width limits, that existed at the time the Federal law was passed to remain in effect.

One of the features of the 1956 Act was that it established the Interstate System with 90% funding and created the Highway Trust Fund as the financing mechanism for the Federal Aid highway program. In return for the Federal Government's promise of financial assistance, states were required to enact laws which recognized the Federal limits. The 1956 Highway Act did not extend to protect the federal non-Interstate system. States could establish higher weight limits on Federal-Aid primary, secondary, and urban roads.

There was no action taken to increase Federal control of truck size and weight between 1956 and 1973. Prompted by the 1973 energy crisis, the 1974 Federal-Aid Highway Amendments revised federal limits permitting 80,000 pounds (lbs.) gross weight and introducing a formula (the federal bridge formula) that controlled the maximum weight allowed on any group of axles as a function of the number of axles and their spacing. The 1974 Act required that each state certify annually to the Secretary of Transportation that it was regulating and enforcing all state size and weight laws on the Federal-Aid System. The Federal-Aid Highway Act of 1976 allowed states to permit busses up to 102 inches wide on Interstates.

Again these revisions were permissive, applying only to Interstate highways; more liberal preexisting state limits were permitted, and states were allowed to choose limits lower than the federal ones. As a result of these permissive revisions, a wide variety of weight limitations remained in effect.

By 1981, all but three states had adopted the federal gross vehicle weight limit of 80,000 lbs. Arkansas, Illinois and Missouri retained lower gross limits, which formed a barrier to long-haul operations of 80,000 lbs. trucks. There was also no uniformity in allowable axle loads. In the interest of uniformity, the Surface Transportation Assistance Act of 1982 established new federal mandatory weight limits to replace the permissive maximum weight limits. The weight limits were 20,000 lbs. on a single axle load, 34,000 lbs. on a tandem axle, and 80,000 lbs. gross vehicle weight, subject to the federal bridge formula. These limits were the same as the previous law but states were now not allowed to impose lower limits. States were prohibited in setting higher limits than these although the grandfather exemptions of the 1956 and 1974 weight standards were retained.

The 1982 Act also regulated width of vehicles and for the first time contained federal regulations for length and the number of allowable trailers. Vehicles up to 102 inches wide were allowed on federally designated routes. The prior federal law restricted the maximum to 96 inches and applied to Interstates only. The 1982 Act required states to allow trailers 48 feet long on federally designated routes and access routes. There had previously been no federal length limit but this provision overruled semitrailer length limits less than 48 feet (of overall length limits that effectively barred 48-foot

semitrailers) in 35 states of designated routes. States were also required to permit the use of twin trailer trucks on the Interstate and the network of primary roads to be designated by the Secretary of Transportation. The 1982 Act contained the federal legislation that forced states to change their existing size and weight limits and it was the first to apply to some non-Interstate roads. This act created a nationwide network of major routes where trucks following the federal regulations could operate, a network consisting of the entire Interstate system plus other designated roads.

Permit Legislation

Size and weight statutes or regulations specify the maximum allowable dimensions and weights of motor vehicles on the highway systems within a state. In order to legally ship commodities which exceed the maximum legal size or weight, a permit must be obtained before shipping begins.

Permits are not granted for all commodities and, as will be well documented in this report, there are variances in permit operations among states. The primary objectives of permit operations are: (1) to allow and control the shipments of oversize and overweight commodities when this shipment can be justified as being in the best interest of the community, and there is no feasible alternative; and (2) to control such shipments in the interest of (a) the structural integrity of the highway, (b) the safety of all highway users, and (c) the efficient operation of traffic. A third objective, the collection of revenue, can be added to this list (NCHRP 80).

Generally, there are two types of weight control permits: single-trip and multiple trip permits. A single-trip permit covers a single, one-way or round, trip as specified by

the laws in each state. While most states issue single-trip permits which are valid for 3 to 5 days, some are valid for one to two weeks and a few states issue 30-day single trip permits.

Multiple-trip permits cover shipments within a certain period of time, from two weeks to one year. These are usually issued to manufacturers, contractors, and others who frequently need to ship the same type of overlimit load. Generally there are ceiling limits specified by each state in order to control the issuance of multiple-trip permits.

In 1984 almost half of the states limited permits to nondivisible loads. However, for economic reasons, many states now allow overlimit divisible loads to be moved on a permit basis. Grain, other crops, forest products, fuel, and concrete movements that are overweight are often permitted by some states. Not only are there variances in permit operations among states but there are also large differences among states in the way permit fee structures are set up and in the amount and scale of fees charged. These structures vary from a uniform fee (whether for a single- or multiple-trip permit) to a fee schedule based on amount overweight and distance traveled. This report will provide specific details on these structures.

Some desirable criteria for the administration of "routine" permits are (NCHRP 131, p. 44):

- 1) The procedure should not discourage the use of overload vehicles where justified on the grounds of economic development.
- 2) The procedure should be simple and quick so that truckers prefer obtaining a permit rather than operating an overloaded vehicle and risk getting caught.

- 3) The procedure should not encourage the excessive use of overweight vehicles.
- 4) Permit fees should be based on both administrative costs and the costs to the highway system.

Fines Legislation

All states (and Washington D.C.) impose penalties for violating their maximum truck weight regulations. There is a wide variation among states for discouraging overweight violations. These monetary fines vary from very low to severe fines and from a fixed assessment to one that is graduated by the amount and reoccurrence of the overweight violations.

Another deterrent to overweight trucks is mandatory unloading at the scales. This practice is becoming more widespread among states. Unloading practices vary among states. Although unloading is often impractical due to such factors as the shortage of storage space, safety concerns to other motorists, and potential vandalism of the unloaded cargo, this report will detail the popularity of this requirement.

Selected National/Regional Characteristics

The national survey responses provided a wealth of information relating to statutory limits and interpretations, political activity and studies, philosophy, etc. The questionnaire (Appendix A) was structured to provide an historical as well as contemporary perspective on selected sub-issues. Summary tables are utilized in this section with specific data provided in Appendix B.

Political and Research Activity

The issues surrounding weight limits have continued to receive significant legislative attention (Tables 1 and B-1). During the 1983-1988 time period 13 bills were introduced to raise weight limits on interstate highways and 29 bills were introduced to raise non-interstate highway limits, reflecting the acknowledged impact of heavier weights on the deterioration of pavement infrastructure. Many of these bills achieved statutory level with six bills (46%) succeeding in raising interstate weight limits and 18 bills (62%) raising non-interstate weight limits. Noticeable in Table B-1 is the heavy legislative activity of Mississippi in increasing non-interstate limits.

TABLE 1. Legislative Activity, 1983 - 1988

Number of Bills	Introduced		Raised	
	Interstate	Non-Interstate (frequency)	Interstate	Non-Interstate
0	40	33	45	39
1	9	11	6	9
2	2	4	0	2
3	0	0	0	0
4	0	0	0	0
5	0	2	0	1

Underlying legislative attempts to modify weight limits and associated variables is a broad array of studies shedding light on these issues (Tables 2 and B-2). These issues are definitely receiving the attention of researchers and legislatures since about 70 studies had been completed in the 1983-88 time period, with an additional 50 studies

underway at the time of this survey in early 1989. The impact of overweight trucks on pavement and bridge conditions has been evaluated by 24 states, followed by the 19 states that were evaluating weight enforcement problems in these states. The availability of other studies, such as cost allocation, impact of overweight trucks on maintenance costs, economic benefits of overweight truck operations is detailed by state in Table B-2.

TABLE 2. Studies Undertaken, 1983-1988

STUDY TYPE	COMPLETED	UNDERWAY	NONE
User Tax Structure	9	4	38
Benefits and Costs of Heavy Trucking	6	4	41
Economic Benefits of Overweight Trucks	6	1	44
Impact on Pavement	13	11	27
Impact on Maintenance Costs	8	7	36
Weight Enforcement Problems	6	13	32
Cost Allocations	12	5	34
Other	10	5	36

Weight Limits

Legal weight limits have undergone increases in many of the states, understandably converging towards the Federally mandated levels, with some identifiable "grandfather" exceptions (Tables 3 and B-3). The three time periods incorporated in the questionnaire, based on periods of significant Federal/state investment or legislative changes, allow a historical look at this evolution.

TABLE 3. Interstate Weight Limits, Selected Years

	Single Axle			Tandem			Gross Vehicle Weight		
	1956	1982	1988	1956	1982	1988	1956	1982	1988
Mean	19,198	20,344	20,501	32,677	34,869	34,908	71,316	82,262	83,739
Mode	18,000	20,000	20,000	32,000	34,000	34,000	73,280	80,000	80,000

The average single axle limit has climbed steadily, increasing from 19,198 lbs. in 1956 to 20,501 in 1988. Tandem axle weight limits similarly increased but with little change between 1983 and 1988. The gross vehicle weight limit has continued its increase, increasing almost 1,500 lbs. from 1982 to 1988. The most common limits quickly became 20,000, 34,000 and 80,000 lbs. for the single axle, tandem axle and gross vehicle weight limits, respectively, again reflecting the Federal limits.

Twenty five of the states do not have different weight limits for non-interstate than for their interstate highways. Washington, Oregon and Montana had the same limits while Idaho chose to differentiate between interstate and non-interstate roadways.

The weight limits in force for non-interstate roads are detailed in Table B-4 for each state. A specific comparison, over time, is summarized in Table 4 and presented in Figure 6. It is evident that, looking at the respective state averages, non-interstate weight limits are less restrictive than interstate systems and the difference has increased significantly over time, shown by the average gross vehicle weight of 83,739 lbs. versus 87,543 lbs. for the interstate and non-interstate roads, respectively. Interestingly, the importance, and probably frequency, of the single and tandem axle smaller vehicle in local areas is indicated by the slightly lower limit on non-interstate than interstate roads.

TABLE 4. Average Weight Limits, Inter and Non-Interstate, Selected Years

	Interstate			Non-Interstate		
	Single	Tandem	GVW	Single	Tandem	GVW
1956	19,198	32,677	71,316	19,293	32,677	71,238
1982	20,344	34,869	82,262	20,305	35,274	84,836
1988	20,501	34,908	83,739	20,430	35,440	87,543

The weight limit structure legislated by each state does not seem to be a sterile, immovable standard. Various modifications to the weight limit levels, reviewed in the national study, are detailed in Table 5. Specifically information of restrictions (seasonal, etc.), tolerance, and offloading information indicates states do vary in the stringency of application of weight limits. Over 50% (27) of the states did have restrictions on the

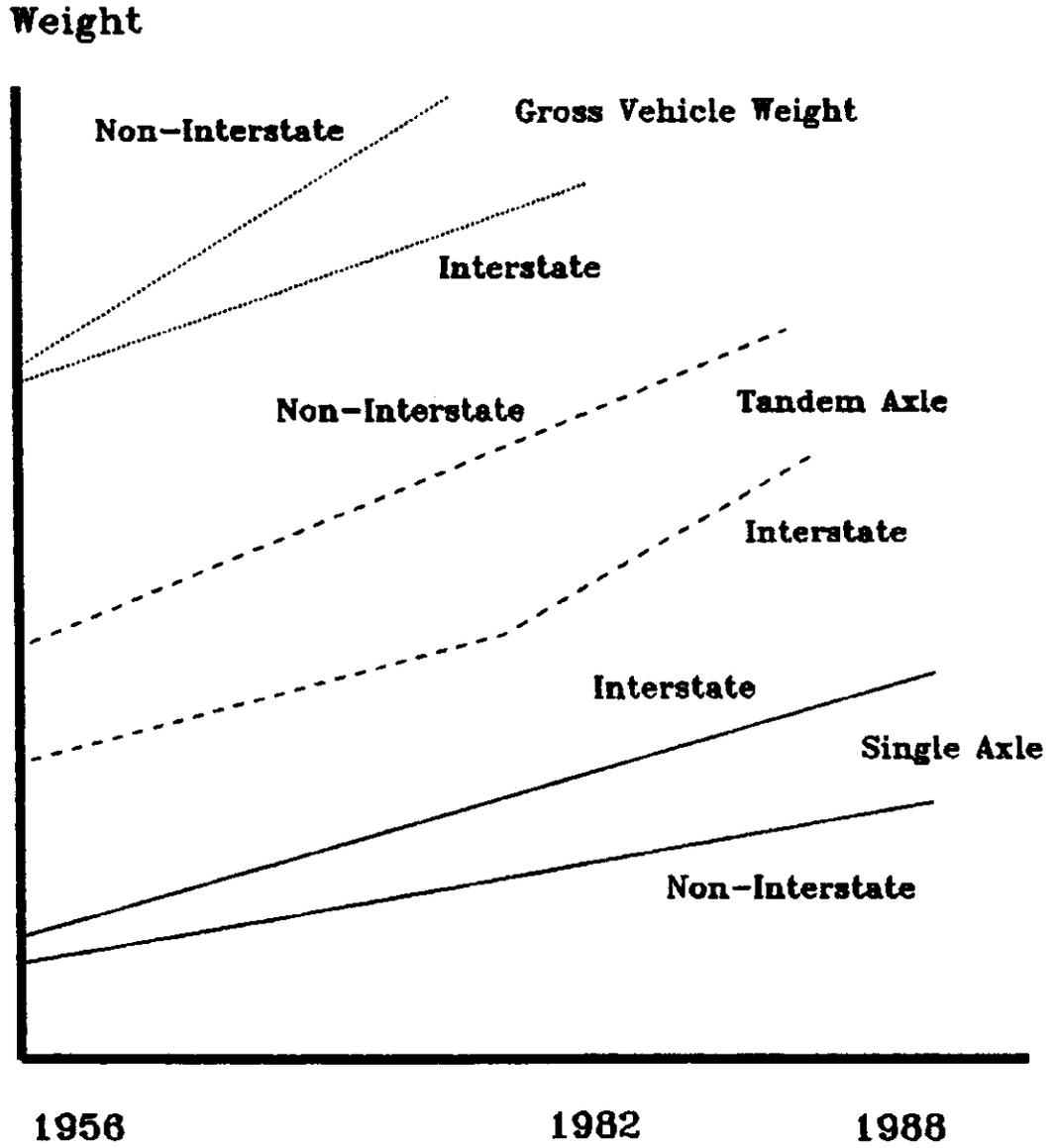


FIGURE 6. Average Interstate and Non-Interstate Weight Limits, Selected Years

TABLE 5. Modifications of Weight Limit, by State

State	Restrictions or Weight Limit	Tolerance												Mandatory OIF-Loading
		Tire Loading			Single Axle			Tandem Axle			GVW			
		%	Lbs.	%	Lbs.	%	Lbs.	%	Lbs.	%	Lbs.			
Alabama	No	0	--	10	--	10	--	10	--	10.0	--	10.0	--	No (A)
Alaska	Yes	0	--	--	1000	--	1000	--	1000	--	1000	--	1000	No
Arizona	No	0	--	1	--	1	--	1	--	1.0	--	1.0	--	Yes
Arkansas	Yes	--	--	0	--	0	--	0	--	0.0	--	0.0	--	No (B)
California	No	--	--	2	--	2	--	2	--	2.0	--	2.0	--	Yes
Colorado	No	--	0	--	500	--	1000	--	1000	--	1000	--	1000	Yes
Connecticut	No	2	--	2	--	2	--	2	--	2.0	--	2.0	--	Yes (C)
D.C.	No	--	0	--	1000	--	0	--	0	--	1000	--	1000	Yes
Delaware	No	0	--	0	--	0	--	0	--	5.0	--	5.0	--	Yes
Florida	Yes	10	--	10	--	10	--	10	--	10.0	--	10.0	--	Yes (D)
Georgia	Yes	--	--	0	--	0	--	0	--	0.0	--	0.0	--	Yes
Hawaii	No	0	--	5	--	5	--	5	--	5.0	--	5.0	--	No
Idaho	Yes	0	--	0	--	0	--	0	--	0.0	--	0.0	--	No
Illinois	No	0	--	--	2000	--	2000	--	2000	--	2000	--	2000	Yes
Indiana	No	--	0	--	0	--	0	--	0	--	0	--	0	Yes

TABLE 5. Cont.

State	Restrictions or Weight Limit	Tolerance												Mandatory Off-Loading
		Tire Loading		Single Axle		Tandem Axle		GVW						
		%	Lbs.	%	Lbs.	%	Lbs.	%	Lbs.	%	Lbs.	%	Lbs.	
Iowa	No	--	--	--	--	--	--	--	--	--	--	--	--	No
Kansas	Yes	0	--	0	--	0	--	0.0	--	0.0	--	--	--	No
Kentucky	Yes	--	0	5	--	5	--	--	--	--	0	--	0	Yes (E)
Louisiana	No	0	--	0	--	0	--	0.0	--	0.0	--	--	--	Yes
Maine	Yes	--	--	--	1000	--	1000	--	1000	--	1000	--	1000	Yes
Maryland	Yes	--	1000	--	1000	--	1000	--	1000	--	1000	--	1000	Yes (F)
Massachusetts	No	0	--	0	--	0	--	0.0	--	0.0	--	--	--	(G)
Michigan	Yes	0	--	0	--	0	--	0.0	--	0.0	--	--	--	Yes
Minnesota	No	10	--	--	1000	--	1000	--	1000	--	1000	--	1000	Yes
Mississippi	No	1	--	1	--	1	--	1.0	--	1.0	--	--	--	Yes
Missouri	No	0	--	0	--	0	--	0.0	--	0.0	--	--	--	Yes
Montana	Yes	0	--	5	--	5	--	5.0	--	5.0	--	--	--	Yes (H)
Nebraska	Yes	--	0	--	0	--	0	--	0	--	0	--	1000	Yes
Nevada	Yes	0	--	0	--	0	--	0.0	--	0.0	--	--	--	Yes
New Hampshire	Yes	0	--	10	--	10	--	5.0	--	5.0	--	--	--	Yes

TABLE 5. Cont.

State	Restrictions or Weight Limit	Tolerance												Mandatory Off-Loading
		Tire Loading			Single Axle			Tandem Axle			GVW			
		%	Lbs.	%	Lbs.	%	Lbs.	%	Lbs.	%	Lbs.			
New Jersey	No	0	--	5	--	5	--	5	--	5	0.0	5	0.0	Yes
New Mexico	No	--	50	--	1000	--	1000	--	1000	--	1000	--	1000	Yes
New York	Yes	5	--	5	--	5	--	5	--	5.0	--	--	--	No
North Carolina	Yes	--	--	--	1000	--	1000	--	1000	--	--	--	--	Yes
North Dakota	Yes	0	--	0	--	0	--	0	--	0.0	--	--	--	Yes
Ohio	No	--	0	--	1000	--	1000	--	1000	--	0	--	0	Yes
Oklahoma	No	0	--	0	--	0	--	0	--	0.0	--	--	--	Yes
Oregon	Yes	0	--	0	--	0	--	0	--	0.0	--	--	--	Yes
Pennsylvania	Yes	3	0	3	--	3	--	3	--	3.0	--	--	--	Yes
Rhode Island	No	--	0	--	0	--	0	--	0	--	500	--	500	Yes
South Carolina	Yes	--	--	10	--	10	--	10	--	10.0	--	--	--	Yes
South Dakota	Yes	--	--	--	--	--	--	--	--	--	--	--	--	Yes
Tennessee	No	0	--	0	--	0	--	0	--	6.0	--	--	--	Yes (I)
Texas	Yes	0	--	0	--	0	--	0	--	0.0	--	--	--	Yes
Utah	Yes	0	--	0	--	0	--	0	--	0.0	--	--	--	Yes

TABLE 5. Cont.

State	Restrictions or Weight Limit	Tolerance										Mandatory Off-Loading
		Tire Loading		Single Axle		Tandem Axle		GVW				
		%	Lbs.	%	Lbs.	%	Lbs.	%	Lbs.			
Vermont	Yes	0	--	10	--	10	--	5.0	--	--	--	No (J)
Virginia	Yes	0	--	0	--	0	--	0.0	--	--	--	No
Washington	Yes	0	--	0	--	0	--	0.0	--	--	--	No
West Virginia	No	0	--	0	--	0	--	0.0	--	--	--	Yes
Wisconsin	Yes	--	--	--	--	--	--	--	--	--	--	Yes
Wyoming	No	0	--	0	--	0	--	0.0	--	--	--	Yes

(A) Our law does not specifically mandate off loading. However, the law says it is unlawful to move an overweight load on a public highway. Therefore, off loading is sometimes required in practice.

(B) Not mandatory, but officer may require off loading.

(C) Over 85,000 lbs. by Connecticut state police policy.

(D) Off loading is required for 6,000 lbs. or more over legal weight.

(E) Not enforced.

(F) Shifting the load does not mitigate the fine for the violation. Shifting may avoid off loading if hauler can reduce below the 5,000 lbs. threshold.

(G) Statute does not specify, therefore load is not entitled to proceed without either a permit or unloading.

(H) Required if the 5% tolerance is exceeded or 7% for livestock.

(I) In some cases.

(J) But enforcement policies do require mandatory off load of 15,000 over limit.

general weight limits due to spring thaw, frost heaves, bridge conditions or road types (see Scott).

The discretionary nature of these weight limits is indicated by the fact that eight states allow some discretion on tire loadings, 25 states have tolerances on single axle weights, 24 on tandem axle loadings, and 25 on gross vehicle weight. Most tire loading tolerances are on a percentage basis, ranging from 1 to 10 percent, with only Maryland and New Mexico using a pound basis. Five and ten percent tolerances on single and tandem axles are quite common with 1,000 lbs. tolerance most used by those electing poundage tolerances. Gross vehicle weight limits variations are mostly commonly tolerated by five percent of the states with the prevalent tolerance being 1,000 lbs. on a poundage basis. Only Illinois, with a 2,000 lbs. tolerance, and Rhode Island with a 500 lbs. tolerance, deviate from the norm.

Mandatory offloading of a shipment when found to be overweight is required by 37 of the responding 51 states (including Washington, D.C.). But, as indicated by some of the footnotes to Table 5, it is evident that the weight enforcement officer has discretion in, and the shipment characteristics can affect, the unloading of the extra legal weight.

Permit Structure

The structure underlying the permits to carry loads over the statutory limit has varying characteristics among the states. As indicated in Table B-6 of Appendix B, the two most common structures were a fixed cost, regardless of the amount of overload, or a specific cost schedule based on the range of overweight. Nine states utilized some form of specific distance related cost basis while eight states chose to use a variable

amount depending on the amount of overload and the specific routes chosen for the movement. No state computed the permit cost after the truck used the route by studying the actual damage related to the movement. Thirty nine of the states relied on only one form of permit basis while eight states used a combination of two structures, usually related to distance and overweight. Only Washington reported using some form of four of the structures.

When asked what the permit rates should cover, 45 states felt the costs of administration and issuance should be recovered. Significantly, only 38 states felt the permits should produce revenue to cover pavement damage. Four states felt the permits should be used to produce revenue for other purposes not related to administrative costs or pavement damage. By far the most common other usage was for bridge damage, with enforcement costs receiving some attention.

It is evident that the legal, political and physical characteristics of some commodities in the different states do receive consideration, resulting in the granting of special permits and/or exemptions (Table B-7). Coal qualifies for exemptions or special permits in six states and petroleum products in three states. The special density characteristics of cement/concrete and excavation haulers results in special treatment in 12 and five states, respectively. The economic importance of farm products and the bulky high density of the movements results in 28 of the states allowing special permits or exemptions to the weight limits. Timber, while having similar characteristics, but not as economically important or prevalent in some states, received special treatment from only 15 of the states. Twenty four states found it useful and appropriate to offer exemptions or special

permits to garbage trucks. Of these commodities, Washington only gives special consideration to garbage trucks and timber movements. It is also interesting to see that New York gave exemptions or permits to every one of the identified commodities and Massachusetts gave dispensation to all but timber.

Assessment of Issues

The questionnaire structure was used to determine the state respondent's subjective assessment of selected issues. These responses, reported in Table B-8, examine legislative intent and actual performance of the fine and fee system for each state. Only five states, all in the east and south, felt the permit structure reasonably covered the costs of road damage caused by those permitted overloads. Three respondents were unsure while 43 felt they did not cover the damage. Footnotes to Table B-8 offer more specific detail as to the state responses.

Similarly, only five states, all in the east and south, felt fines reasonably covered the costs of road damage caused by the overweight loads. Three respondents felt they did not have the information to properly answer the question but 43 states felt fines did not cover related road damage.

It is evident that the assessment of the states as to whether the fine structure economically discourages truckers from overloading varies greatly and generates a lot of interest (note the footnotes to Table B-8). Thirteen of the states did feel truckers were evidently discouraged from overloading, but in different situations and weights. Washington felt the fines are considered a minor cost of doing business and are figured into the

price charged for hauling. Connecticut felt the fines could be a deterrent but getting the judicial system to enforce and impose the fine was another matter.

Regional Evaluation

It was expected that the different economic and political environment of various regions of the U.S. might result in conflicting or at least contrasting approaches to the overweight truck issue (see Table 6 and Figure 7 for states in each region). What was found was a remarkable consistency throughout the nation, with only selected regional variation. Some of the issues reflecting regional differences are summarized in Table 7. Every state has found it necessary or expedient to undertake studies to document or develop policies appropriate to address the problem of overweight trucks. Region 1, the northeast, is the most active, with 21 studies during the six year period, followed by region 6, the south central, with 19 studies. The average number of studies was 13 during the period.

Most regions unanimously varied the amount of the fine in relationship to the amount overweight (Table 7). Only regions 4 and 6, the southern section of the country, had states that chose not to relate fine and amount overweight. More variation is evident among regions when the question of mandatory offloading is considered. Only regions 5 and 8 were unanimous in requiring mandatory offloading of extra legal weight. In region 10, the location of Washington, only 25% of the states required mandatory offloading; the next closest was region 7 where only 50 percent of the states were as stringent.

TABLE 6. States Within Field Regions of the Federal Highway Administration

Region 1	Connecticut Maine Massachusetts New Hampshire New Jersey New York Rhode Island Vermont	Region 6	Arkansas Louisiana New Mexico Oklahoma Texas
Region 3	D.C. Delaware Maryland Pennsylvania Virginia West Virginia	Region 7	Iowa Kansas Missouri Nebraska
Region 4	Alabama Florida Georgia Kentucky Mississippi North Carolina South Carolina Tennessee	Region 8	Colorado Montana North Dakota South Dakota Utah Wyoming
Region 5	Illinois Indiana Michigan Minnesota Ohio Wisconsin	Region 9	Arizona California Hawaii Nevada
		Region 10	Alaska Idaho Oregon Washington

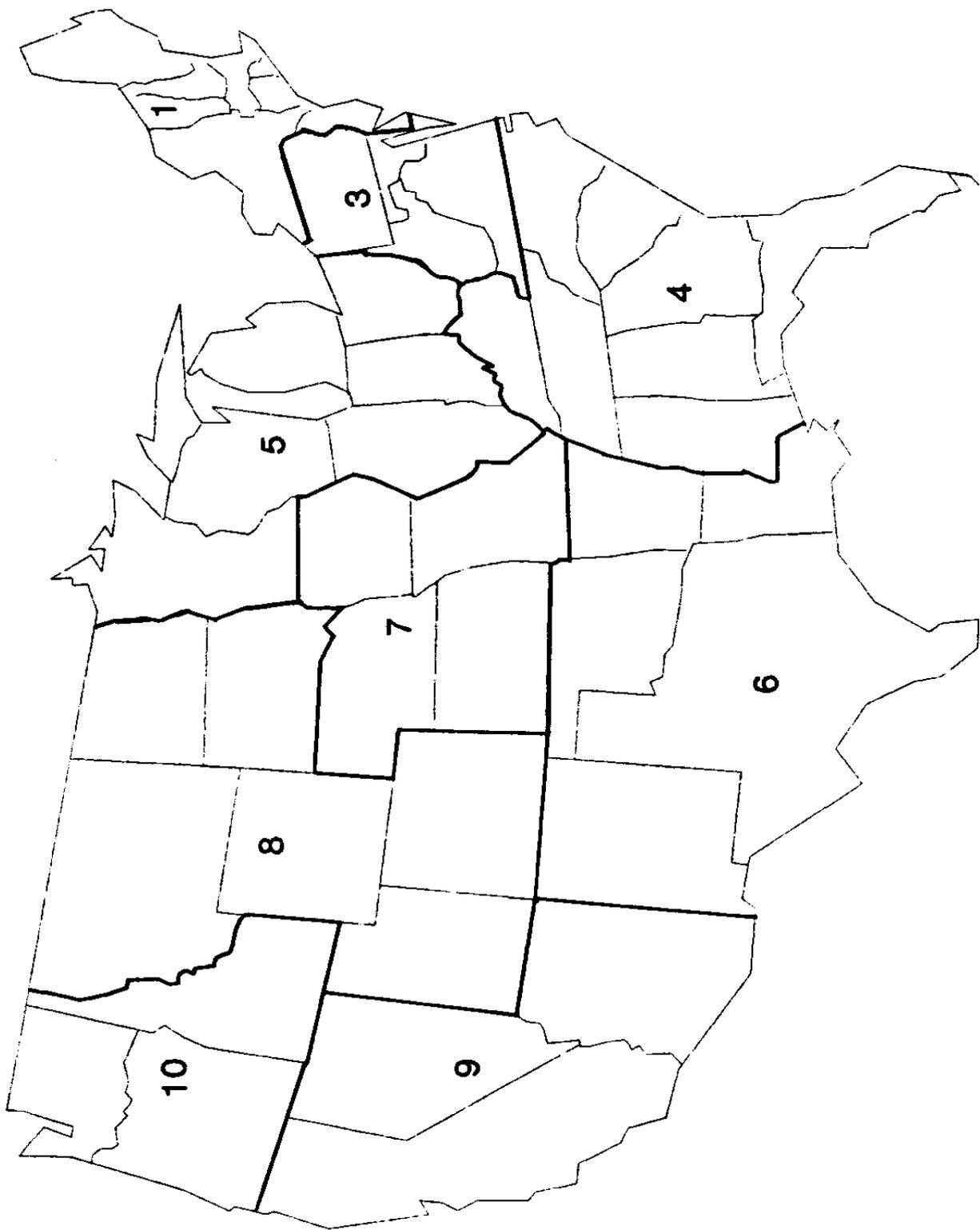


FIGURE 7. Field Regions of the Federal Highway Administration

TABLE 7. Selected Regional Characteristics

REGION	NUMBER OF STUDIES	FINES VARY BY AMOUNT OVERWEIGHT % YES	MANDATORY OFFLOADING % YES	FINE DISCOUR-AGES % YES	PERMITS COVER DAMAGES % YES	FINES COVER DAMAGES % YES
1	21	100	71	38	25	25
3	8	100	83	50	17	17
4	5	88	88	25	13	13
5	23	100	100	17	0	0
6	19	80	80	50	20	20
7	10	100	50	0	0	0
8	12	100	100	25	0	0
9	10	100	75	0	0	0
10	10	100	25	0	0	0

The ability or effectiveness of fines to discourage truckers from overloading was perceived differently among the states. Three regions, 7, 9 and 10, unanimously felt the fines were ineffective in achieving this goal; the highest percentage of any states in a region feeling the fines were effective was 50 percent, in regions 3 and 6.

Finally, the states and regions were consistent between fees and fines covering road damages. If a region's states felt fees didn't cover the damage, it responded exactly in the same manner to the fine question. Only region 1 felt fees/fines cover damages to the extent of 25 percent of its states; most other regions were significantly less.

Pacific Northwest States

In attempt to compare Washington to its surrounding neighbors an analysis was conducted of selected responses by the Pacific Northwest (PNW) region: Washington, Oregon, Idaho and Montana. Responses revealing the political and economic environment and statutory implementation are detailed in Table 8.

Washington lead the way with two bills dealing with non-interstate weight limits being introduced and passed during the 1983-1988 time period. Idaho was the least successful in passing introduced bills; none were passed and one each on interstate and non-interstate weight limits had been introduced. Oregon had been the most active in studies, undertaking or completing four during the time, followed closely by Montana with three studies dealing with the general issue.

Gross vehicle weights were increased in a fairly similar fashion, from 1956 to 1988, for both interstate and non-interstate highways. Only Idaho lagged to a small

TABLE 8. Pacific Northwest States Selected Responses

	IDAHO	MONTANA	OREGON	WASHINGTON
# of Bills Introduced				
Interstate	1	1	0	0
Non-Interstate	1	0	1	2
# of Bills Successful				
Interstate	0	1	0	0
Non-Interstate	0	0	0	2
Studies Undertaken	1	3	4	1
GVW Weight Limits				
Non-Interstate				
1956	73,280	76,800	73,280	72,000
1982	76,800	80,000	80,000	80,000
1988	105,500	80,000	80,000	80,000
Interstate				
1956	73,280	76,800	73,280	72,000
1982	80,000	80,000	80,000	80,000
1988	80,000	80,000	80,000	80,000
Tire Loading Lbs./In.				
1956	800	--	550	600
1982	800	600	550	600
1988	600	600	600	600
Permits (1987)				
Single Non-Divisible				
Issue?	Yes	Yes	Yes	Yes
#	5,530	16,464	13,500	27,531
Single Divisible				
Issue?	No	No	Yes	No
#	0	0	50	0
Multiple Non-Divisible				
Issue?	Yes	No	Yes	Yes
#	518	0	5,080	150
Multiple Divisible				
Issue?	Yes	No	Yes	Yes
#	9,583	0	14,000	3,798

TABLE 8. Cont.

	IDAHO	MONTANA	OREGON	WASHINGTON
Permits Should Cover:				
- issuance and administration	Yes	No	Yes	Yes
- road damage				
- other purposes	Yes	No	Yes	Yes
	No	Yes	No	No
Special Exemptions or Permits				
Coal	Yes	No	No	No
Petroleum Products	No	No	No	No
Cement/Concrete	No	No	No	No
Excavation Materials	No	No	No	No
Farm Products	Yes	Yes	No	No
Timber	Yes	Yes	No	Yes
Garbage Trucks	No	No	Yes	Yes
Sand/Gravel	Yes	No	No	No
Livestock	Yes	No	No	No

degree behind its PNW neighboring states, a phenomenon witnessed also in the decrease of allowable tire loadings over time.

The permitting process seems the most liberal in Oregon, where all single, multiple, non-divisible, divisible combinations are allowed (probably related to their weight-distance tax). Montana appears more restrictive, allowing only single, non-divisible permits to be obtained. Also, Montana was the unique state to suggest permit revenue should be used for other purposes, and that it should not cover the damage caused by the permitted load. Washington, Idaho and Oregon felt similarly that permit revenue should be enough to cover administrative costs and road damage ascribed to the movement.

Individual state personalities are also evident when examining the types of special permits or exemptions to the general provisions of weight limits. Idaho has special status for five of the commodity groups, followed by Montana and Washington with two

special commodity treatments. Timber is exempted in all states except Oregon while coal is only treated specially in Idaho.

Analysis of Fees and Fines in the United States

The national survey, supplemented by the April-June telephone review, produced specific and very detailed information about the United States' structure and application of fees and fines for the overloading of trucks. This current compilation, the most timely existing, to the knowledge of the author, is summarized in Casavant's "1991 State Fee and Fine Regulations for Overweight Vehicles -- A National Survey", the companion volume to this report.

The complex, and sometimes confusing, data and regulations detailed in Casavant are compiled in Tables 9 to 11 to allow an easier evaluation of the results of the varying fees and fine structures. The footnotes to these tables are quite important and provide the specific assumptions necessary to determine the value of each state's fine or fee applications while also revealing the complexity of the calculations and value determinations. The pounds of excess weight are based on weight over the statutory 80,000 lb. limit, as indicated in the table, and each 1,000 lbs. reflects a Kip. Tables 9 to 11 reveal the fee and fine values for a 30 mile trip, a 100 mile movement and a 300 mile movement. This range encompasses most of the typical movements in Washington, the focus of the analysis.

As indicated in Table 9, many states have the same fee for varying overweights, although 30 Kips often causes an increase in the fee charged. The value of the fee for a

TABLE 9. Fees and Fines for 30-mile Trip: Various Weights

STATE	POUNDS OF EXCESS WEIGHT								NOTES
	3,000		5,000		10,000		30,000		
	Fee	Fine	Fee	Fine	Fee	Fine	Fee	Fine	
1. Alabama	\$ 10	\$ 100	\$ 10	\$ 100	\$ 10	\$ 100	\$ 10	\$ 100	A
2. Alaska	20	150	20	250	20	500	20	1,500	
3. Arizona	25	500	25	1,000	25	1,000	25	1,000	
4. Arkansas	24	90	32	250	52	500	132	1,500	
5. California	15	85	15	175	15	1,500	15	6,000	B
6. Colorado	40	15	40	60	40	615	40	3,035	C
7. Connecticut	15	146	15	406	15	975	15	7,312	
8. D.C.	19	100	19	100	19	400	19	1,600	
9. Delaware	15	98	20	144	30	604	60	1,754	D
10. Florida	24	150	24	250	24	500	28	1,500	
11. Georgia	5	38	5	98	5	318	5	1,318	
12. Hawaii	5	160	5	250	5	560	25	580	
13. Idaho	15	25	15	40	15	80	16	100	E
14. Illinois	20	165	20	475	30	1,500	(*)	4,500	F
15. Indiana	31	120	31	400	31	1,000	38	3,000	
16. Iowa	10	85	10	200	10	600	10	1,600	G
17. Kansas	5	150	5	250	5	1,000	5	3,000	
18. Kentucky	60	90	60	350	60	900	60	2,700	H
19. Louisiana	30	60	30	150	30	400	70	1,600	
20. Maine	3	40	3	70	4	145	11	975	
21. Maryland	30	150	30	250	30	850	30	3,250	I
22. Massachusetts	15	120	15	200	15	400	15	2,000	J
23. Michigan	5	180	5	600	5	1,500	5	6,000	K
24. Minnesota	Axles	310	Axles	710	Axles	1,910	Axles	5,910	L
25. Mississippi	10	90	10	500	15	1,000	45	3,300	
26. Missouri	27	300	27	500	27	1,000	57	3,000	M
27. Montana	20	50	20	70	20	160	20	2,000	
28. Nebraska	10	25	10	100	10	200	10	1,000	
29. Nevada	8	60	8	100	8	600	8	2,400	
30. New Hampshire	9	100	9	100	9	100	12	100	N

TABLE 9. (Cont.)

STATE	POUNDS OF EXCESS WEIGHT								NOTES
	3,000		5,000		10,000		30,000		
	Fee	Fine	Fee	Fine	Fee	Fine	Fee	Fine	
31. New Jersey	20	60	25	100	35	200	85	900	O
32. New Mexico	\$ 15	\$ 25	\$ 15	\$ 75	\$ 15	\$ 425	\$ 15	\$ 500	P
33. New York	40	75	40	200	40	700	40	2,700	
34. North Carolina	5	80	5	160	5	660	5	2,660	
35. North Dakota	10	30	10	200	10	800	10	6,000	O
36. Ohio	15	130	15	150	15	330	15	1,060	
37. Oklahoma	25	154	35	254	60	504	160	524	
38. Oregon	12	30	13	150	13	800	Axles	3,900	R
39. Pennsylvania	16	150	17	750	20	2,250	29	8,250	S
40. Rhode Island	20	375	20	675	20	5,675	20	25,675	
41. South Carolina	10	105	10	225	10	745	10	845	T
42. South Dakota	20	250	20	850	22	2,600	28	7,600	
43. Tennessee	17	127	19	227	23	477	38	1,477	U
44. Texas	30	100	30	100	30	100	30	100	V
45. Utah	30	200	30	300	30	550	30	1,550	W
46. Vermont	20	30	20	50	20	200	20	3,000	X
47. Virginia	13	60	13	100	13	500	13	1,500	
48. Washington	14	140	14	200	14	350	19	950	
49. West Virginia	22	20	23	25	26	100	38	900	Y
50. Wisconsin	20	110	20	300	20	750	45	2,150	Z
51. Wyoming	15	35	15	60	15	160	18	760	
AVERAGE	18	118	19	261	21	780	31	2858	

ASSUMPTIONS: A GVW violation is assumed though axle violations may be more realistic for several states, especially for a GVW of 110,000 lbs. Other assumptions are as follows: The vehicle is a 5-axle combination carrying a non-divisible load with no permit; the vehicle is registered in-state; the road is an interstate highway with a legal limit of 80,000 lbs.; it is the first overweight conviction; and there are either no weight tolerances or they have already been accounted for. In addition, fines for violation of a registered weight are not considered.

Fines are calculated for all states, thus it is assumed that a load cannot be made legal and is not eligible for a permit after the violation is discovered. Conversely, the vehicle load and vehicle configuration is assumed to be eligible for a permit.

TABLE 9. (cont.)

NOTE: 1) Surcharges, court costs, and other charges are not included in calculations, however they are noted where applicable.

2) Fees and fines are rounded to the nearest dollar.

3) Minimum base fees and fines are assumed when relevant.

4) 'Axles' indicates the fee is based on axle weights.

*According to Illinois overweight permit fee categories, no permit is issued.

STATE NOTES:

A. Minimum fine.

B. Penalty assessment is not included

C. A 37% surcharge on fines is not included.

D. Minimum base fine. An 18% surcharge and court costs are not included.

E. Fines do not include surcharge.

F. Court costs and county fees are not included.

G. Court costs and 30% surcharge are not included.

H. Court costs are not included.

I. Court costs are not included.

J. Surcharge is not included.

K. Court costs and ticket tax are not included.

L. Criminal and civil fines. Credit is not given for the criminal portion.

M. Court costs are not included.

N. A 20% penalty assessment is not included.

O. These fines are not for a registration violation.

P. Court costs are not included.

Q. Vehicle may be eligible for \$5 interstate permit fee.

R. Mileage tax rates are included in fees.

S. Additional surcharges and costs are not included.

T. The new fine schedule is used. Minimum criminal penalty.

U. Court costs are not included. Minimum base fine.

V. Minimum fine.

W. Assume Category VI permit.

X. Surcharge is not included.

Y. Surcharge is not included.

Z. A 20% penalty assessment and other costs are not included.

TABLE 10. Fees and Fines for 100-mile Trip: Various Weights

STATE	POUNDS OF EXCESS WEIGHT								NOTES
	3,000		5,000		10,000		30,000		
	Fee	Fine	Fee	Fine	Fee	Fine	Fee	Fine	
1. Alabama	\$ 10	\$ 100	\$ 10	\$ 100	\$ 10	\$ 100	\$ 10	\$ 100	A
2. Alaska	20	150	20	250	20	500	20	1,500	
3. Arizona	25	500	25	1,000	25	1,000	25	1,000	
4. Arkansas	24	90	32	250	52	500	132	1,500	
5. California	15	85	15	175	15	1,500	15	6,000	B
6. Colorado	40	15	40	60	40	615	40	3,035	C
7. Connecticut	15	146	15	406	15	975	15	7,312	
8. D.C.	19	100	19	100	19	400	19	1,600	
9. Delaware	15	98	20	144	30	604	60	1,754	D
10. Florida	24	150	24	250	24	500	28	1,500	
11. Georgia	5	38	5	98	5	318	5	1,318	
12. Hawaii	5	160	5	250	5	560	25	580	
13. Idaho	15	25	16	40	16	80	18	100	E
14. Illinois	45	165	45	475	80	1,500	(*)	4,500	F
15. Indiana	55	120	55	400	55	1,000	80	3,000	
16. Iowa	10	85	10	200	10	600	10	1,600	G
17. Kansas	5	150	5	250	5	1,000	5	3,000	
18. Kentucky	60	90	60	350	60	900	60	2,700	H
19. Louisiana	45	60	45	150	45	400	130	1,600	
20. Maine	3	40	3	70	5	145	11	975	
21. Maryland	30	150	30	250	30	850	30	3,250	I
22. Massachusetts	15	120	15	200	15	400	15	2,000	J
23. Michigan	5	180	5	600	5	1,500	5	6,000	K
24. Minnesota	Axles	310	Axles	710	Axles	1,910	Axles	5,910	L
25. Mississippi	10	90	10	500	15	1,000	45	3,300	
26. Missouri	27	300	27	500	27	1,000	57	3,000	M
27. Montana	20	50	20	70	20	160	20	2,000	
28. Nebraska	10	25	10	100	10	200	10	1,000	
29. Nevada	8	60	8	100	8	600	8	2,400	
30. New Hampshire	9	100	9	100	9	100	12	100	N

TABLE 10. (Cont.)

STATE	POUNDS OF EXCESS WEIGHT								NOTES
	3,000		5,000		10,000		30,000		
	Fee	Fine	Fee	Fine	Fee	Fine	Fee	Fine	
31. New Jersey	20	60	25	100	35	200	85	900	O
32. New Mexico	\$ 15	\$ 25	\$ 15	\$ 75	\$ 15	\$ 425	\$ 15	\$ 500	P
33. New York	40	75	40	200	40	700	40	2,700	
34. North Carolina	5	80	5	160	5	660	5	2,660	
35. North Dakota	10	30	10	200	10	800	10	6,000	O
36. Ohio	15	130	15	150	15	330	15	1,060	
37. Oklahoma	25	154	35	254	60	504	160	524	
38. Oregon	23	30	23	150	25	800	Axles	3,900	R
39. Pennsylvania	20	150	23	750	30	2,250	60	8,250	S
40. Rhode Island	20	375	20	675	20	5,675	20	25,675	
41. South Carolina	10	105	10	225	10	745	10	845	T
42. South Dakota	20	250	20	850	25	2,600	45	7,600	
43. Tennessee	23	127	28	227	40	477	75	1,477	U
44. Texas	30	100	30	100	30	100	30	100	V
45. Utah	50	200	50	300	50	550	50	1,550	W
46. Vermont	20	30	20	50	20	200	20	3,000	X
47. Virginia	20	60	20	100	20	500	20	1,500	
48. Washington	14	140	14	200	14	350	63	950	
49. West Virginia	26	20	30	25	40	100	80	900	Y
50. Wisconsin	20	110	20	300	20	750	45	2,150	Z
51. Wyoming	15	35	15	60	20	160	60	760	
AVERAGE	21	118	21	261	24	780	38	2858	

ASSUMPTIONS, NOTE, (*) and STATE NOTES: Please see Table 9.

TABLE 11. Fees and Fines for 300-mile Trip: Various Weights

STATE	POUNDS OF EXCESS WEIGHT								NOTES
	3,000		5,000		10,000		30,000		
	Fee	Fine	Fee	Fine	Fee	Fine	Fee	Fine	
1. Alabama	\$ 10	\$ 100	\$ 10	\$ 100	\$ 10	\$ 100	\$ 10	\$ 100	A
2. Alaska	20	150	20	250	20	500	20	1,500	
3. Arizona	25	500	25	1,000	25	1,000	25	1,000	
4. Arkansas	24	90	32	250	52	500	132	1,500	
5. California	15	85	15	175	15	1,500	15	6,000	B
6. Colorado	40	15	40	60	40	615	40	3,035	C
7. Connecticut	15	146	15	406	15	975	15	7,313	
8. D.C.	19	100	19	100	19	400	19	1,600	
9. Delaware	15	98	20	144	30	604	60	1,754	D
10. Florida	24	150	24	250	24	500	28	1,500	
11. Georgia	5	38	5	98	5	318	5	1,318	
12. Hawaii	5	160	5	250	5	560	25	580	
13. Idaho	16	25	17	40	18	80	24	100	E
14. Illinois	95	165	95	475	180	1500	(*)	4500	F
15. Indiana	125	120	125	400	125	1,000	200	3,000	
16. Iowa	10	85	10	200	10	600	10	1,600	G
17. Kansas	5	150	5	250	5	1,000	5	3,000	
18. Kentucky	60	90	60	350	60	900	60	2,700	H
19. Louisiana	100	60	100	150	100	400	310	1,600	
20. Maine	3	40	3	70	5	145	11	975	
21. Maryland	30	150	30	250	30	850	30	3,250	I
22. Massachusetts	15	120	15	200	15	400	15	2,000	J
23. Michigan	5	180	5	600	5	1,500	5	6,000	K
24. Minnesota	Axles	310	Axles	710	Axles	1,910	Axles	5,910	L
25. Mississippi	10	90	10	500	15	1,000	45	3,300	
26. Missouri	27	300	27	500	27	1,000	57	3,000	M
27. Montana	60	50	60	70	60	160	60	2,000	
28. Nebraska	10	25	10	100	10	200	10	1,000	
29. Nevada	8	60	8	100	8	600	8	2,400	
30. New Hampshire	9	100	9	100	9	100	12	100	N

TABLE 11. (Cont.)

STATE	POUNDS OF EXCESS WEIGHT								NOTES
	3,000		5,000		10,000		30,000		
	Fee	Fine	Fee	Fine	Fee	Fine	Fee	Fine	
31. New Jersey	20	60	25	100	35	200	85	900	O
32. New Mexico	\$ 15	\$ 25	\$ 15	\$ 75	\$ 15	\$ 425	\$ 15	\$ 500	P
33. New York	40	75	40	200	40	700	40	2,700	
34. North Carolina	5	80	5	160	5	660	5	2,660	
35. North Dakota	10	30	10	200	10	800	10	6,000	Q
36. Ohio	15	130	15	150	15	330	15	1,060	
37. Oklahoma	25	154	35	254	60	504	160	524	
38. Oregon	52	30	54	150	59	800	Axles	3,900	R
39. Pennsylvania	29	150	38	750	60	2,250	150	8,250	S
40. Rhode Island	20	375	20	675	20	5,675	20	25,675	
41. South Carolina	10	105	10	225	10	745	10	845	T
42. South Dakota	20	250	20	850	35	2,600	95	7,600	
43. Tennessee	38	127	53	227	90	477	240	1,477	U
44. Texas	30	100	30	100	30	100	30	100	V
45. Utah	50	200	50	300	50	550	50	1,550	W
46. Vermont	20	30	20	50	20	200	20	3,000	X
47. Virginia	40	60	40	100	40	500	40	1,500	
48. Washington	21	140	21	200	42	350	189	950	
49. West Virginia	38	20	50	25	80	100	200	900	Y
50. Wisconsin	20	110	20	300	20	750	45	2,150	Z
51. Wyoming	24	35	36	60	60	160	180	760	
AVERAGE	27	118	28	261	35	780	59	2858	

ASSUMPTIONS, NOTE, (*) and STATE NOTES: Please see Table 9.

30-mile movement for 30 Kips ranges from \$5 in several states to \$160 in Kentucky and Oklahoma. Washington's comparable figure is \$18.90. Fines, for the same weight/distance combination vary from \$100 in Texas, Alabama, Idaho and New Hampshire to \$25,675 in Rhode Island, revealing the startling disparity among states in applying penalties for overloads. The disparity is significantly less at an overload of 3 Kips with the lowest fine being \$15 in Colorado and the highest being \$500 in Arizona. Such movements in Washington result in a \$450 fine.

Examination of Tables 10 and 11, 100 mile and 300 mile movements respectively, reveals that only 15 states have a fee structure (all fines are not related to mileage) that reflects distance and results in changes from Table 9. Fees for a 300 mile trip, carrying 30 Kips in overweight, increase to a maximum of \$310 for the state of Louisiana. Washington's comparable fee is \$189.

Particular attention was paid to the states of California, Idaho, Oregon and Washington. The data in Tables 12 to 15 are obtained directly from the figures in Tables 9-11. This presentation allows a direct comparison of the results of the Washington fine and fee structure in 1990 to the surrounding or closely associated states. For a 30 mile movement all four states are quite similar, all remaining around \$15 with only a 30 Kip movement in Washington reaching \$18.90, not too distant from the \$16.62 average for the three states (Table 12). Fines, on the other hand, vary tremendously, \$25 to \$140 (Washington the highest) at the 3 Kip overload, and \$100 to \$6,000 at the 30 Kip level.

TABLE 12. Permit Fees and Fines for a 30-Mile Trip: California, Idaho, Oregon, and Washington

STATE	KIPS OF EXCESS WEIGHT						
	3	5	10	30	FEE	FINE	
California	\$15.00	\$15.00	\$175.00	\$15.00	\$1,500.00	\$15.00	\$6,000.00
Idaho	15.09	15.16	40.00	15.32	80.00	15.95	100.00
Oregon	12.35	12.56	150.00	13.10	800.00	Axles	3,900.00
Washington	14.00*	14.00*	200.00	14.00*	350.00	18.90	950.00
AVERAGE	14.11	14.18	141.25	14.36	682.50	16.62**	2,737.50

*Minimum fee.

**A three-state average.

TABLE 13. Permit Fees and Fines for a 100-Mile Trip: California, Idaho, Oregon and Washington

STATE	KIPS OF EXCESS WEIGHT					
	3	5	10	30	FEE	FINE
California	\$15.00	\$15.00	\$175.00	\$15.00	\$15.00	\$6,000.00
Idaho	15.32	15.53	40.00	16.05	18.15	100.00
Oregon	22.50	23.20	150.00	25.00	Axles	3,900.00
Washington	14.00*	14.00*	200.00	14.00	63.00	950.00
Average	16.70	16.93	141.25	17.51	32.05**	2,737.50

*Minimum fee.

**A three-state average.

TABLE 14. Permit Fees and Fines for a 300-mile Trip: California, Idaho, Oregon and Washington

STATE	KIPS OF EXCESS WEIGHT							
	3	5	10	30	FEE	FINE		
California	\$15.00	\$15.00	\$175.00	\$15.00	\$15.00	\$1,500.00	\$15.00	\$6,000.00
Idaho	15.95	16.58	40.00	18.15	24.45	80.00	24.45	100.00
Oregon	51.50	53.60	150.00	59.00	Axles	800.00	Axles	3,900.00
Washington	21.00	21.00	200.00	42.00	189.00	350.00	189.00	950.00
Average	25.86	26.55	141.25	33.54	76.15**	682.50	76.15**	2,737.50

**A three-state average.

TABLE 15. Permit Fees for 30-, 100-, and 300-Mile Trips: California, Idaho, Oregon and Washington

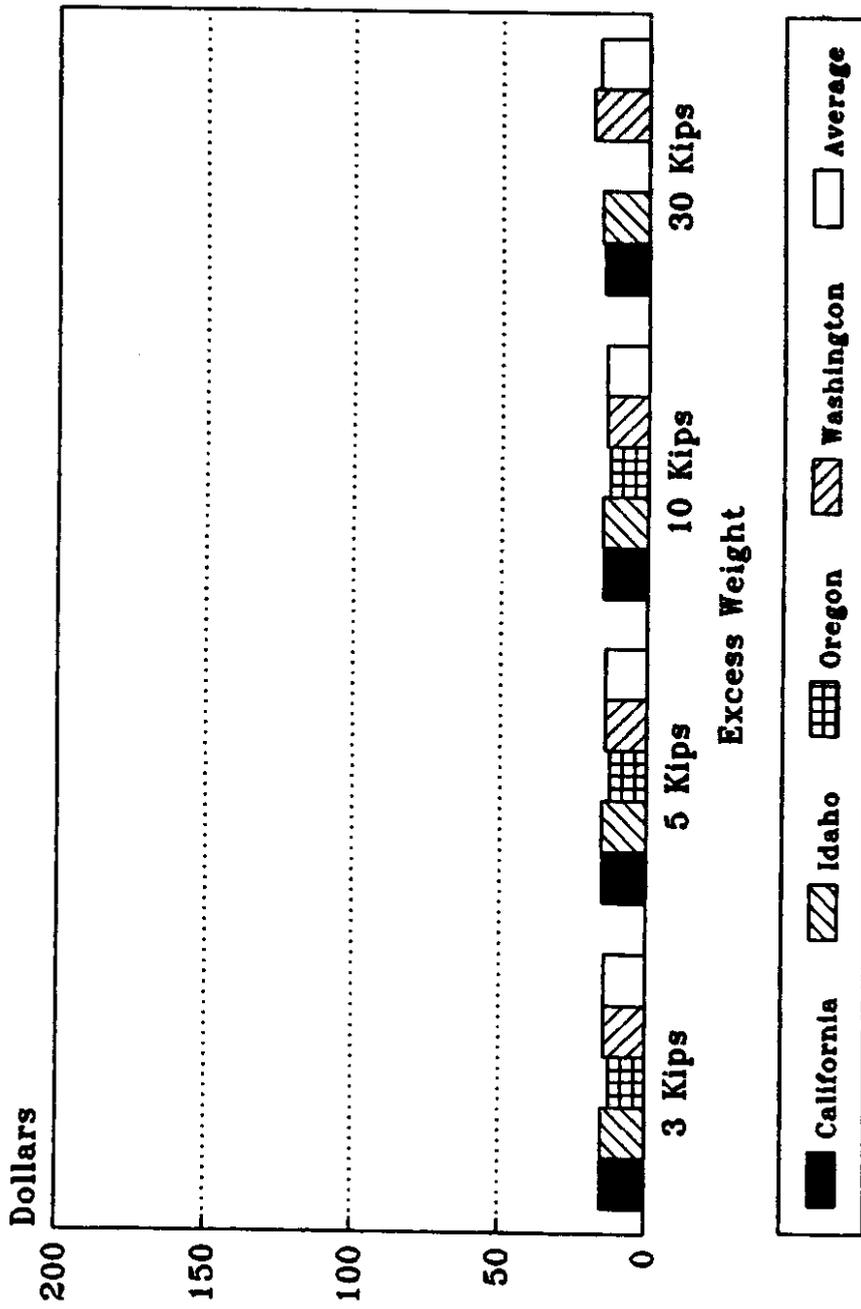
STATE	EXCESS WEIGHT											
	3 KIPS			5 KIPS			10 KIPS			30 KIPS		
	30 mi.	100 mi.	300 mi.	30 mi.	100 mi.	300 mi.	30 mi.	100 mi.	300 mi.	30 mi.	100 mi.	300 mi.
California	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00	\$15.00
Idaho	15.09	15.32	15.95	15.16	15.53	16.58	15.32	16.08	18.15	15.95	18.15	24.45
Oregon	12.35	22.50	51.50	12.56	23.20	53.60	13.10	25.00	59.00	Axles	Axles	Axles
Washington	14.00	14.00	21.00	14.00	14.00	21.00	14.00	14.00	42.00	14.00	63.00	189.00
AVERAGE	14.11	16.70	25.86	14.18	16.93	26.55	14.36	17.51	33.54	16.62*	32.05*	76.15*

*A 3-state average.

For a 100 mile or 300 mile movement the same disparity is evident. Fees remain closely bunched, \$15 to \$22.50 at the 3 Kip level. Fines quickly separate until at the 100 mile, 30 Kip movement Idaho issues a \$100 fine, compared to California's \$6,000 fine. Washington's fine of \$950 is significantly less than the 4 state average of \$2,737.50. Interestingly, as noted earlier, there is no difference at the 10 or 30 Kip level in fines for a 100 mile versus 300 mile movement for these 4 states.

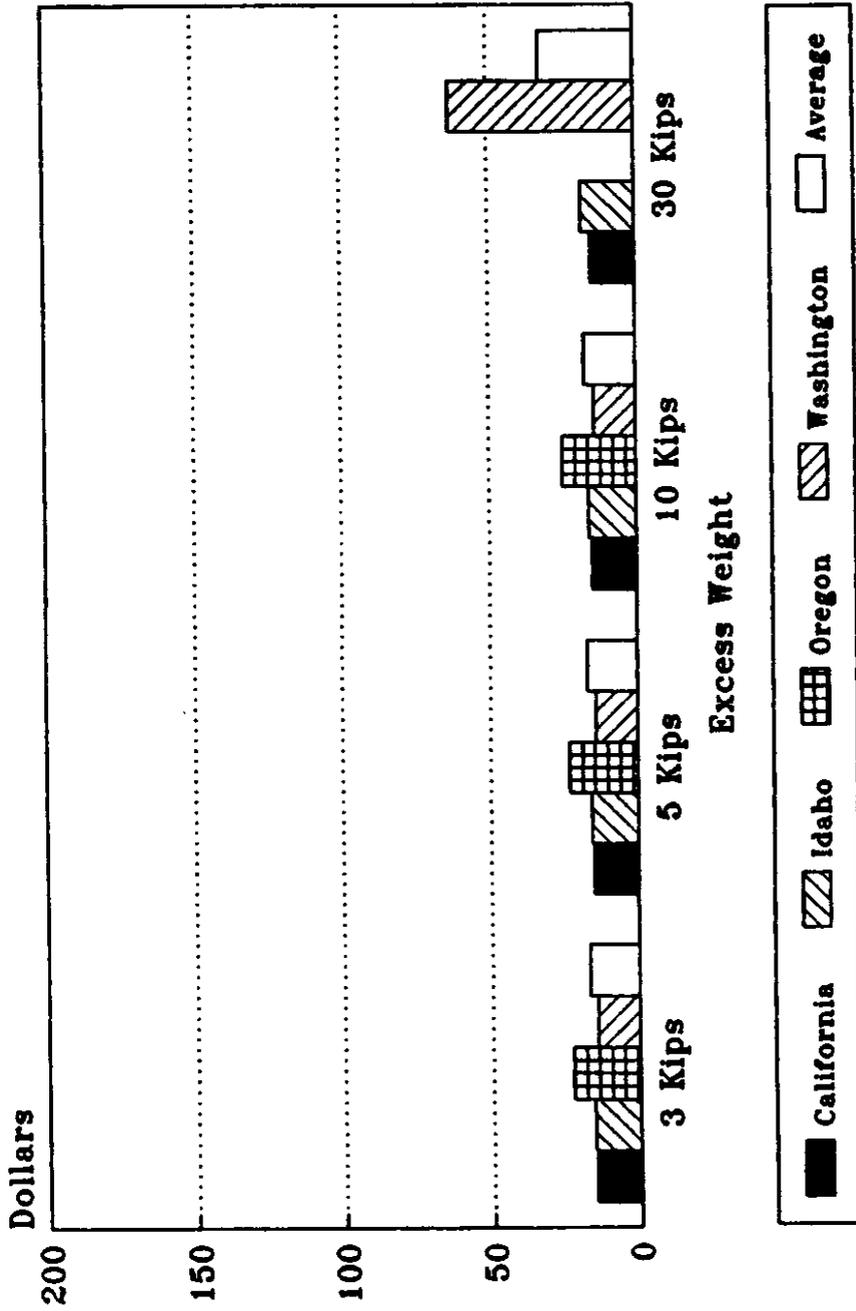
A slightly different look at the same fee data is available from examining Table 15. The flat fee rate of \$15 for a single trip in California, for any amount of excess weight, is quickly evident. The increasing impact of weight in Washington's fees is also revealed, until at 30 Kips and 300 miles the fee is 700 percent higher than Idaho. Figures 8-10 and 11-14 give a graphical presentation of these relationships and how they shift over mileage and extra legal weight for each state. Again, what is sharply apparent is the extreme magnitude of the Washington fees at the heavier weight, longer distance movements (Figure 10). At the lower extra legal weight limits (3 and 5 Kips) Oregon is significantly more punitive than the other states (Figures 11 and 12).

The importance of weight in each state's fee structure, at varying distances, is shown in Figures 15-17. Once again is evident the similarities among states at the lower weights and distances and differences between Washington and the other states, on the average, at the heavier loads. Similarly, Figure 18 reveals the heavy fines imposed by California and Washington for overloads of 10 or 30 Kips. Idaho is conspicuous because of its low level of recovery of costs by revenue income.



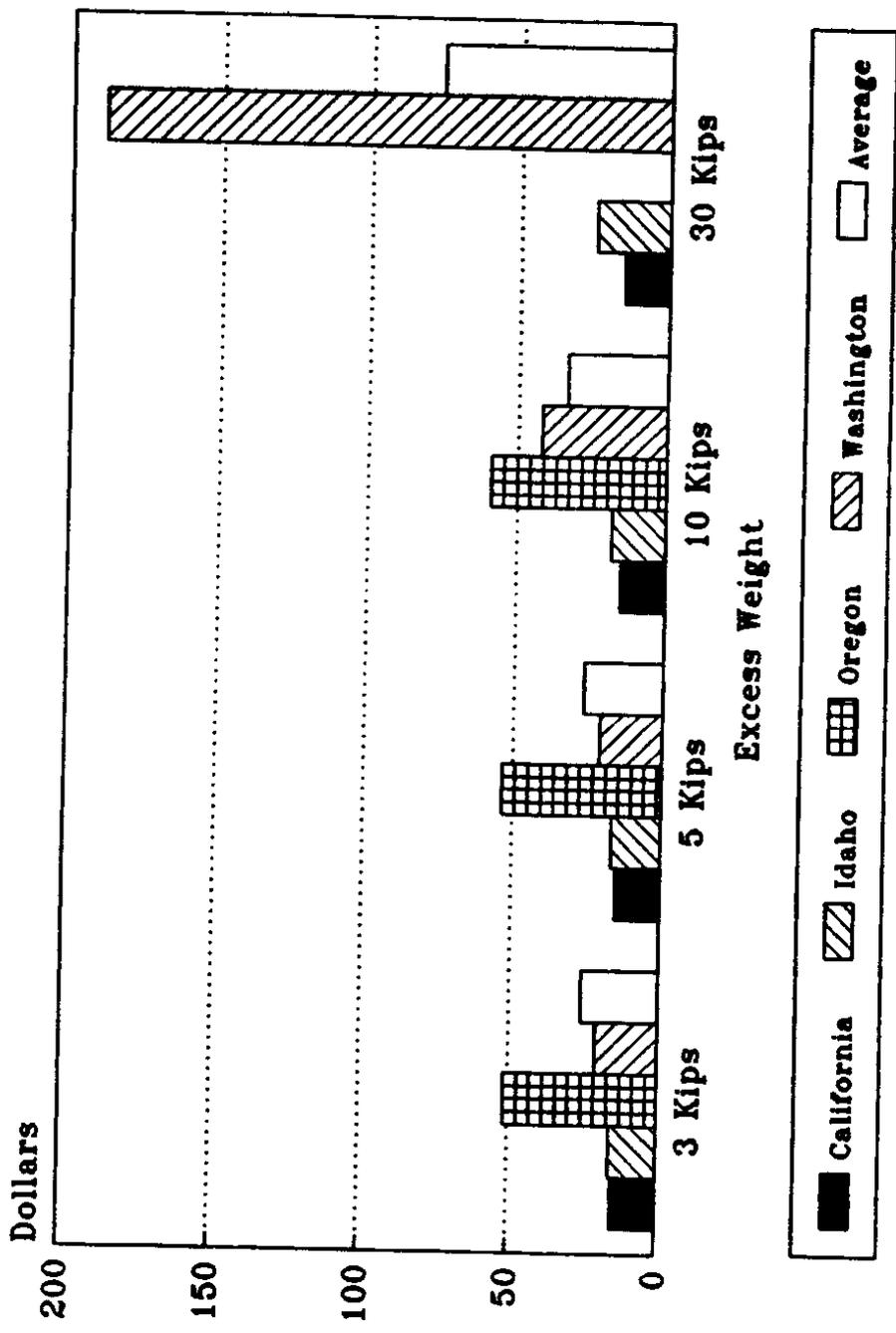
NOTE: Oregon's fee for 30 kips is not available. Fees are based on axle weights when over 98K GVW.

FIGURE 8. Permit Fees by Weight for 30-Mile Trip: California, Idaho, Oregon, and Washington



NOTE: Oregon's fee for 30 Kips is not available. Fees are based on axle weights when over 98K GVW.

FIGURE 9. Permit Fees by Weight for 100-Mile Trip: California, Idaho, Oregon, and Washington



NOTE: Oregon's fee for 30 kips is not available. Fees are based on axle weights over 98K GVW.

FIGURE 10. Permit Fees by Weight for 300-Mile Trip: California, Idaho, Oregon, and Washington

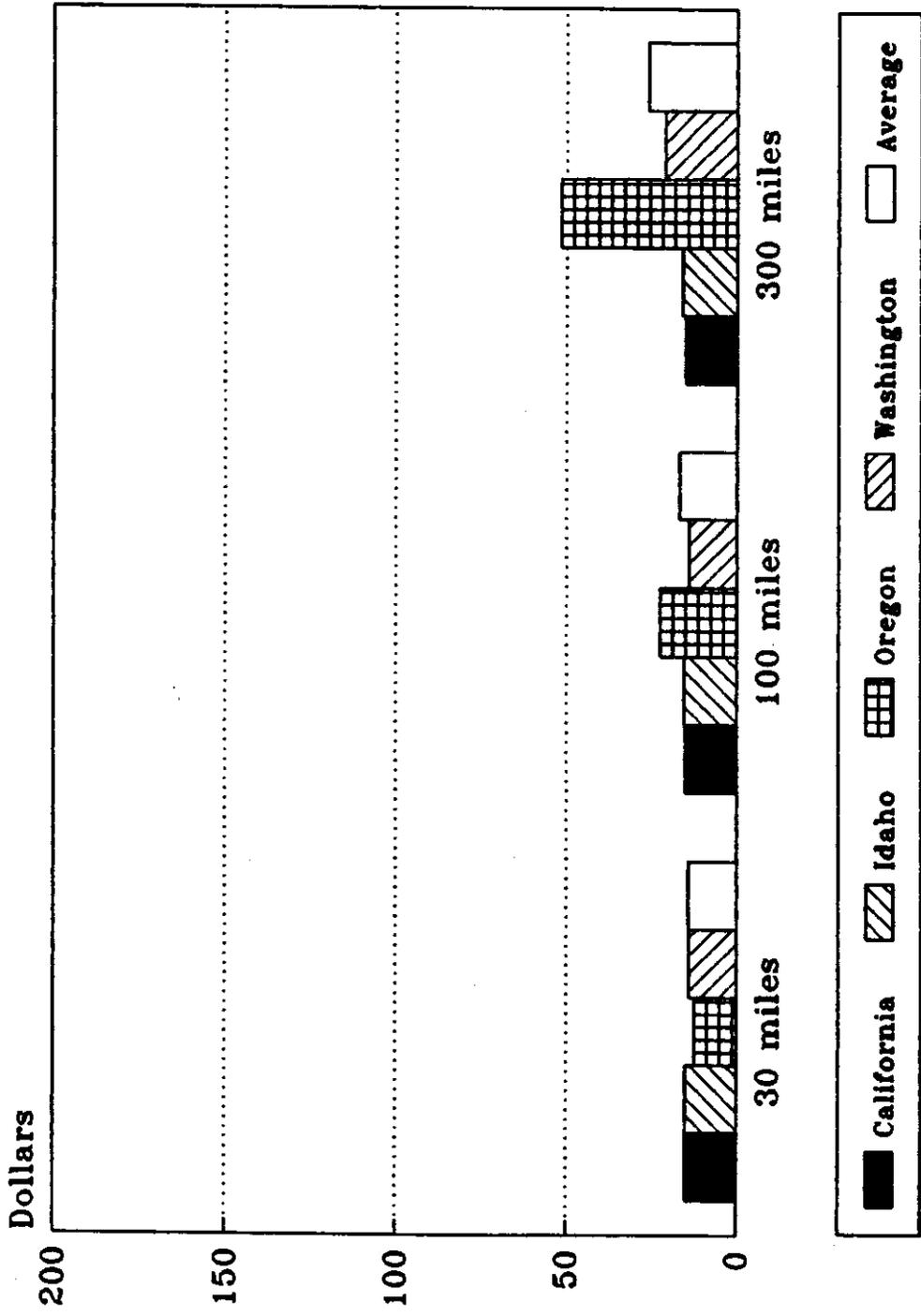


FIGURE 11. Permit Fees by Miles for 3 Kips: California, Idaho, Oregon, and Washington

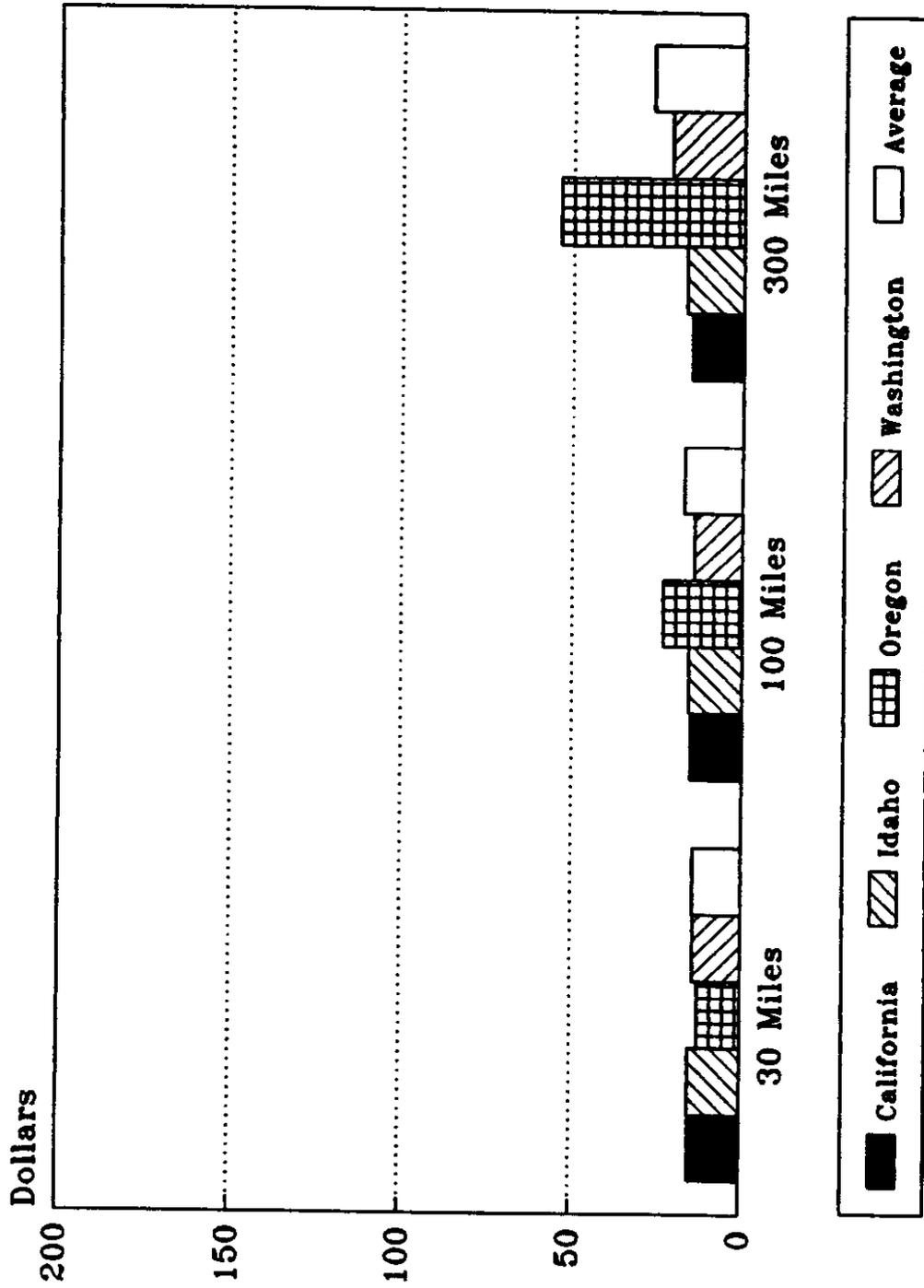


FIGURE 12. Permit Fees by Miles for 5 Kips: California, Idaho, Oregon, and Washington

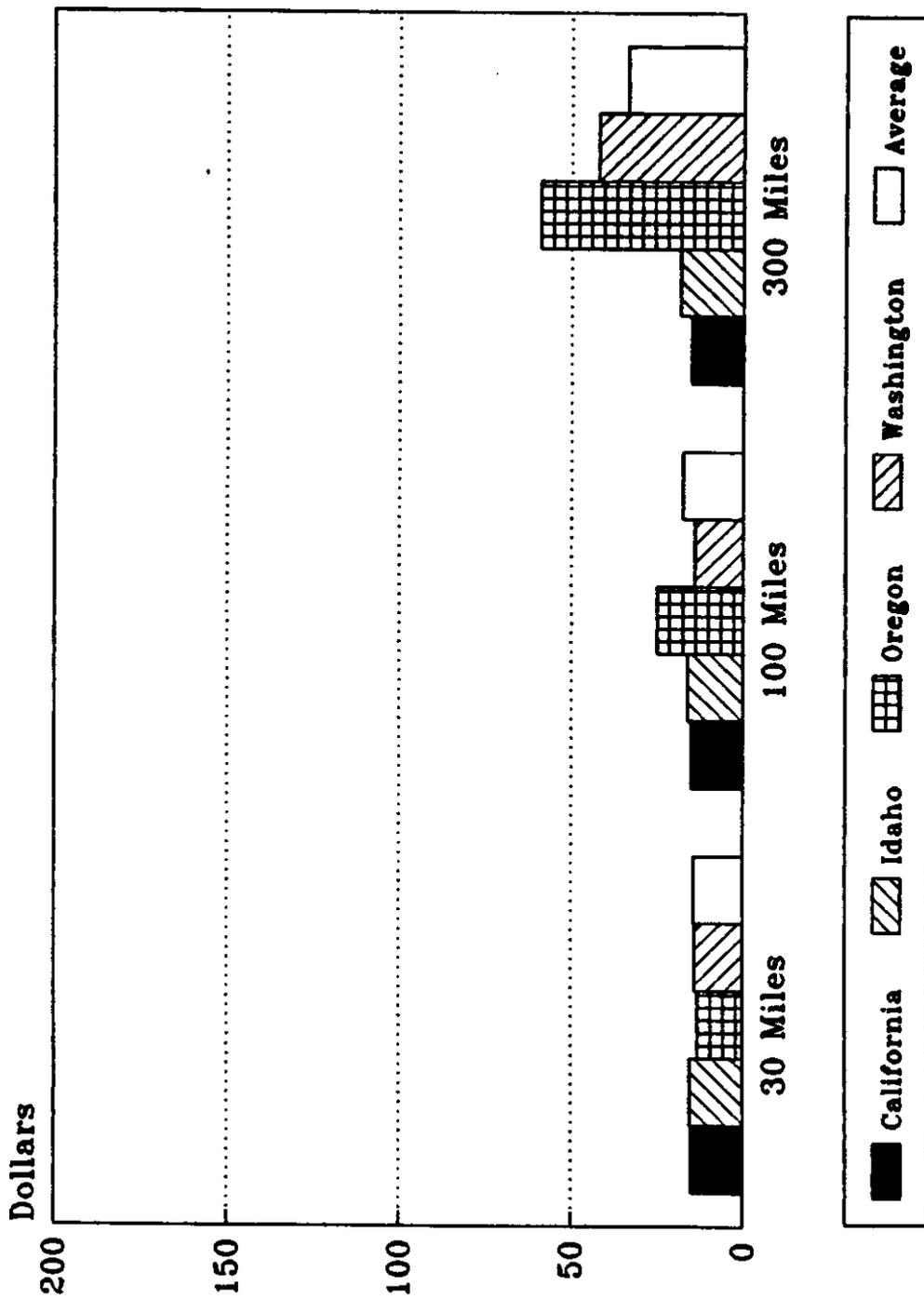
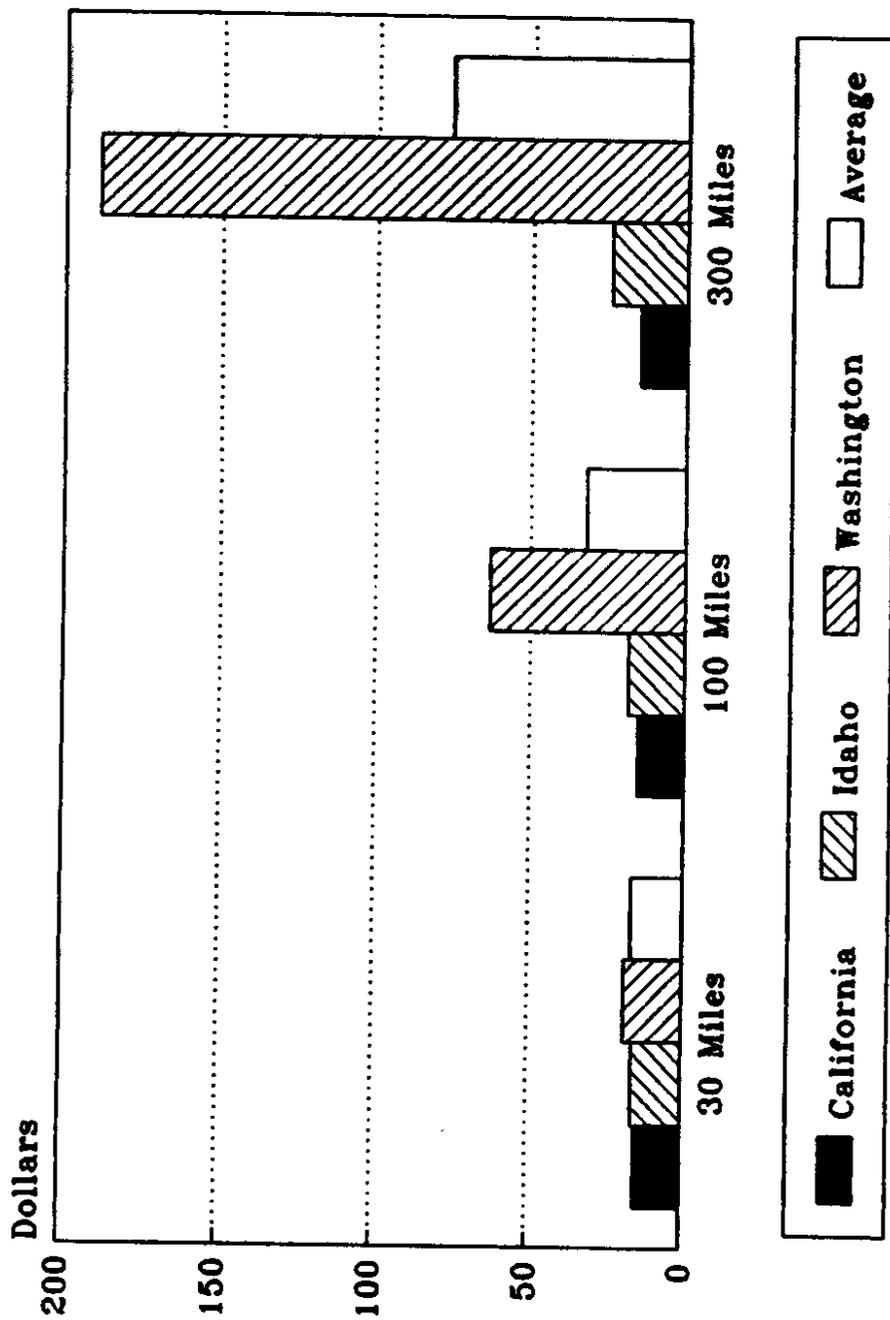
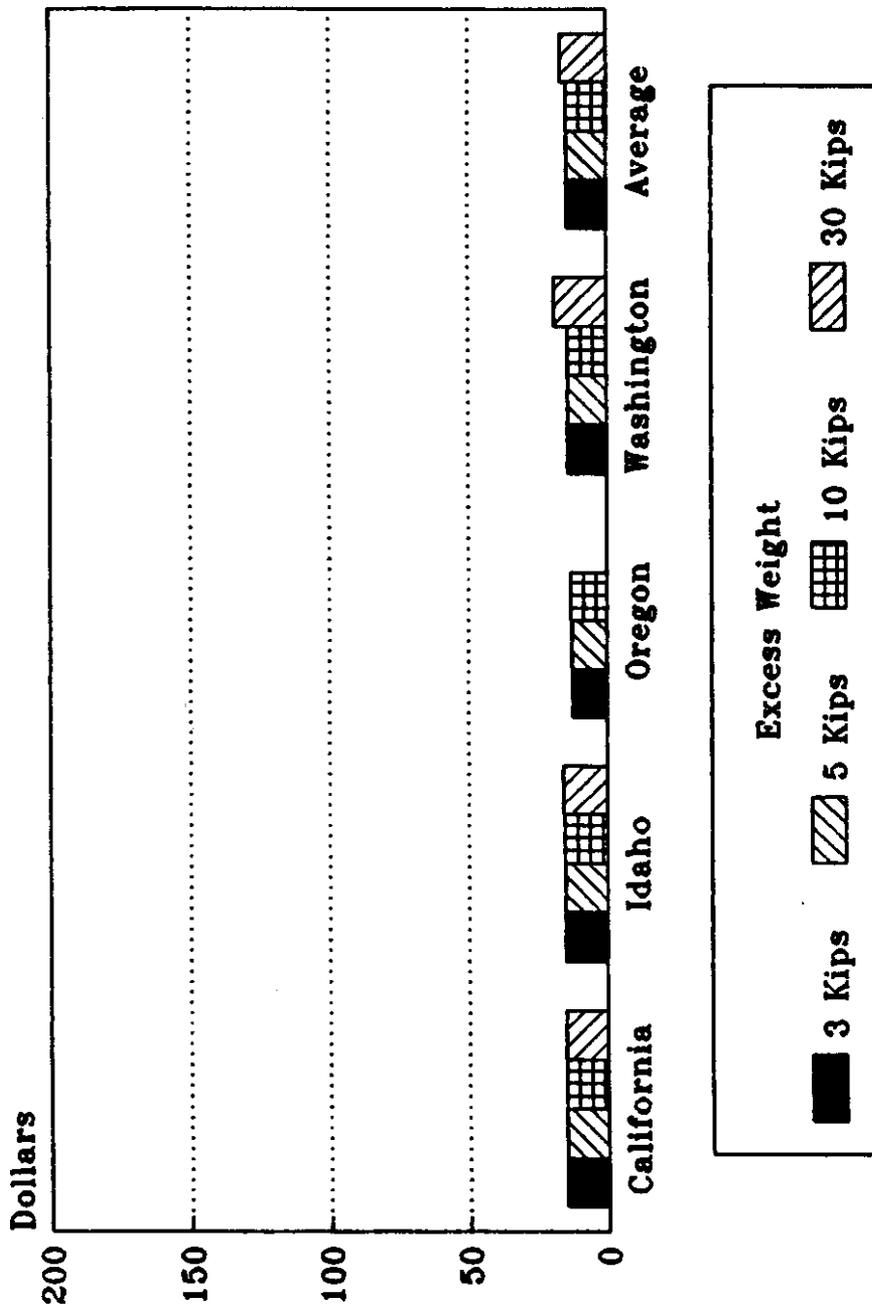


FIGURE 13. Permit Fees by Miles for 10 Kips: California, Idaho, Oregon, and Washington



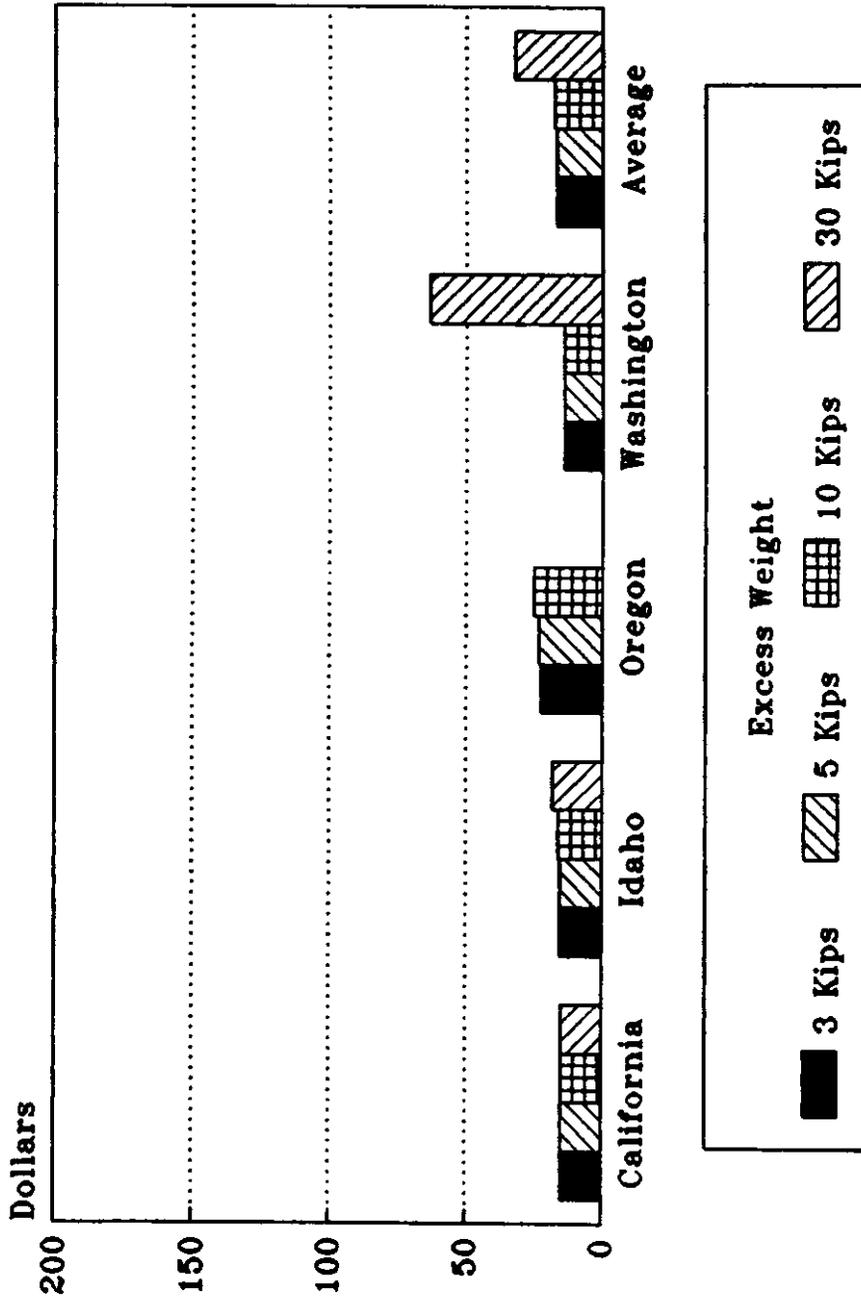
NOTE: Oregon's fees for 30 kips are not available. Permit fees are based on axle weights when 98K lbs. GVW.

FIGURE 14. Permit Fees by Miles for 12 Kips: California, Idaho, Oregon, and Washington



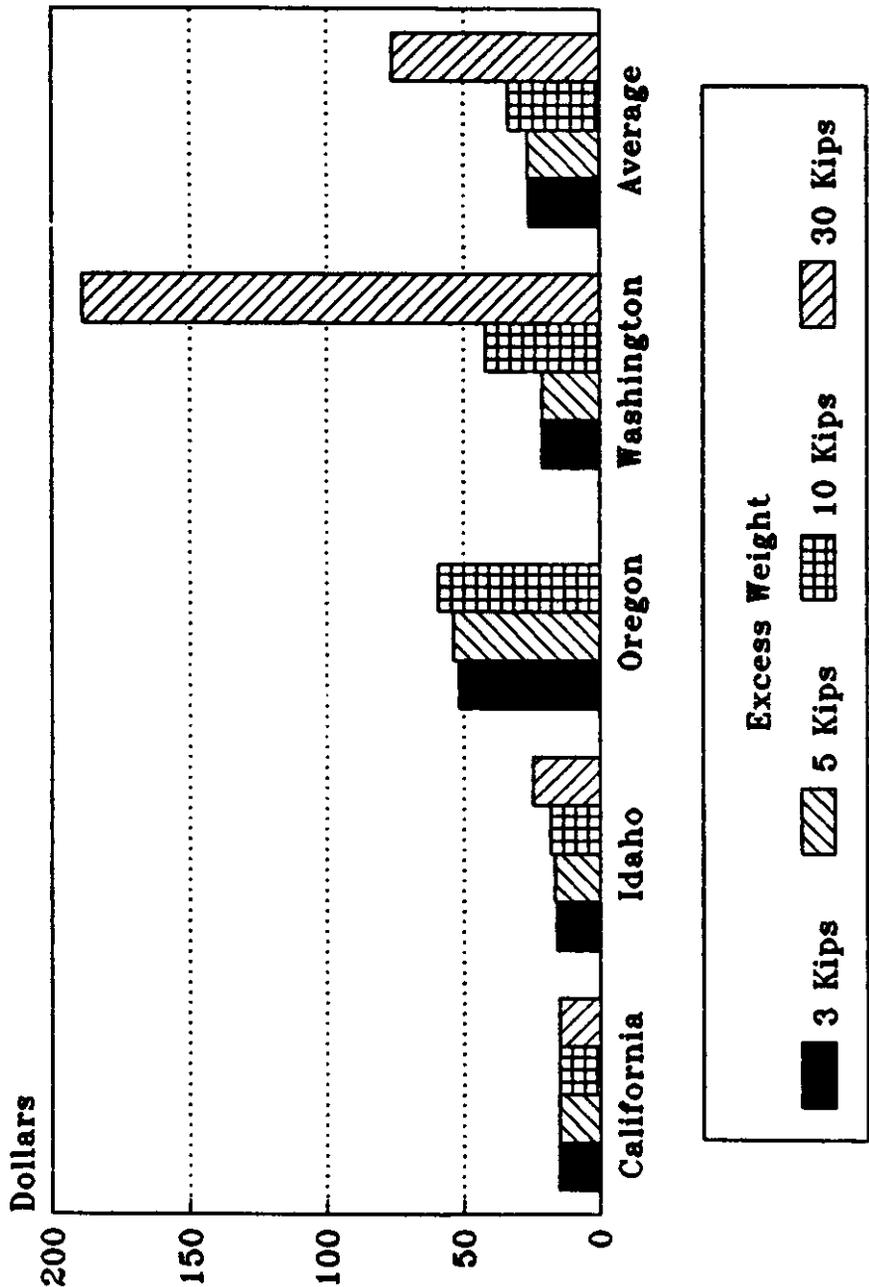
NOTE: Oregon's fee for 30 kips is not available. Fees are based on axle weights when over 98K GVW.

FIGURE 15. Permit Fees by State for 30-Mile Trip: California, Idaho, Oregon, and Washington



NOTE: Oregon's fee for 30 kips is not available. Fees are based on axle weights when over 98K GVW.

FIGURE 16. Permit Fees by State for 100-Mile Trip: California, Idaho, Oregon, and Washington



NOTE: Oregon's fee for 30 Kips is not available. Fees are based on axle weight when over 98K GVW.

FIGURE 17. Permit Fees by State for 300-Mile Trip: California, Idaho, Oregon, and Washington

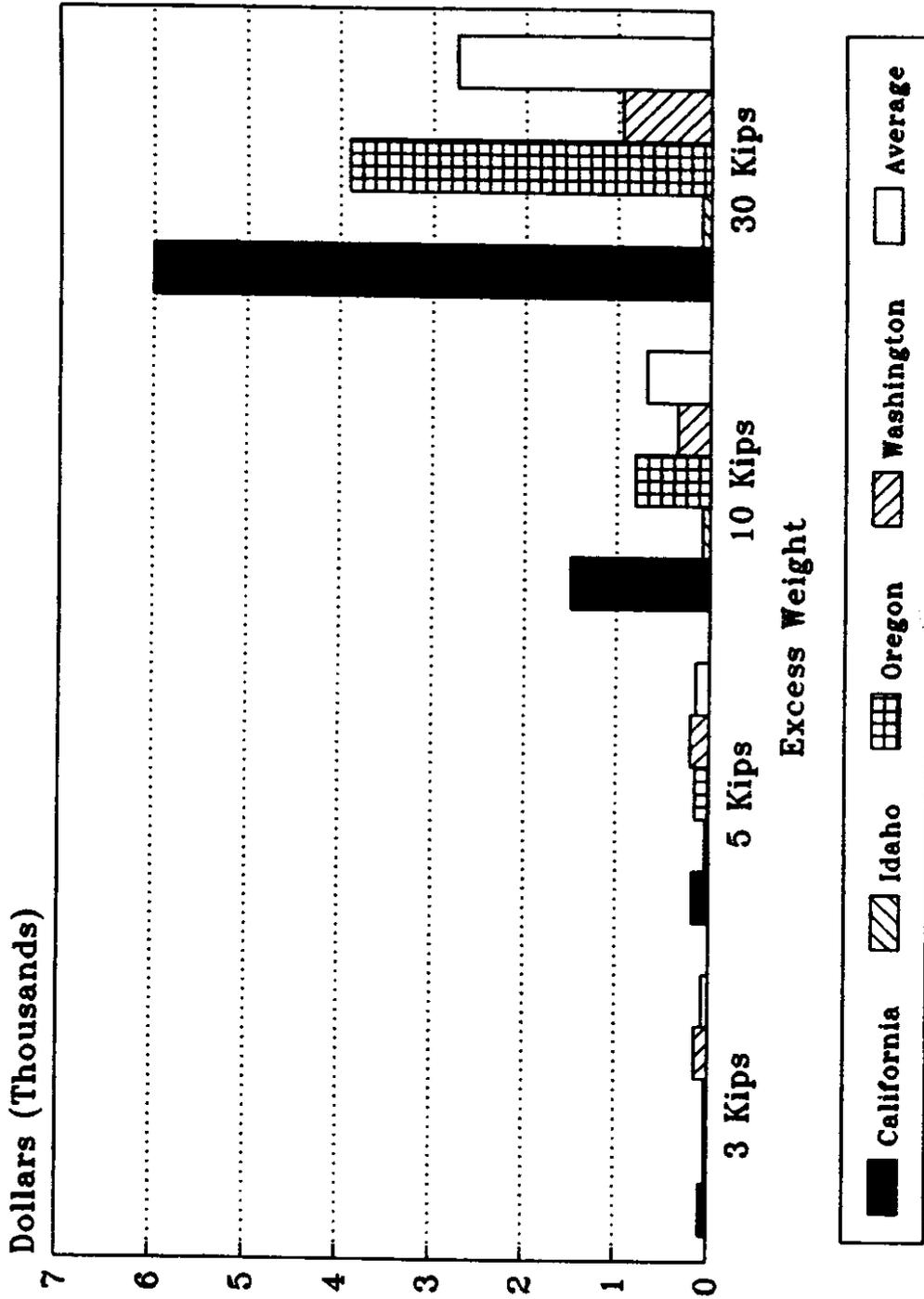


FIGURE 18. Overweight Fines for California, Idaho, Oregon and Washington

Since a common productivity or output measure in transportation analysis is ton miles an effort was made to put the fee structures of these four states on an equivalent measure, Kip miles. What is revealed is the inappropriateness in many instances of using such an output measure when evaluating the issue at hand. In simple terms, because of the increasing function for fee determination at different weights (hopefully reflecting the 4th power road damage function) a 30 mile movement of a 30 Kip overload should result in a greater fee than a 3 Kip movement over 300 miles, although both are 900 Kip miles. However such a situation does not always happen (Table 16). In fact, significant inconsistencies are apparent.

Examples may be the best way to further demonstrate why permit fees are not consistent between different combinations of weight and distance (Table 17). First, at the lower end of a weight category, weight has no impact on the fee. For example, the fee for 30 Kips of excess weight hauled 30 miles (900 Kip-miles) is \$18.90. When weight is increased by one Kip, the fee remains the same. However, a one-mile increase raises the fee to \$19.53 depending on the weight-distance combination. When the entire weight category is considered, nearly 1,080 Kip-miles has the same fee as 900 Kip-miles when weight alone is varied

The second example is for the upper end of the weight category. This situation is quite different. The fee for 35 Kips and 30 miles (1,050 Kip-miles) is \$18.90. When the number of Kips increases by one, the fee is calculated according to a higher per-mile fee. The fee for 1,080 Kip-miles (36 Kips, 30 miles) raises the fee to \$25.20. In comparison,

TABLE 16. Permit Fees for Combinations of Kip-Miles: Idaho, Oregon and Washington*

KIP-MILES	IDAHO	OREGON	WASHINGTON	AVERAGE
90 (30 miles, 3 Kips)	\$ 15.09	\$ 12.35	\$ 14.00 ^a	\$ 13.81
150 (30 miles, 5 Kips)	15.16	12.56	14.00 ^a	13.91
300 (30 miles, 10 Kips)	15.32	13.10	14.00 ^b	
300 (100 miles, 3 Kips)	15.32	22.50	14.00 ^c	14.14
500 (100 miles, 5 Kips)	15.53	23.20	14.00 ^c	17.58
900 (30 miles, 30 Kips)	15.95	Axles	18.90	17.43
900 (300 miles, 3 Kips)	15.95	51.50	21.00	30.48
1,000 (100 miles, 10 Kips)	16.05	25.00	14.00	18.35
1,500 (300 miles, 5 Kips)	16.58	53.60	21.00	30.39
3,000 (100 miles, 30 Kips)	18.15	Axles	63.00	40.58
3,000 (300 miles, 10 Kips)	18.15	59.00	42.00	39.72
9,000 (300 miles, 30 Kips)	24.45	Axles	189.00	106.73

^aMinimum fee. Schedule based fee is \$2,10.

^bMinimum fee. Schedule based fee is \$4.20.

^cMinimum fee. Schedule based fee is \$7.00.

*California has a flat fee for permits and is not included in this comparison.

TABLE 17. Calculated Permit Fees in Washington Using Various Weight-Distance Combinations

30,000 lbs. for 30 miles	\$ 18.90	900 k-m
31,000 lbs. for 30 miles	18.90	930 k-m
30,000 lbs. for 31 miles	19.53	930 k-m
35,999 lbs. for 30 miles	18.90	1,079.97 k-m
35,000 lbs. for 30 miles	18.90	1,050 k-m
36,000 lbs. for 30 miles	25.20	1,080 k-m
35,000 lbs. for 31 miles	19.53	1,085 k-m
35,000 lbs. for 40 miles	25.20	1,400 k-m

19.53 - fee for both 930 and 1,085 k-miles

NOTE:	<u>Overweight (lbs.)</u>	<u>fee per mile</u>
	30,000 - 35,999	.63
	36,000 - 41,999	.84

an increase in distance by one mile is 1,085 Kip-miles with a fee of \$19.53. Thus, 1,080 Kip-miles has a higher fee (\$25.20) than that for 1,085 Kip-miles (\$19.53). At 35 Kips, 40 miles could be traveled to reach the same \$25.20 fee, bringing the number of Kip-miles to 1,400. These results make determining the appropriate fee and fine system to maximize productivity an interesting and challenging proposition.

History and Structure of Fines and Fees in Washington

In this section special attention is paid to the fee and fine structure of the state of Washington, the focal point of this research effort. The details of Washington's legislative history were compiled to determine how Washington came to be where it was in the

fee and fine statutes. The discussion was compiled from numerous sources (see References).

Weight Limits

In the 1900s the Washington State Legislature enacted its first laws regarding limitations on the gross weight of a vehicle operated on the roads of the state. It became unlawful to operate a truck or trailer with a load greater than 10,000 lbs. Later, the 1921 legislation made it unlawful to operate any vehicle of four wheels or less along Washington roads with a gross weight (including load) of more than 22,400 lbs. on one axle. In order to exceed these limits, one had to obtain a special written permit, discussed later. If these limits were exceeded without permission, the judge could impose penalties if a person was convicted of the violation (see Penalty section).

These laws were amended in 1923 (see Table 18). The maximum gross vehicle weight for any vehicle of four wheels or less (or any device not equipped with wheels) remained 24,000 lbs. but the maximum weight allowed on one axle was lowered to 18,500 lbs. The 1923 law also specified maximum gross vehicle combination of vehicles. The gross weight (including load) of any vehicle or combination of vehicles having three axles was not to exceed 42,500 lbs. while this limitation for a vehicle or combination of vehicles having five axles was 44,000 lbs.. A five and six axle vehicle or combination of vehicles had a maximum gross vehicle weight limit of 51,000 lbs. and 56,000 lbs. respectively.

TABLE 18. Weight Laws, 1923

1) Maximum Gross Vehicle Weights (in pounds):

Vehicle with 4 or less wheels	Vehicle or combination of vehicles with:			
	3 axles	4 axles	5 axles	6 axles
24,000	42,500	44,000	51,000	56,000

2) Single Axle Weight Limit for Any Vehicle: 18,500 pounds.

The above limitations remained the same in 1927 but the laws included additional specifications. The gross weight limit for a six wheel motor truck was 27,500 lbs. and the maximum weight allowed on one axle was 11,000 lbs. There were also weight limitations on the trailers pulled by a six wheeled motor vehicle.

The 1929 law increased the maximum gross vehicle weight allowed on a vehicle or combination of vehicles with four axles to 48,000 lbs. A six wheel motor truck was allowed to have a gross vehicle weight of 34,000 lbs. There were additional specifications for various combinations of vehicles. The heaviest combination vehicle allowed by law was a 6 wheel motor truck plus a 6 wheel trailer with a gross weight limit of 60,000 lbs., and a limit of 12,000 lbs. on any one axle.

Through the 1920s the laws evolved to include many weight specifications for all vehicles or combination of vehicles. In 1937 these previous weight laws (described above) were repealed. The new laws contained many of the same provisions as the 1929 law but a formula was also included.

The 1937 limits for any vehicle supported on 2 axles or less had a maximum gross vehicle weight limit of 24,000 lbs. and a single axle limit of 18,000 lbs. Any vehicle supported on 3 axles or more had a maximum gross vehicle weight limit of 34,000 lbs. and a single axle limit of 14,000 lbs. A one axle semi-trailer had a limit of 18,000 lbs. and a two axle semitrailer had a gross weight limit on its 2 axles of 26,000 lbs. and a gross weight limit upon any one of its axles of 14,000 lbs.

Subject to the specifications in the previous paragraph, it became unlawful to operate a vehicle or combination of vehicles with a gross weight in excess of that determined by the following formula:

$$\text{Total Gross Weight} = 750(L + 40),$$

Where L represents the overall distance between the first and last axle of the vehicle or combination of vehicles.

Total gross load, up to the present laws, refers to the weight of the vehicle or combination of vehicles including the load.

More changes were made in the laws in 1941. The maximum gross weight allowed on any 1 axle of any vehicle was 18,000 lbs. The gross weight limit for any vehicle supported by 2 axles became 28,000 lbs.

The formula in the 1937 law was still in effect but another formula was applied to any vehicle or combination of vehicles where the distance between first and last axle of any group of axles of such vehicle or combination vehicles was 18 feet or less. A maximum gross weight determined by the following applied to these vehicles or combination of vehicles:

$$\text{Total Gross Weight} = 650(L + 40),$$

where L is the distance between the first and last axle of the group of axles under consideration.

The latter formula did not apply to any vehicle or combination of vehicles legally in operation at the time this law became effective (one of many grandfather clauses in this regulatory area).

In 1947 there were more modifications to the law. The maximum gross weight allowed for any truck or truck-tractor supported on 2 axles was 26,000 lbs. and the same limit for any trailer or semi-trailer supported on two axles became 32,000 lbs. The gross weight limit for any vehicle supported on 3 or more axles was increased to 36,000 lbs.

The two formulas in the 1941 law were replaced by a table specifying the maximum gross weights based on the distance between any group of axles. This table was also subject to the maximum axle and gross weights specified. The maximum gross weight in the table was 72,000 lbs., applying to a vehicle or combination of vehicles with 53 feet or more between the wheelbase of any group of axles. (The 1947 law also specified a 5% log tolerance, beyond the gross weights specified in the weight table, the first special treatment noticed in this review).

In 1949 the gross weight limit of any truck or truck tractor supported on 2 axles was increased to 28,000 lbs. The table of maximum gross weights was modified but the maximum legal weight on the table remained 72,000 lbs. for a vehicle or combination of vehicles with 53 feet or more between any group of its axles.

The 1949 law included the first provision for a special permit for additional loads. This special permit was different from a permit for overweight vehicles (see following Permit section). The special permit allowed for an additional 2,000 lbs. gross load, when fully licensed, for 3 axle trucks, 2 axle trailer,s 3 axle trailers and 3 axle truck-tractors upon payment of \$50 for each vehicle operated per year. This special permit was valid on highways or sections of highways which had been designed and constructed for weights in excess of legal limitations.

The 1951 law increased the allowable additional tonnage for the 3 axle truck tractors to 4,000 lbs. above the gross load when fully licensed at a cost of \$50 per 2,000 lbs. issued. In 1953 the special permit law was amended as follows. A 3 axle truck-tractor, a 3 axle truck, a 2 axle trailer or a 2 axle trailer were eligible, upon special permit, to carry an additional gross load not to exceed 4,000 lbs. over and above the maximum permissible to be licensed. The fee for this additional gross weight remained at \$50 for each 2,000 lbs. issued.

The laws of 1955 increased the gross limit for any 2 axle trailer to 36,000 lbs. Additional tonnage laws were changed in 1957. A 3 axle truck operated as a solo unit was eligible to operate in excess of what was allowed by the weight table, upon payment of \$50 per 2,000 lbs. provided that the axle loads did not exceed the limits specified by law. Some vehicle combinations were also eligible for additional tonnage permits, purchased for \$50 per 2,000 lbs., but not to exceed \$100 for the total excess weight, provided that the axle weights did not exceed the limits specified by law and further provided that the gross weight of a 2 or 3 axle truck operated in combination with a 3

or more axle trailer did not exceed 76,000 lbs., and the gross weight of a 3 or more axle truck-tractor operated in combination with a semi-trailer did not exceed 73,280 lbs.

In 1971, garbage trucks were allowed a tolerance on the single axle load limitation. The maximum gross vehicle weight specified on the weight table remained 72,000 lbs.

In 1973 a new table of gross weights was included in the legislation as well as several new other changes in the gross weights. The single axle limit remained 18,000 lbs. The gross weight for 2 axles decreased to 32,000 lbs. The gross weight for any vehicle supported upon 3 or more axles was increased to 40,000 lbs.

The new table was broken down by distance in feet between the extremes of any group of 2 or more consecutive axles and the number of axles. The maximum legal weight on this table was 105,000 lbs. for 9 axles with a distance of 60 feet between the extremes of this group of axles. However, additional tonnage permits were required (if the vehicle or combination of vehicles was eligible) for the weight above the licensed capacity. The maximum licensed capacity was 72,000 lbs.

The laws described above were repealed in 1975-1976. A new table, which was a modification of the 1973 table, was included in the legislation. The new maximum licensed capacity was for 80,000 lbs. And, the maximum legal weight on the 1975-1976 table was 105,000 lbs. for 9 consecutive axles with the extreme axles spaced 70 feet apart.

The single axle gross limit was increased to 20,000 lbs. and two consecutive sets of tandem axles could carry 34,000 lbs. each if the overall distance between the first and last axles of this set was 36 feet or more.

The additional tonnage laws changed in 1975-1976 and are basically the same presently. The law stated that until 1976, a combination of vehicles lawfully licensed to a total gross weight of 72,000 lbs., and a 3 or more axle single unit vehicle lawfully licensed to 40,000 lbs. and on January 1, 1977 and thereafter, when a combination of vehicles has been lawfully licensed to a total gross weight of 80,000 lbs. and a 3 or more axle single unit vehicle has been lawfully licensed to a total gross weight of 40,000 lbs. according to the provisions relating to the total weight allowable, a permit for additional weight may be issued for \$37.50 for each 1,000 lbs. per year of additional weight. According to this law, the specified weights in the table cannot be exceeded, nor can the single axle limit of 20,000 lbs.

The maximum weights in the table represent "legal" weights for a given truck. Possession of an additional tonnage permit does **not** allow hauling a load heavier than a legal load. An overweight permit is necessary, if the vehicle or combination of vehicles is eligible, for the movement of loads above the weights in the table.

The 1977 law modified the weight table to include more details for any 2 consecutive sets of tandem axles. These tables weights are higher than those specified for a group of 4 consecutive axles. Again in 1985 this table was modified, no longer including the additional category specifying the maximum load in pounds legally carried on any group of 2 consecutive sets of tandem axles. The maximum legal load specified

by this table remained 105,000 lbs., but could be carried on a group of 8 or 9 axles with 70 inches between the extreme axles in this group. The maximum single axle and tandem axle limits remained 20,000 lbs. and 34,000 lbs. respectively. No changes have been made in these limits since 1985.

Permit Structure

The 1937 law allowed the issuance of a special permit authorizing the applicant to operate a vehicle or combination of vehicles with a weight exceeding the maximum specified by the weight laws. The vehicle had to be licensed for the maximum gross weight allowed by law. The permit was to be issued or withheld by the director of highways or local authority, at his/her or its discretion. If issued, discretion was also used in limiting the number of trips, in establishing seasonal or time limitations for operation of the vehicle on the public highways indicated, or to limit or prescribe conditions of operation of such vehicle in order to prevent undue damage to the road foundation, surfaces or structures.

Maximum weight limits were set for permits in the 1945 laws. Permits could not be issued where the gross weight on a single axle exceeded 22,000 lbs. or 40,000 lbs. on any group of axles having a wheelbase between the first and last axle of less than 10 feet.

In 1947, the maximum weight limit for a permit was increased to 41,000 lbs. on any group of axles having a wheelbase between the first and last axle of less than 10 feet. A tolerance of 2,000 lbs. was established for this specification as well.

The 1947 laws, for the first time, included an overweight fee schedule (see Table 19). The following fees, in addition to the regular license and tonnage fees, were to be paid for gross loadings in excess of loadings authorized by law or axle loadings in excess of loadings authorized by law, whichever was the greater.

TABLE 19. Overweight Fee Schedule, 1947 Laws

Weight over that allowed by statute	Miles Traveled		
	50 or less	Over 50 but less than 200	200 or more
7,000 lbs. or less	\$ 5.00	\$ 10.00	\$ 15.00
Over 7,000 lbs. but less than 14,000 lbs.	10.00	20.00	30.00
Over 14,000 lbs. but less than 20,000 lbs.	15.00	30.00	45.00
Over 20,000 lbs.	50.00	100.00	150.00

The 1947 law also allowed for the purchase of a special permit for additional loads. An additional 2,000 lbs. gross load over the maximum gross load (as defined by the weight laws), when licensed, for 3 axle trucks, 2 axle trailers, 3 axle trailers and 3 axle truck-tractors, for operation on highways or sections of highways which had been designed and constructed for weights over the legal limitations, was allowed for \$5 annually per vehicle. (Details for additional tonnage for years following 1947 were included in the previous section on weight laws).

The overweight fee schedule was changed in 1959, as shown in Table 20. The new table was based on the actual number of miles to be traveled instead of the three mileage groupings. A minimum fee for any overweight permit was set at \$5.00.

TABLE 20. Overweight Fee Schedule, 1959 Laws

WEIGHT OVER THAT ALLOWED BY STATUTE	FEE PER MILE ON STATE HIGHWAYS
1 - 5,999 lbs.	\$ 0.10
6,000 - 11,999 lbs.	0.20
12,000 - 17,999 lbs.	0.30
18,000 - 23,999 lbs.	0.50
24,000 - 29,999 lbs.	0.70
30,000 - 35,999 lbs.	0.90
36,000 lbs. or more	1.10

Again the overweight fee schedule was modified in the 1965 laws. The new table was as shown in Table 21. Note the decreased rates for each weight category, a subject of some following analysis.

TABLE 21. Overweight Fee Schedule, 1965 Laws

WEIGHT OVER THAT ALLOWED BY STATUTE	FEE PER MILE ON STATE HIGHWAYS
1 - 5,999 lbs.	\$ 0.075
6,000 - 11,999 lbs.	0.15
12,000 - 17,999 lbs.	0.225
18,000 - 23,999 lbs.	0.375
24,000 - 29,999 lbs.	0.525
30,000 - 35,999 lbs.	0.675
36,000 lbs. or more	0.825

The 1967 laws included a new overweight fee schedule (Table 22). The number of weight categories increased from 7 to 14. This fee schedule was based on distance and weight as was the previous table.

TABLE 22. Overweight Fee Schedule, 1967 Laws

WEIGHT OVER THAT ALLOWED BY STATUTE	FEE PER MILE ON STATE HIGHWAYS
1 - 5,999 lbs.	\$ 0.05
6,000 - 11,999 lbs.	0.10
12,000 - 17,999 lbs.	0.15
18,000 - 23,999 lbs.	0.25
24,000 - 29,999 lbs.	0.35
30,000 - 35,999 lbs.	0.45
36,000 - 41,999 lbs.	0.60
42,000 - 47,999 lbs.	0.75
48,000 - 53,999 lbs.	0.90
54,000 - 59,999 lbs.	1.05
60,000 - 65,999 lbs.	1.20
66,000 - 71,999 lbs.	1.45
72,000 - 77,999 lbs.	1.70
*	
80,000 lbs. or more	2.00

* Actual omission rectified in 1990 legislation.

There were no changes in this fee schedule until 1990, except for the substitution of "79,999" for "77,999" in the second to last line in 1985. Hence, this schedule had been basically unchanged for over 20 years until, in 1990 it was increased 40% by legislative action. The 1990 fee (permit) structure is seen in Table 23 (see Casavant).

TABLE 23. Overweight Fee Schedule, 1990 Laws

WEIGHT OVER THAT ALLOWED BY STATUTE	FEE PER MILE ON STATE HIGHWAYS
1 - 5,999 lbs.	\$ 0.07
6,000 - 11,999 lbs.	0.14
12,000 - 17,999 lbs.	0.21
18,000 - 23,999 lbs.	0.35
24,000 - 29,999 lbs.	0.49
30,000 - 35,999 lbs.	0.63
36,000 - 41,999 lbs.	0.84
42,000 - 47,999 lbs.	1.05
48,000 - 53,999 lbs.	1.26
54,000 - 59,999 lbs.	1.47
60,000 - 65,999 lbs.	1.68
66,000 - 71,999 lbs.	2.03
72,000 - 79,999 lbs.	2.38
80,000 lbs. or more	2.80

Penalty Structure

In the 1923 laws there was a provision for penalties relating to the weight laws. Upon conviction for the violation of the weight laws, a fine of not less than \$25 was imposed. For a second violation, a fine not to exceed \$50 was to be imposed at the discretion of the judge or court and, in addition, the vehicle license was suspended for 30 days. Upon a third violation a fine not to exceed \$100 was to be imposed as well as a suspension of the vehicle license for a period of three months (see Table 24).

TABLE 24. Fines for Violation of Weight Laws, 1923

First Conviction	≥ \$25	
Second Conviction	≤ \$50	30 day vehicle license suspension
Third Conviction	≤ \$100	3 month vehicle license suspension

The law was modified in 1937 as shown in Table 25. The 1937 law stated that any person violating the weight and load limit was guilty of a misdemeanor and upon first conviction was to be fined no less than \$10, nor more than \$25. The penalty for a second conviction was not less than \$25 nor more than \$50 and in addition, the court could suspend the certificate of license registration of the vehicle or combination of vehicles for no longer than 30 days. And upon a third or subsequent conviction the fine was to be not less than \$50 nor more than \$100 and the court was to suspend the certificate of license registration for not less than 30 days. Upon conviction of a violation of a posted limitation, a fine not less than \$100 and a suspension for not less than 30 days was imposed.

TABLE 25. Fines for Violation of Weight Laws, 1937

First Conviction	\$10 - \$25	
Second Conviction	\$25 - \$50	Possible suspension, not more than 30 days
Third Conviction	\$50 - \$100	3 month suspension or longer

The monetary penalties were revised in the 1947 laws (Table 26). The provisions for the suspension of the certificate of license registration remained the same as in the 1937 laws. The monetary penalties were increased as follows. Upon first conviction the

fine was to be not less than \$25 nor more than \$50; upon second conviction the fine was to be not less than \$50 nor more than \$100; and upon a third or subsequent conviction the fine was to be not less than \$100. The fine for a violation of a posted limitation remained the same.

TABLE 26. Fines for Violation of Weight Laws, 1947

First Conviction	\$25 - \$50	
Second Conviction	\$50 - \$100	Possible suspension, not more than 30 days
Third Conviction	\$100 +	3 month suspension or longer

The fine schedule remained unchanged in the 1951 laws. (In later laws this was referred to as the basic fine.) However, a new section was added with the intent of providing a method of compensation to the state for any use of the highways beyond the designed capacity. Thus, in addition to any penalty, a payment for excess weights over and beyond those specified in the law (e.g. weight law, log tolerances), was established as shown in the following schedule (Table 27). Hence, a conviction of a violation of the weight laws required both the payment of the basic penalty or fine and the payment for the excess weight.

TABLE 27. Payment for Excess Weights

Excess Weight (lbs.)	Payment (per lb.)
< 5,000	\$ 0.02
5,000 - 9,999	0.03
10,000 or more	0.04

The 1953 law added that for the suspension of license registration, conviction was based on the same vehicle or combination of vehicles during a 12-month period, regardless of ownership.

The fine, and excess weight schedules remained the same but an additional provision was included in the 1959 law. This provision gave the court discretion to suspend the additional fine (excess weight fine) for excess poundage upon first conviction, when the excess weight was less than 5,000 lbs. In no case could the basic fine be suspended.

This provision was modified in 1961. This law made it possible for the fine up to 5,000 lbs. of excess weight to be suspended and the excess weight over 5,000 lbs. could then apply to the schedule of additional fines as if the excess weight over 5,000 lbs. had been the only excess weight, but in no case could the basic fine be suspended. (Note: This suspension difference will receive attention in following analysis.)

Both the basic fine and the additional (excess) fine schedules were changed in the 1975-1976 laws. The basic fine schedule was changed as follows. The basic fine for a first conviction of an overweight violation was not less than \$50; a second conviction had a fine of not less than \$75; and upon a third or consequent violation the fine was not less than \$100. The certificate of licensed registration could be suspended upon a second conviction for no more than 30 days, and was to be suspended for third or consequent convictions, for no less than 30 days. Convictions were based on the same vehicle or combination of vehicles within a 12 month period under the same ownership.

In addition to this basic fine, upon conviction, a person was fined \$0.03/lb. of excess weight. For the first violation in any calendar year, the court could suspend the fine for 500 lbs. of excess weight for each axle, not to exceed a 2,000 lb. suspension. In no case could the basic fine be suspended. The 1975-1976 laws increased the fine for the violation of a posted limitation to \$150 (Table 28).

TABLE 28. Fines for Violation of Weight Laws, 1975-1976

(1) Basic Fine:	
First Conviction	\$50 or more
Second Conviction	\$75 or more; possible suspension 30 days or less
Third Conviction	\$100 or more; at least 30 day suspension
(2) Additional Fine:	
\$0.03/lb. of excess weight	

The laws of 1979 made it a traffic infraction instead of a misdemeanor for the violation of the weight laws. The word penalty was substituted for the word fine. The basic penalty schedule and additional penalty remained unchanged. There have been no changes in the basic penalty schedule or additional penalty schedule up to the present.

This historical review provides the data for a chronological examination of Washington's fee and fine structure. The fees for varying lengths of carriage and for differing extra legal loads are presented in Tables 29-31 and Figures 19-21 and 22-24 for selected times. These figures are presented in nominal values for each time period.

TABLE 29. Fees for a 30-mile Trip: Washington

YEAR	KIPS OF EXCESS WEIGHT			
	3	5	10	30
1947	\$ 5.00	\$ 5.00	\$ 10.00	\$ 50.00
1959	3.00	3.00	6.00	27.00
1967	1.50	1.50	3.00	13.50
1990	14.00*	14.00*	14.00*	18.90

*Minimum fee.

TABLE 30. Fees for a 100-mile Trip: Washington

YEAR	KIPS OF EXCESS WEIGHT			
	3	5	10	30
1947	\$ 10.00	\$ 10.00	\$ 20.00	\$ 100.00
1959	10.00	10.00	20.00	90.00
1967	5.00	5.00	10.00	45.00
1990	14.00*	14.00*	14.00	63.00

*Minimum fee.

TABLE 31. Fees for a 300-mile Trip: Washington

YEAR	KIPS OF EXCESS WEIGHT			
	3	5	10	30
1947	\$ 15.00	\$ 15.00	\$ 30.00	\$ 150.00
1959	30.00	30.00	60.00	270.00
1967	15.00	15.00	30.00	135.00
1990	21.00	21.00	42.00	189.00

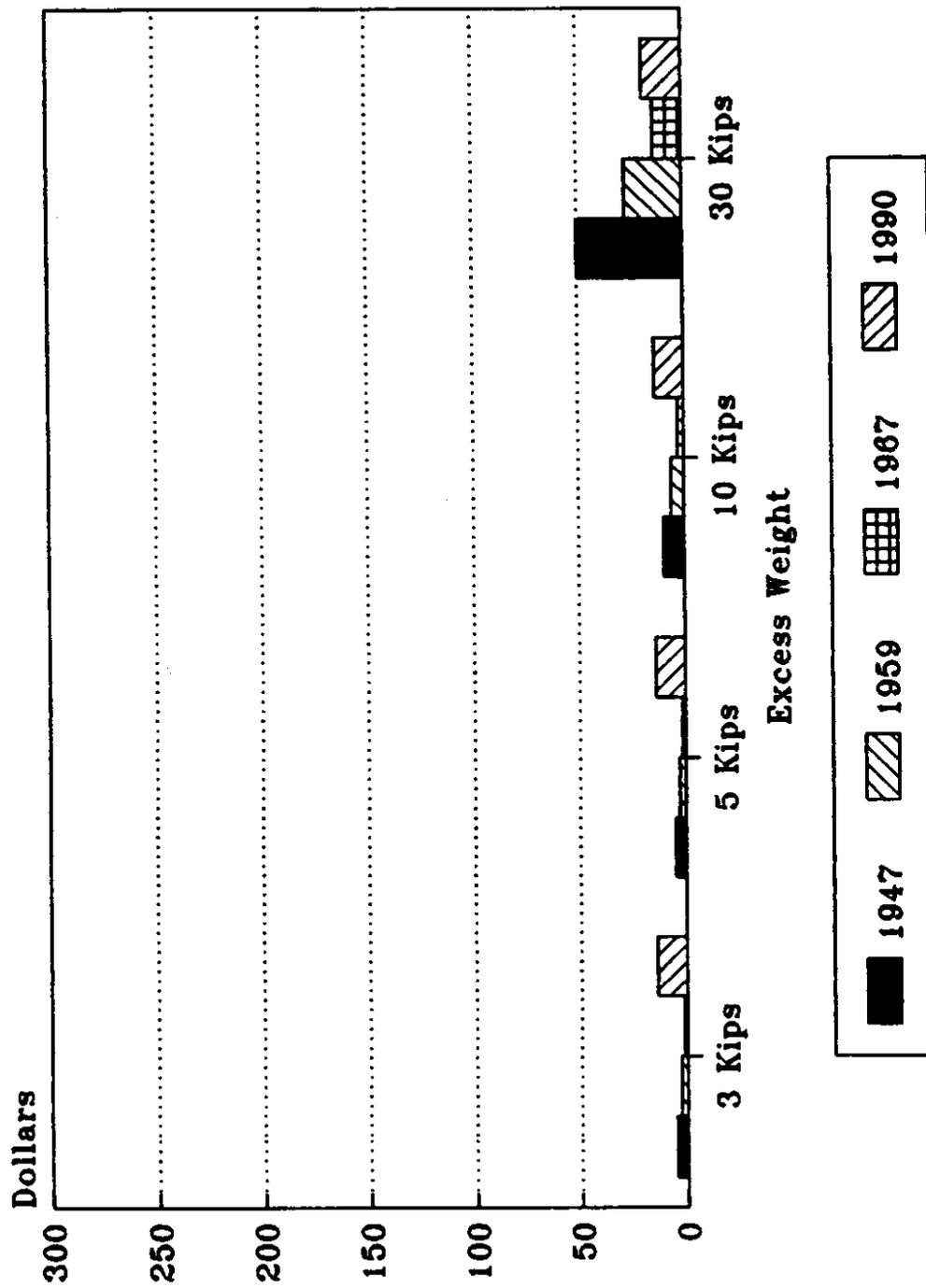


FIGURE 19. Washington: Permit Fees by Weight for 30-Mile Trip and Various Years

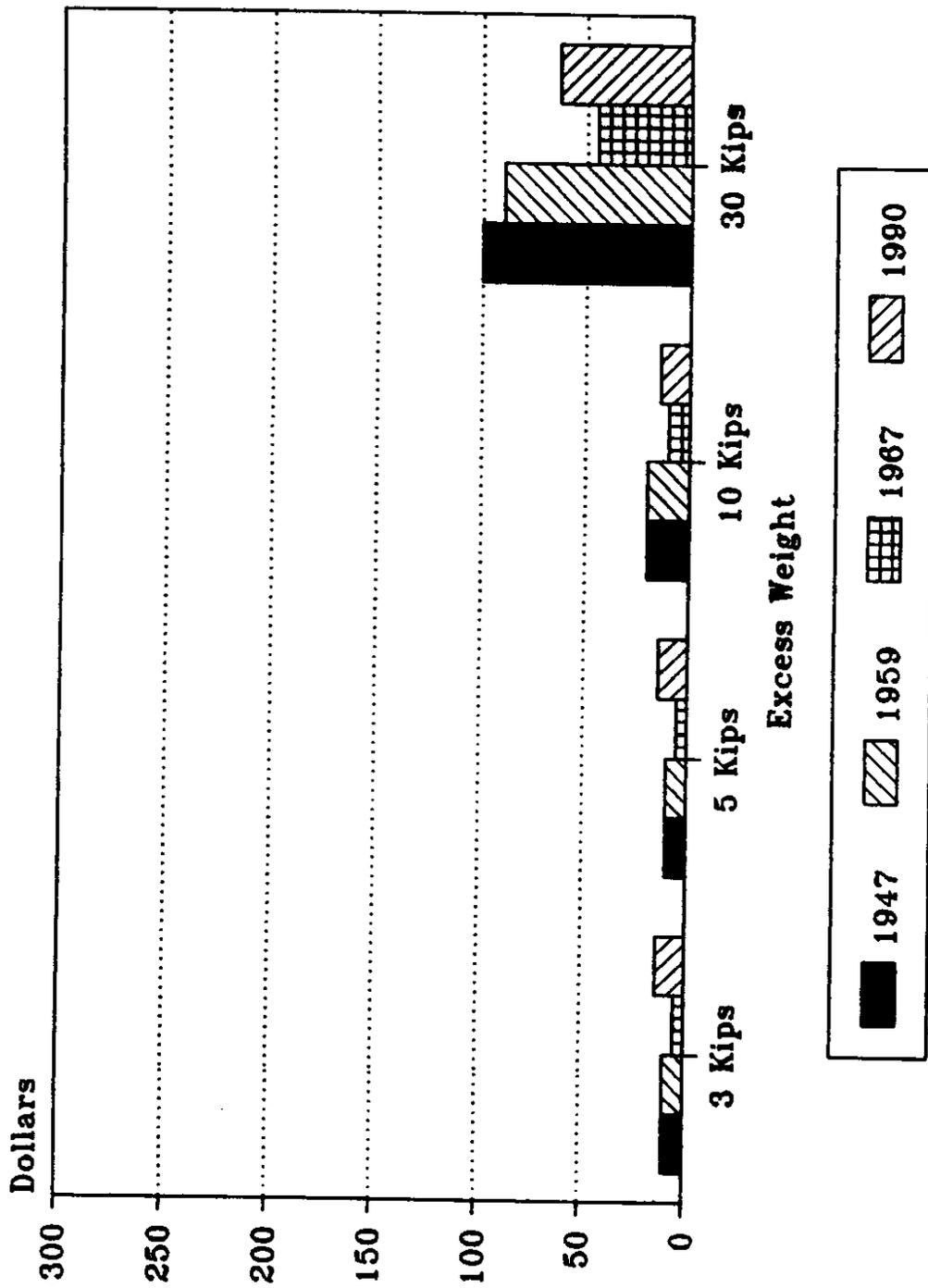


FIGURE 20. Washington: Permit Fees by Weight for 100-Mile Trip and Various Years

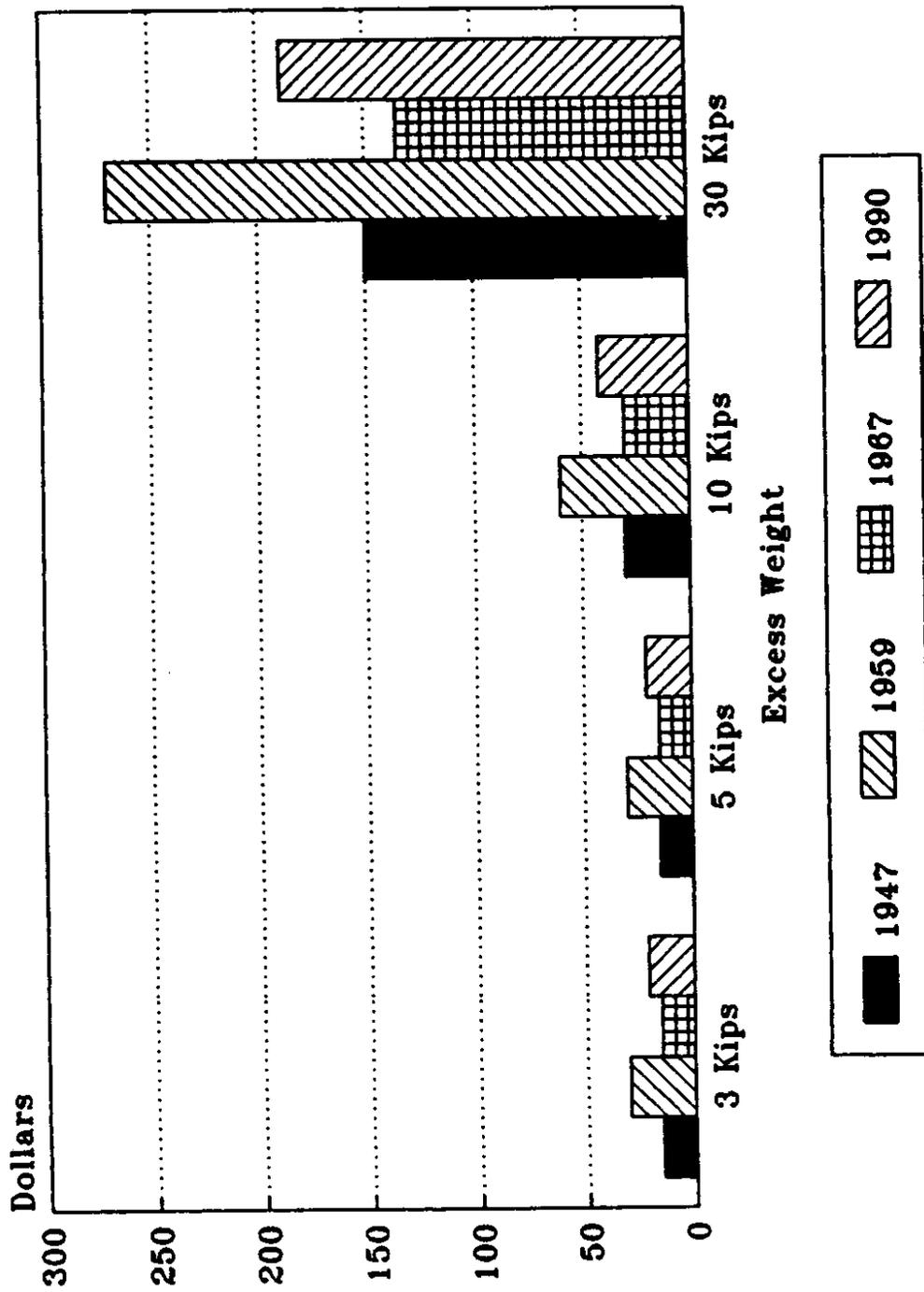


FIGURE 21. Washington: Permit Fees by Weight for 300-Mile Trip and Various Years

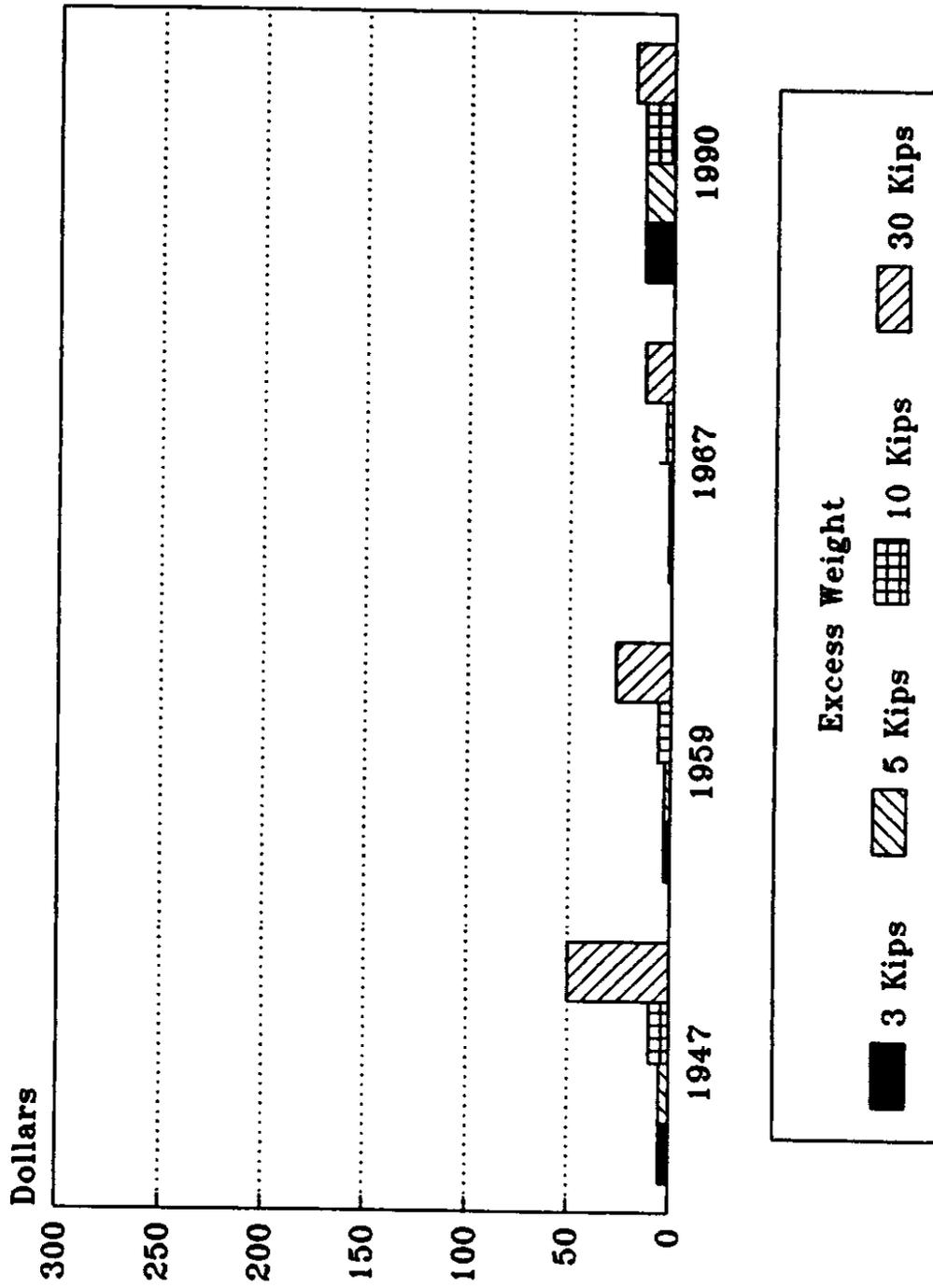


FIGURE 22. Washington: Permit Fees by Year for 30-Mile Trip and Various Weights

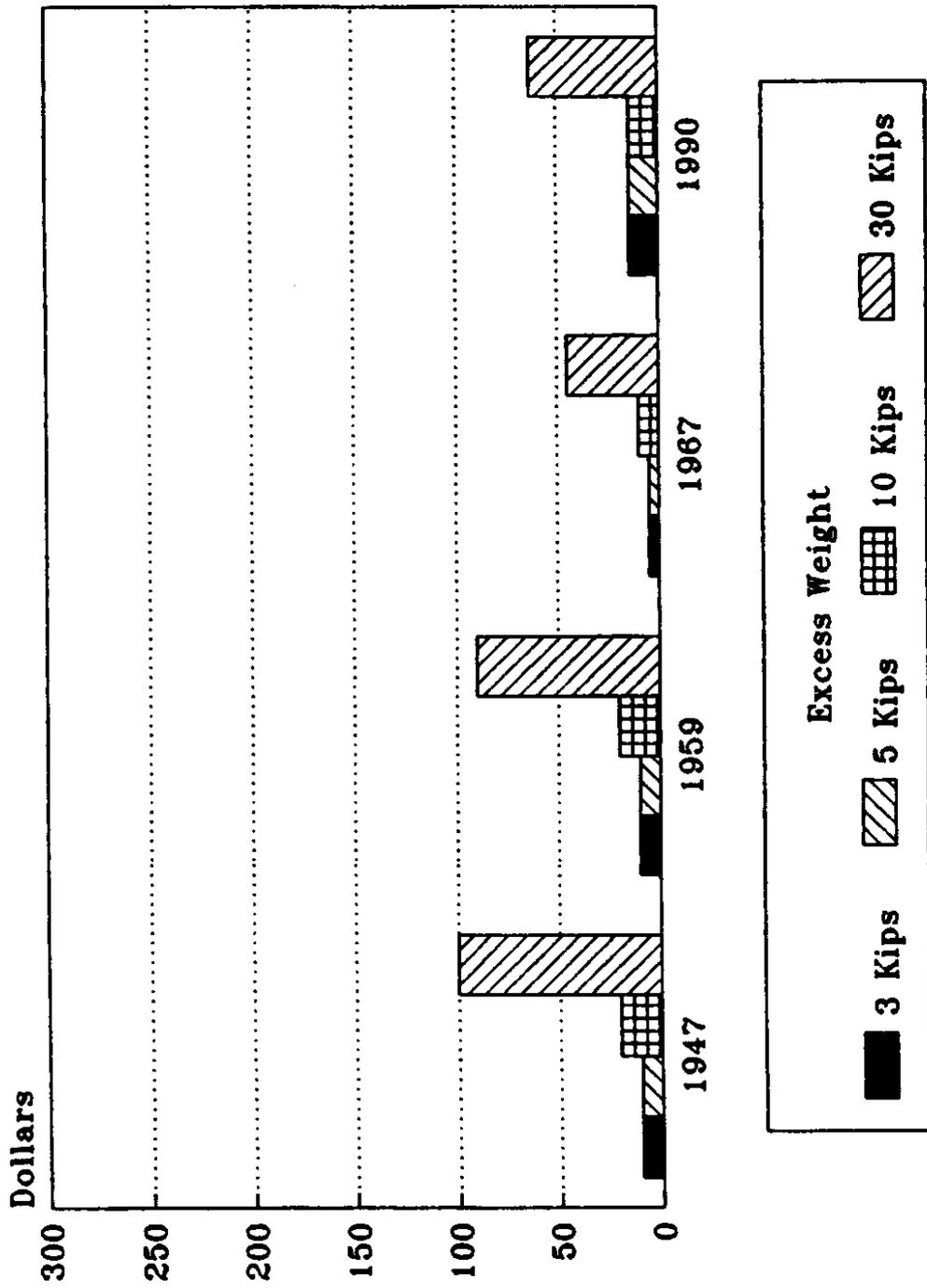


FIGURE 23. Washington: Permit Fees by Year for 100-Mile Trip and Various Weights

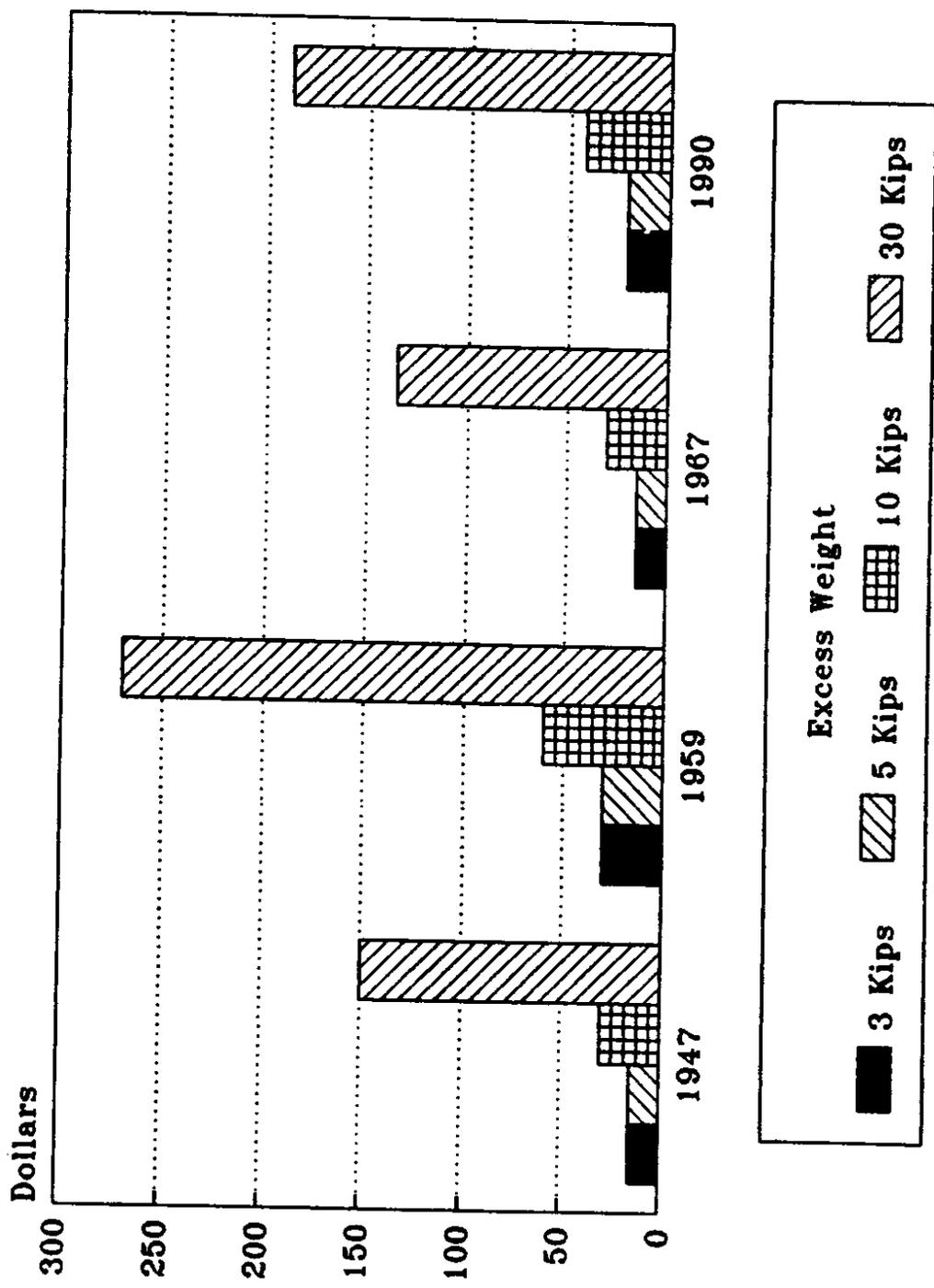


FIGURE 24. Washington: Permit Fees by Year for 300-Mile Trip and Various Weights

Although fees were increased by 40 percent in 1990 the fees are still substantially below, except for the 300 mile movement, the levels of the late 1960s. At the lighter overload levels there has been an increase in those fees over the 43 year period. Figures 19-21 and 22-24 dramatically and graphically reinforce those findings.

Examination of the fine structure is complicated by the "suspension of fine" provision in the 1959 to present legislation. The results of different assumptions are presented in Tables 32 and 33 and Figures 25 and 26. Table 32 presents the fines prior to the suspension of the first 5,000 lbs. of overload, followed by Table 33 which allows for that suspension. The tables are based on the premise that the conviction is the first, the fine or basic penalty is the minimum amount, and the suspended fines are for the maximum amount of weight allowable under the legal statute. The inclusion of the fine suspension is particularly noticeable at the lower weights but still has some impact at most levels. The differences are first apparent in 1959, as expected, when this legislation was introduced for the time.

TABLE 32. Overweight Fines Without Fine Suspensions: Washington

YEAR	KIPS OF EXCESS WEIGHT			
	3	5	10	30
1947	\$ 25.00	\$ 25.00	\$ 20.00	\$ 25.00
1959	85.00	175.00	425.00	1225.00
1967	85.00	175.00	425.00	1225.00
1990	140.00	200.00	350.00	950.00

ASSUMPTIONS: First conviction
Minimum basic penalties

TABLE 33. Overweight Fines With Fine Suspensions: Washington

YEAR	KIPS OF EXCESS WEIGHT			
	3	5	10	30
1947	\$ 25.00	\$ 25.00	\$ 20.00	\$ 25.00
1959	25.00	175.00	425.00	1,225.00
1967	25.00	25.00	175.00	1,025.00
1990	80.00	140.00	290.00	890.00

ASSUMPTIONS: First conviction
 Minimum basic penalties
 5,000 lb. weight suspension in 1967
 2,000 lb. weight suspension in 1990

In both cases, the fine has decreased since 1959, dropping, for a 30 Kip extra legal load, from \$1,225 in 1959 to either \$950 or \$890. Only at the 3 or 5 Kip overload was there an increase in the nominal level of fine.

The data underlying Figures 27-30 allow a comparison of the fee and fine values for various overloads over the years. This is particularly important because truckers, as they make their business decisions, can be expected to weigh the certainty of the costs of a fee versus the probability of a fine, if caught overloaded (this issue again receives attention later in this report).

In 1959 the relationship between fees and fines was significantly changed from 1947, with fines increasing dramatically. This relationship is still maintained in 1991, even with the 40 percent increase in fees in 1990.

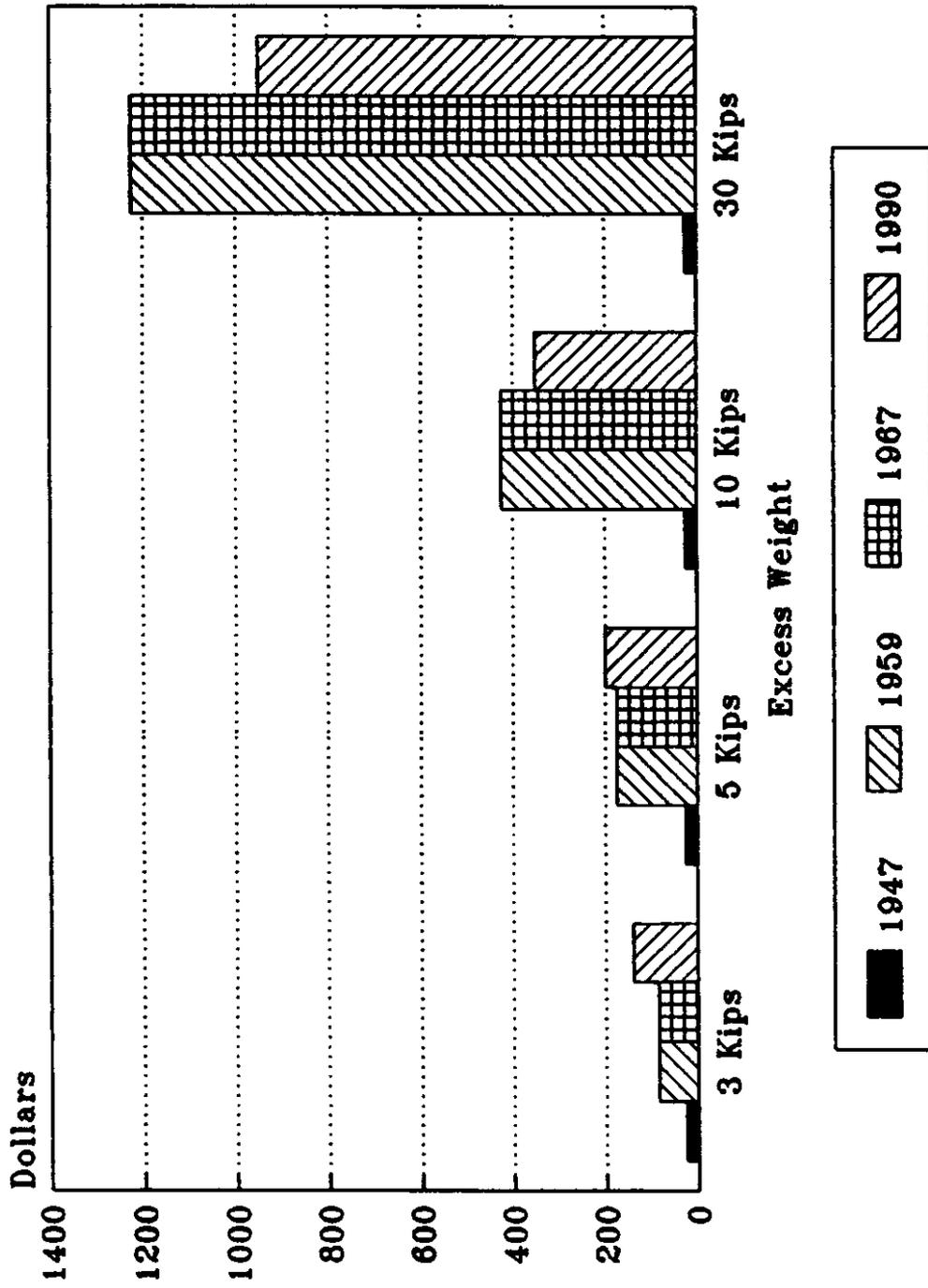


FIGURE 25. Washington: Overweight Fines for Various Years with No Suspensions

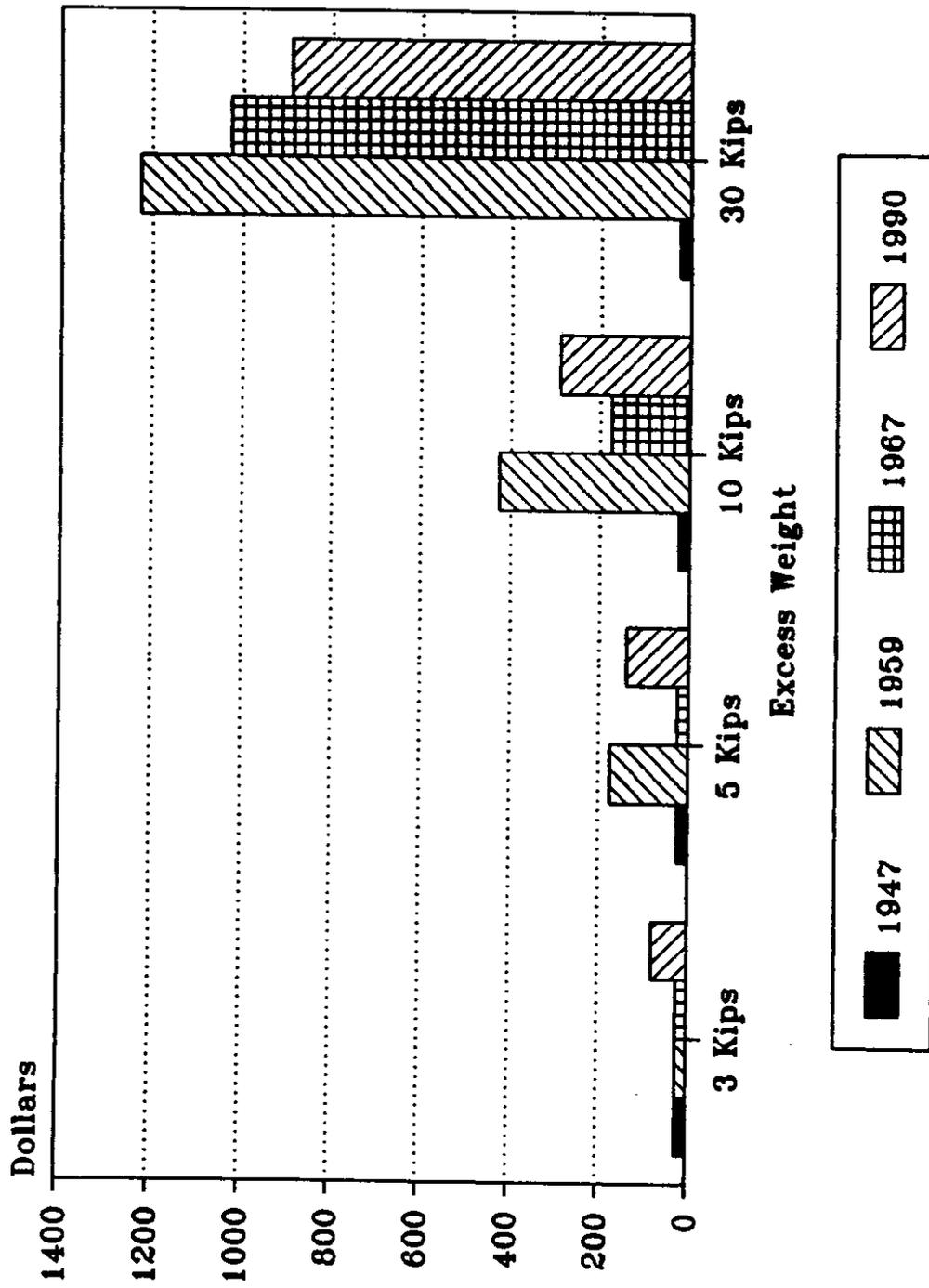


FIGURE 26. Washington: Overweight Fines for Various Years With Suspensions

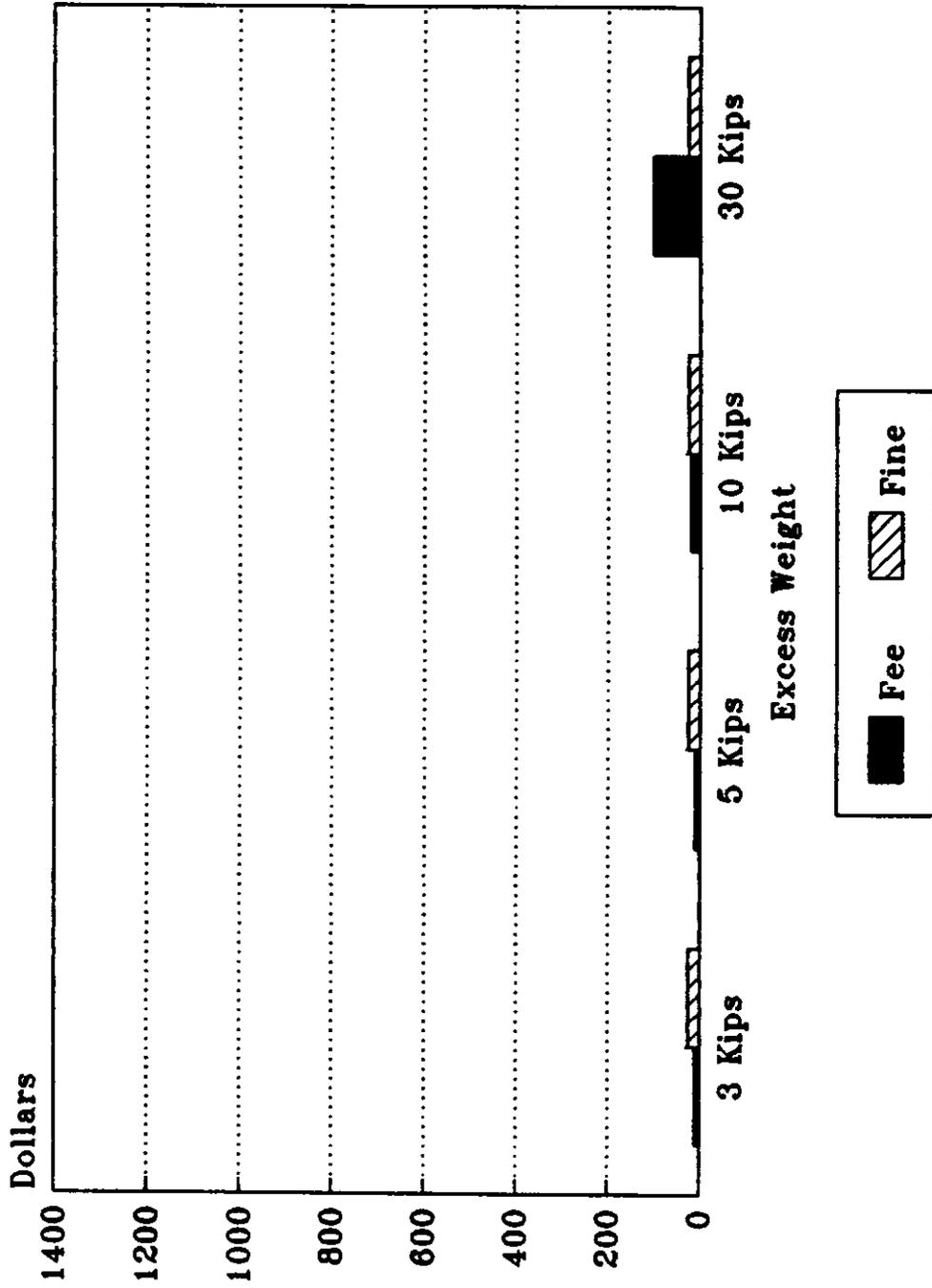


FIGURE 27. Washington: Fees and Fines for 100-Mile Trip with Various Weights, 1947

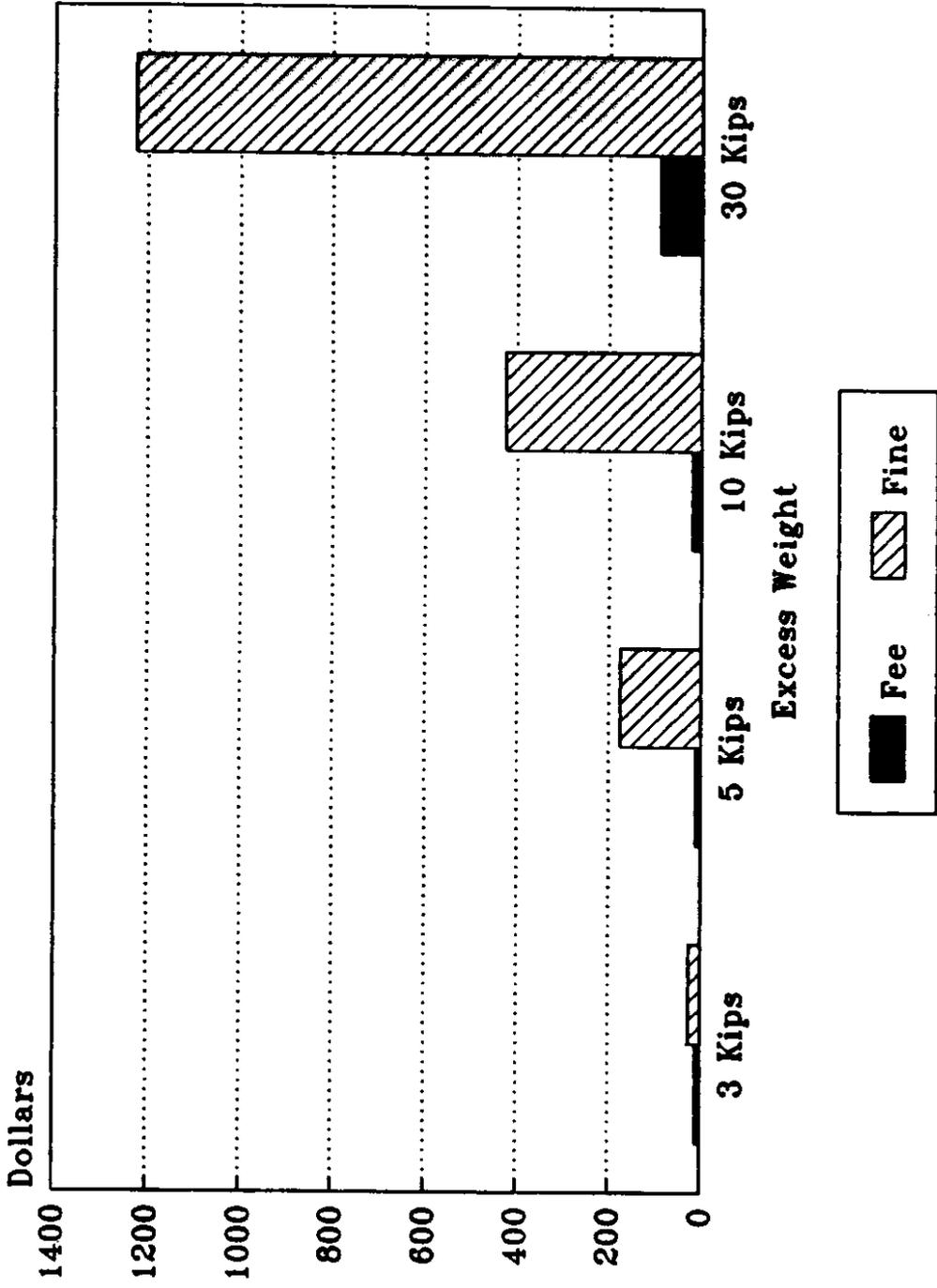


FIGURE 28. Washington: Fees and Fines for 100-Mile trip with Various Weights, 1959

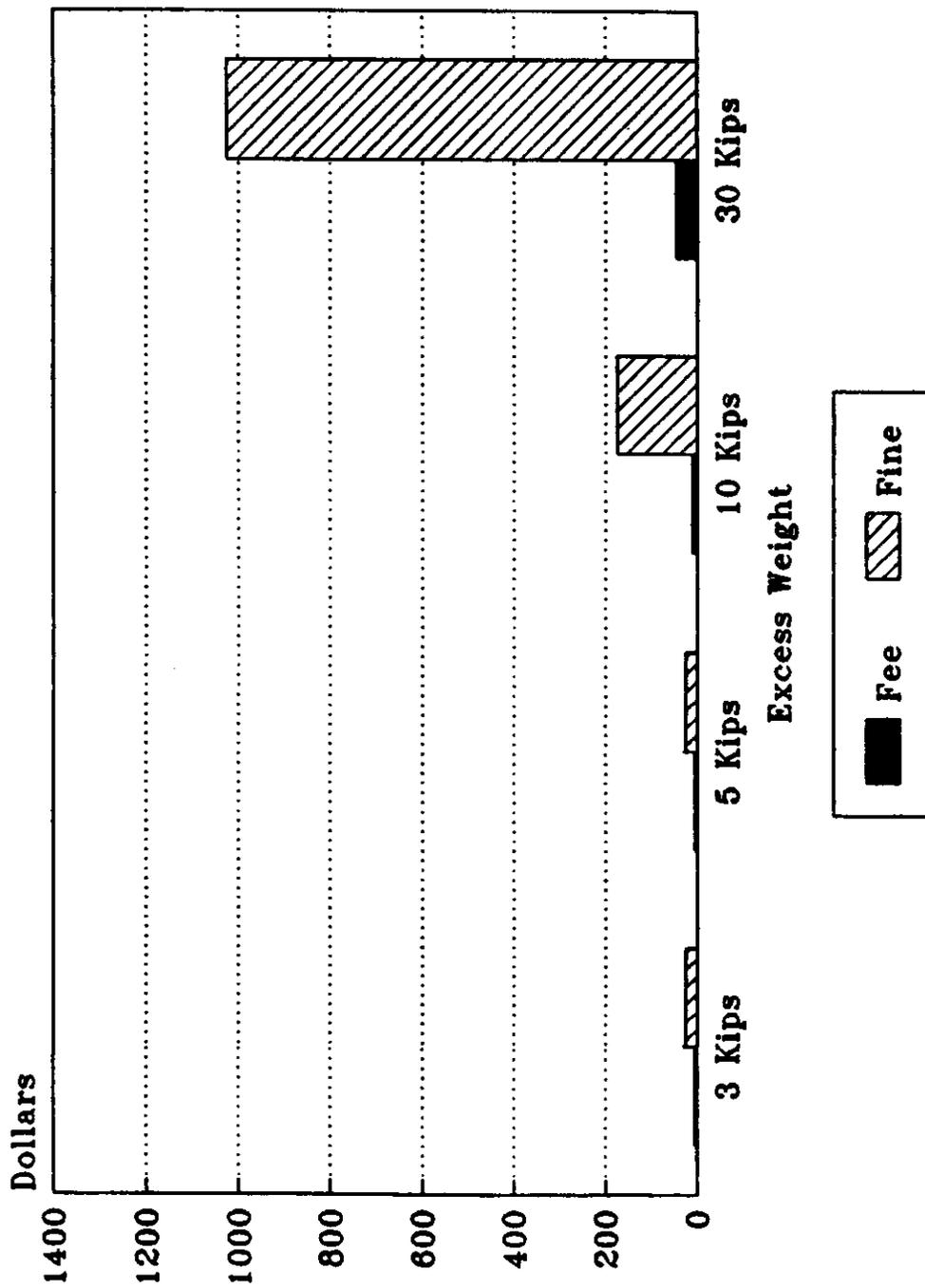


FIGURE 29. Washington: Fees and Fines for 100-Mile trip with Various Weights, 1967

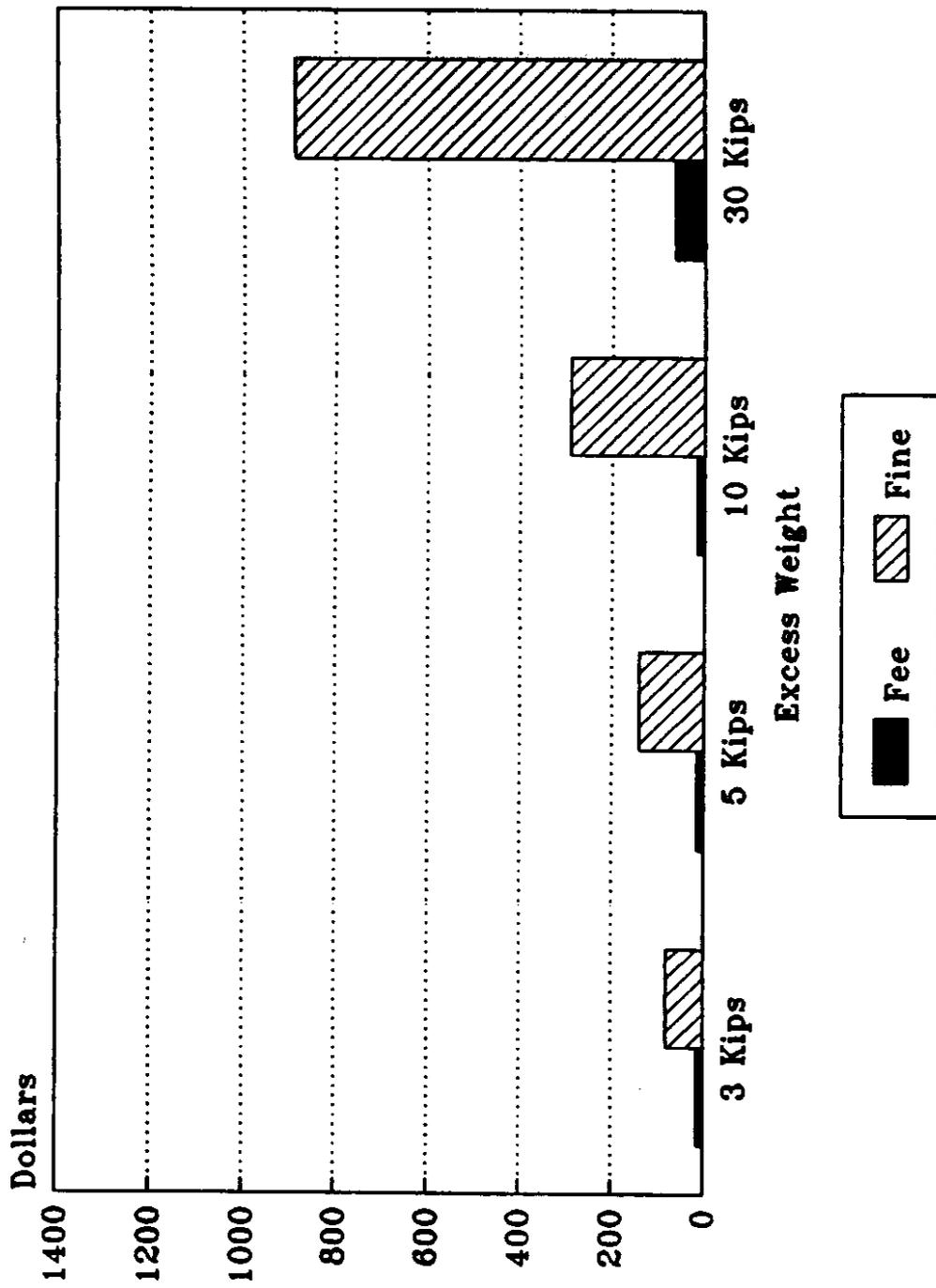


FIGURE 30. Washington: Fees and Fines for 100-Mile trip with Various Weights, 1990

Fees and Fines Adjusted for Inflation

The fees and fines detailed in earlier analyses were deflated by the CPI to determine the real value of each penalty or permit (Tables 34-36 and Figures 31-34), with 1985 as a base. The overwhelming conclusion is of the wasting away or erosion of the dollar impact of each or any of these fee values. Relative to the administrative costs or road damage reconstruction costs this revenue is quickly and comprehensively losing ground. The dramatic shift in fees, between years, is also dramatically shown by comparing Figures 35 and 36. The present 1990 figures drop to the lowest value in real terms although in nominal values only 1959 is larger.

TABLE 34. Washington State Fees Adjusted for Inflation: 30 Mile Trip

YEAR	3,000 LBS.	5,000 LBS.	10,000 LBS.	30,000 LBS.
1947	\$ 24.04	\$ 24.04	\$ 48.08	\$ 240.38
1959	11.07	11.07	22.14	99.63
1967	4.84	4.84	9.68	43.55
1990	11.53	11.53	11.53	15.57

NOTE: 1985 prices.

TABLE 35. Washington State Fees Adjusted for Inflation: 100 Mile Trip

YEAR	3,000 LBS.	5,000 LBS.	10,000 LBS.	30,000 LBS.
1947	\$ 48.08	\$ 48.08	\$ 96.15	\$ 480.77
1959	36.90	36.09	73.80	332.10
1967	16.13	16.13	32.26	145.16
1990	11.53	11.53	11.53	51.89

NOTE: 1985 prices.

TABLE 36. Washington State Fees Adjusted for Inflation: 300 Mile Trip

YEAR	3,000 LBS.	5,000 LBS.	10,000 LBS.	30,000 LBS.
1947	\$ 72.12	\$ 72.12	\$ 144.23	\$ 721.15
1959	110.70	110.70	221.40	996.31
1967	48.39	48.39	96.77	435.48
1990	17.30	17.30	34.60	155.68

NOTE: 1985 prices.

Results similar to the fee analysis are shown in the fine values detailed in Tables 37 and 38. Regardless of whether suspension occurs or not, there is steady erosion of the purchasing power of the revenue generated by these penalties. Figures 35-38 once again graphically depict this erosion of net value of the fines or penalties.

TABLE 37. Washington State Fines Adjusted for Inflation: No Penalty Suspension

YEAR	3,000 LBS.	5,000 LBS.	10,000 LBS.	30,000 LBS.
1947	\$ 120.19	\$ 120.19	\$ 120.19	\$ 120.19
1959	313.65	645.76	1,568.27	4,520.30
1967	274.19	564.52	1,370.97	3,951.61
1990	115.32	164.74	288.30	782.54

TABLE 38. Washington State Fines Adjusted for Inflation: With Penalty Suspension

YEAR	3,000 LBS.	5,000 LBS.	10,000 LBS.	30,000 LBS.
1947	\$ 120.19	\$ 120.19	\$ 120.19	\$ 120.19
1959	92.25	645.76	1,568.27	4,520.30
1967	80.65	80.65	564.52	3,306.45
1990	65.90	115.32	238.88	733.11

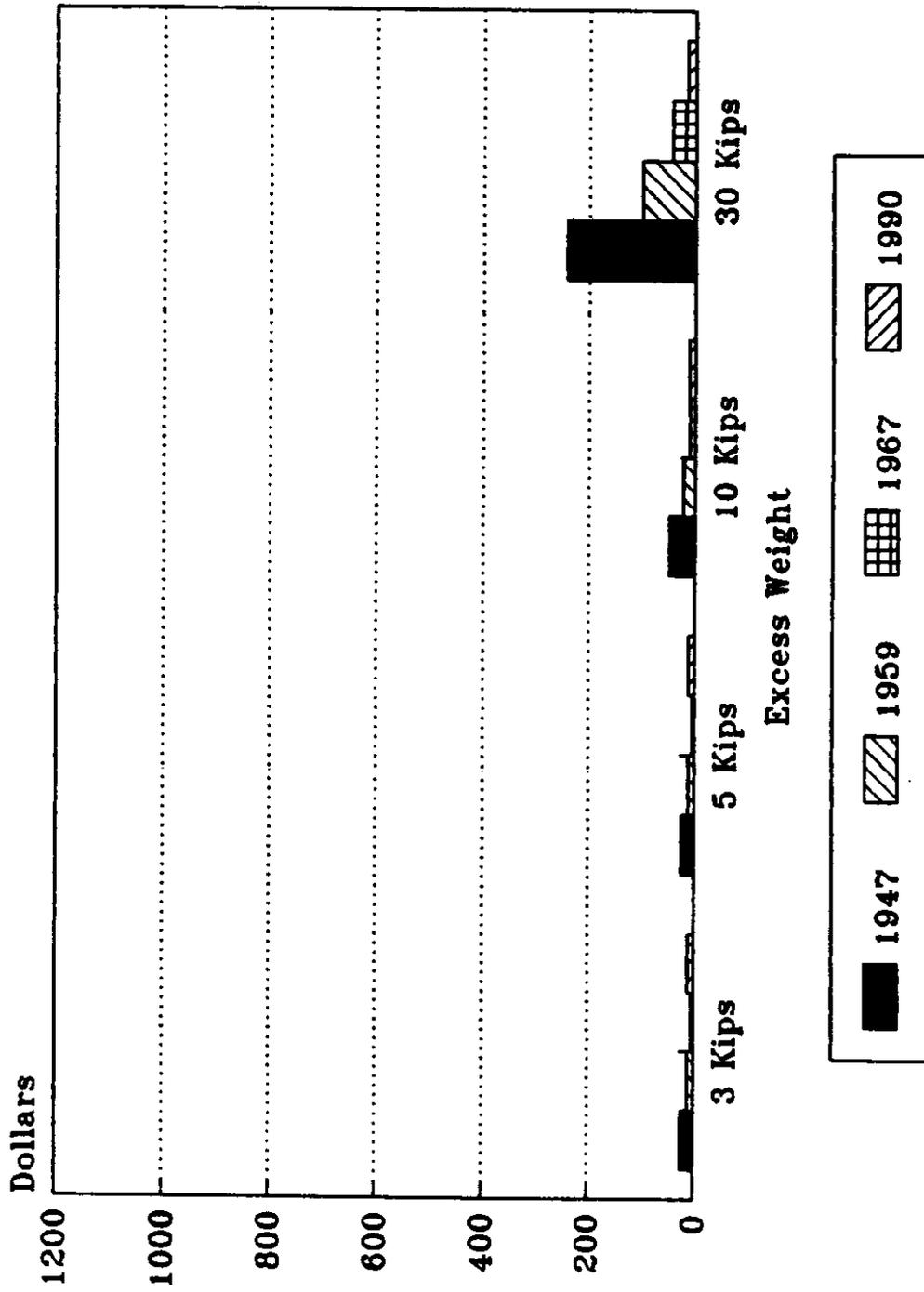


FIGURE 31. Washington Fees for 30-Mile Trip by Weight in 1985 Dollars

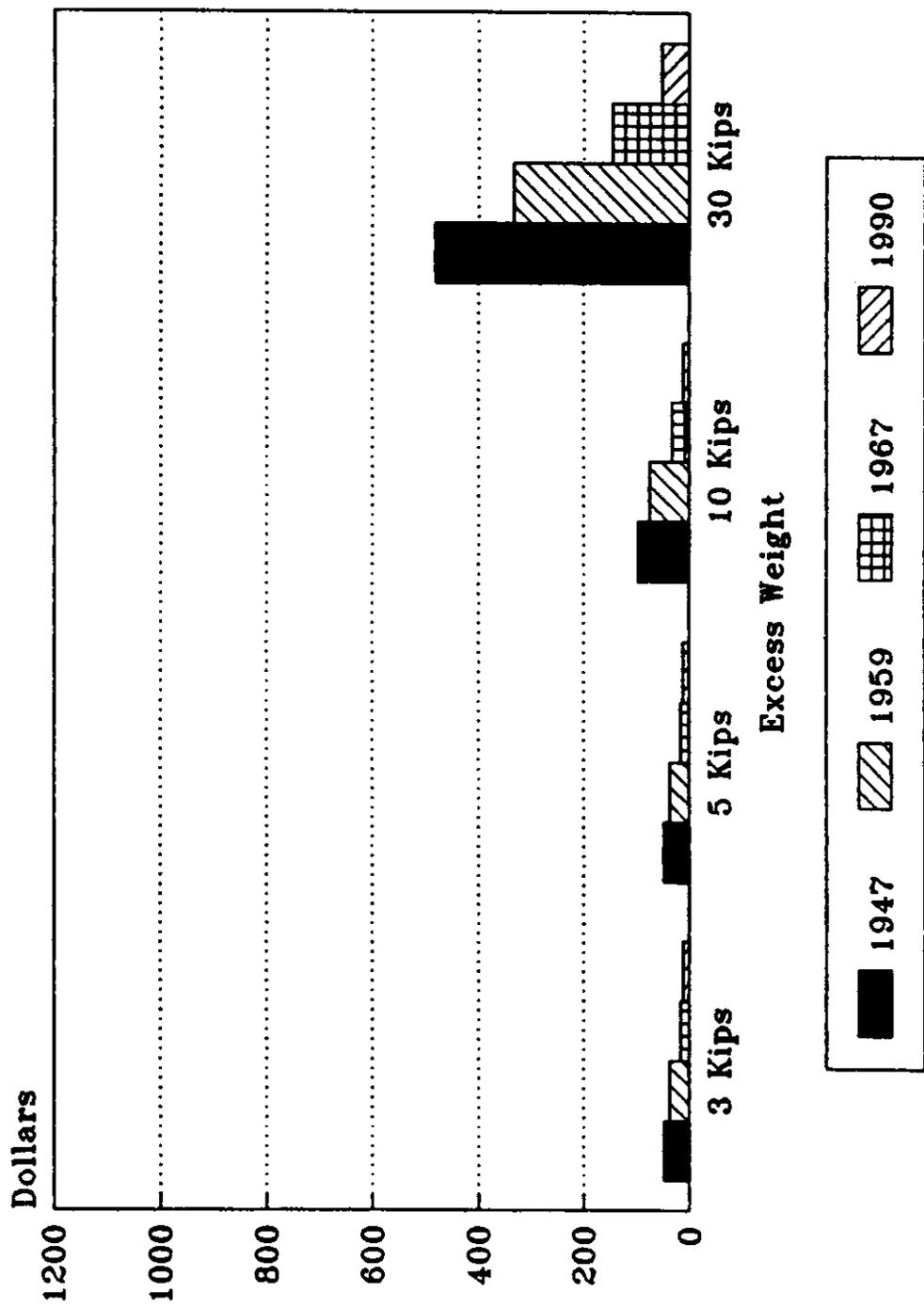


FIGURE 32. Washington Fees for 100-Mile Trip by Weight in 1985 Dollars

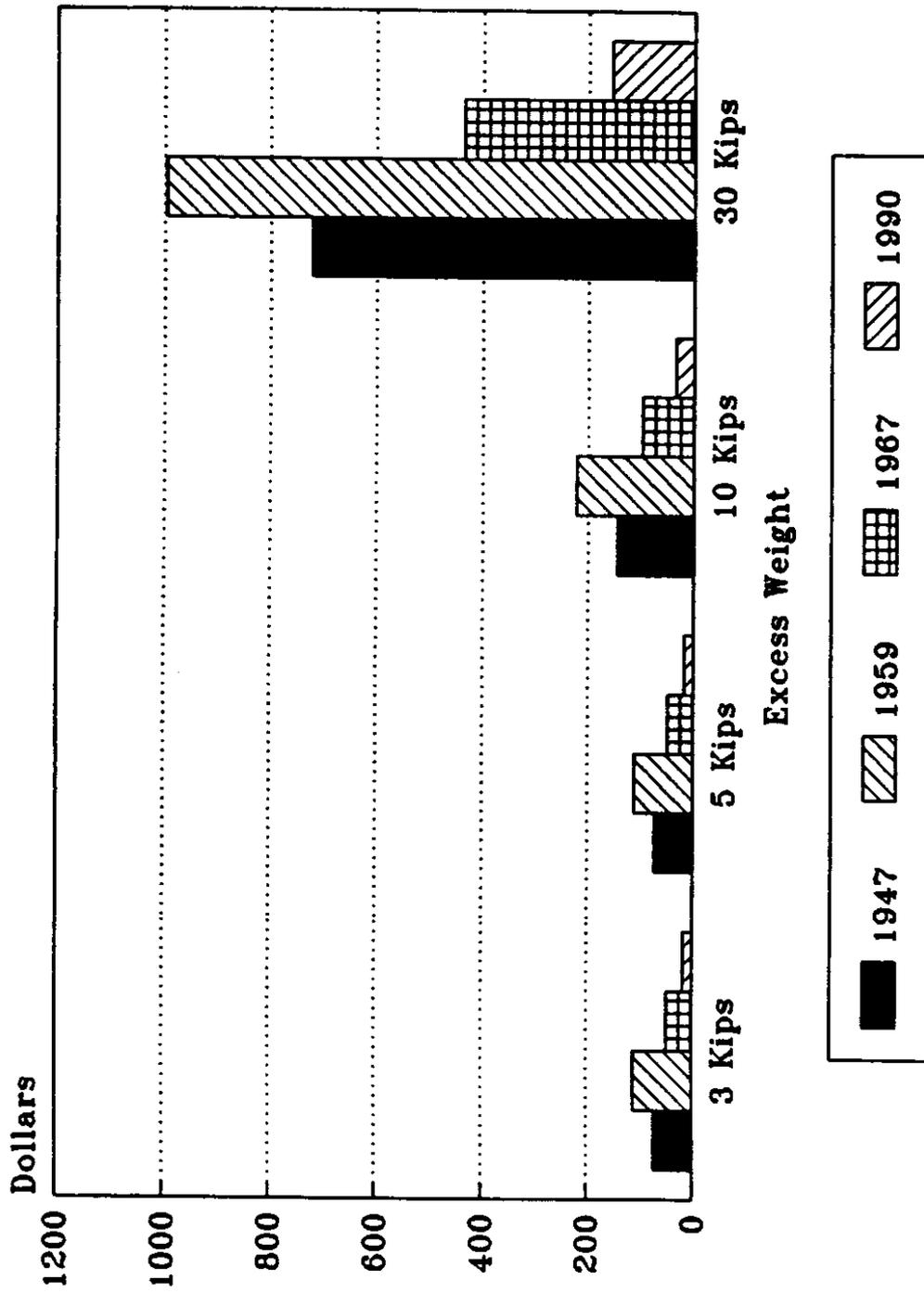


FIGURE 33. Washington Fees for 300-Mile Trip by Weight in 1985 Dollars

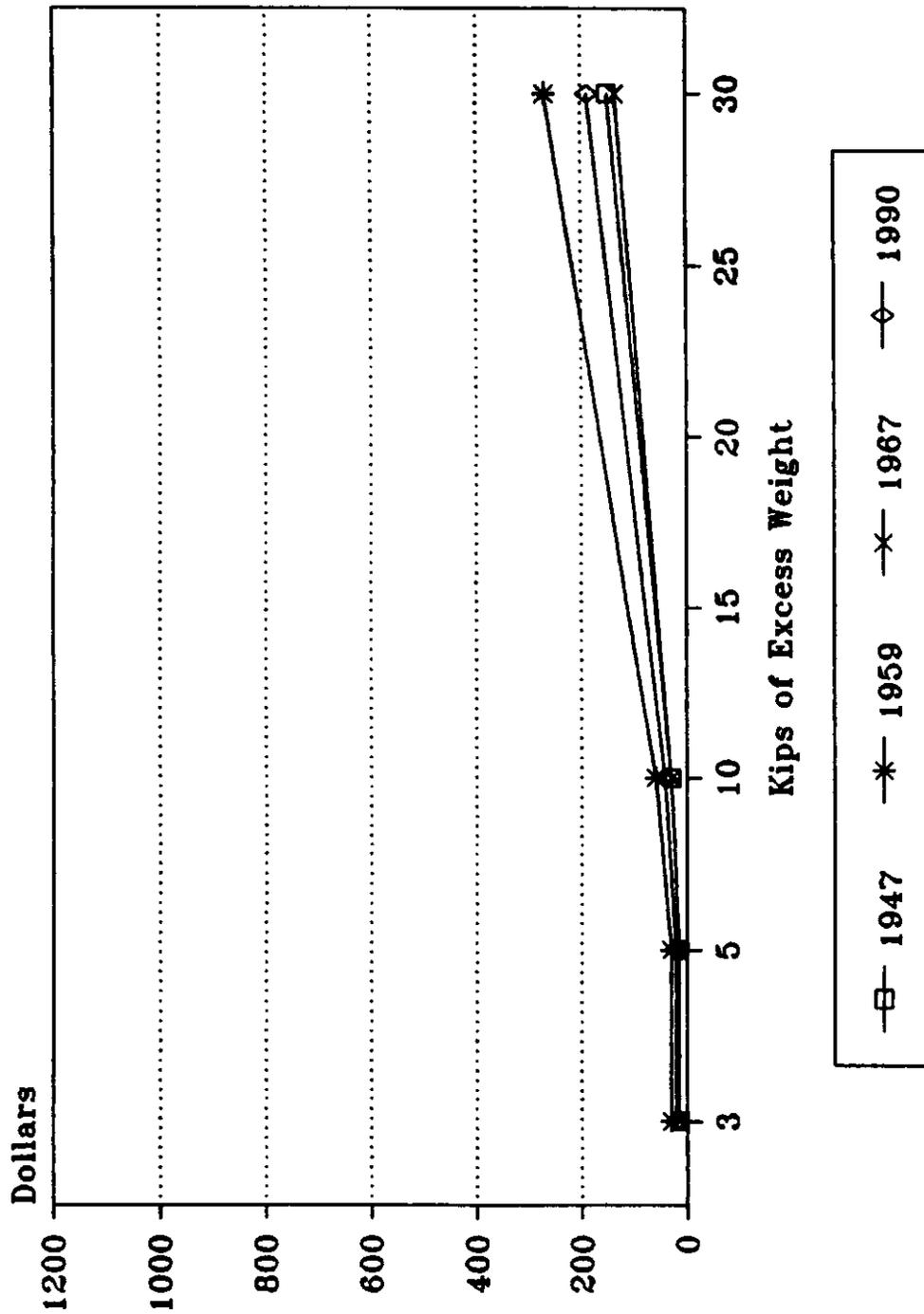


FIGURE 34. Washington: Permit Fees by Weight for 300-Mile Trip, Nominal Values

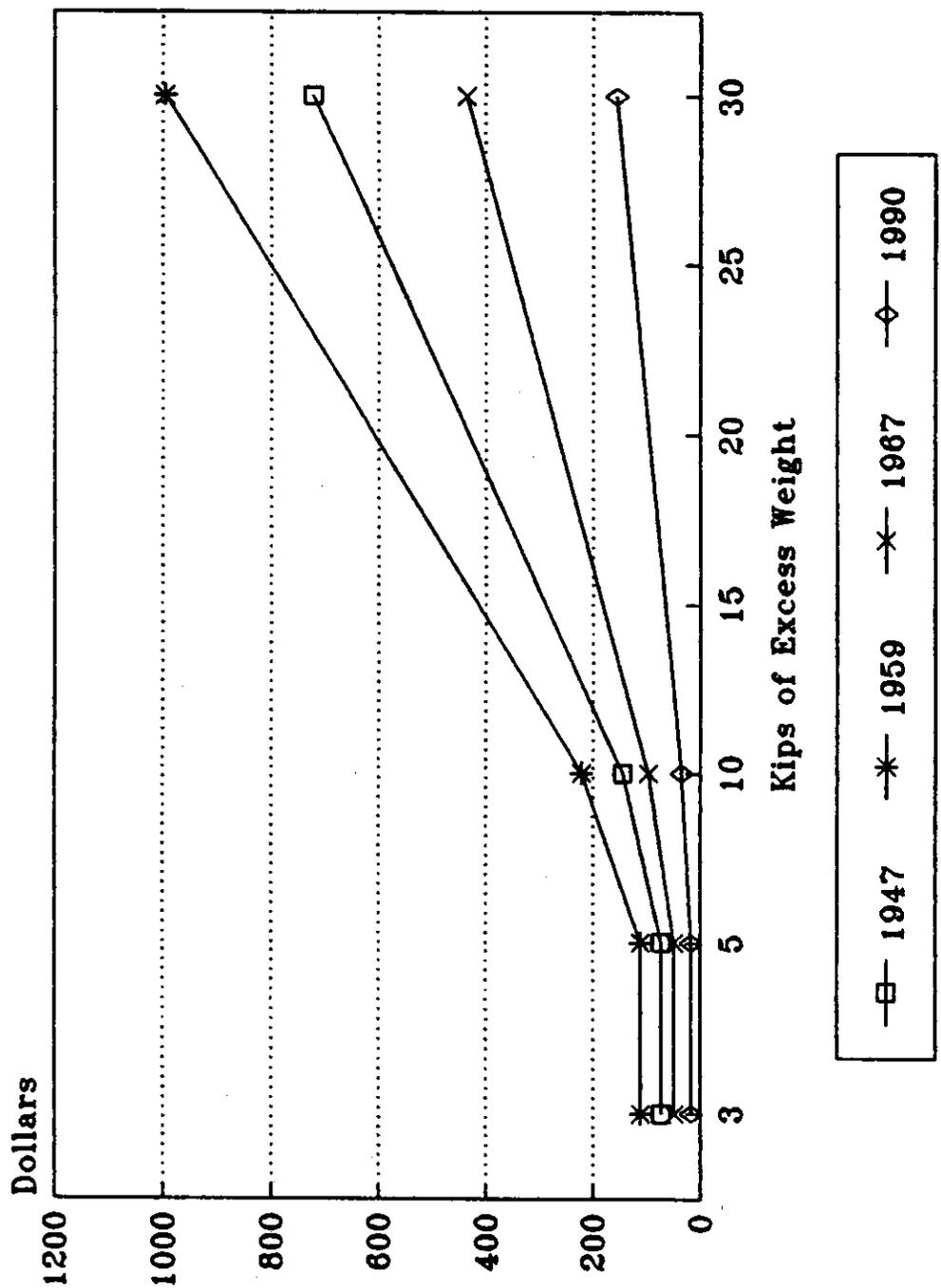


FIGURE 35. Washington Fines by Weight in 1985 Dollars: With No Penalty Suspensions

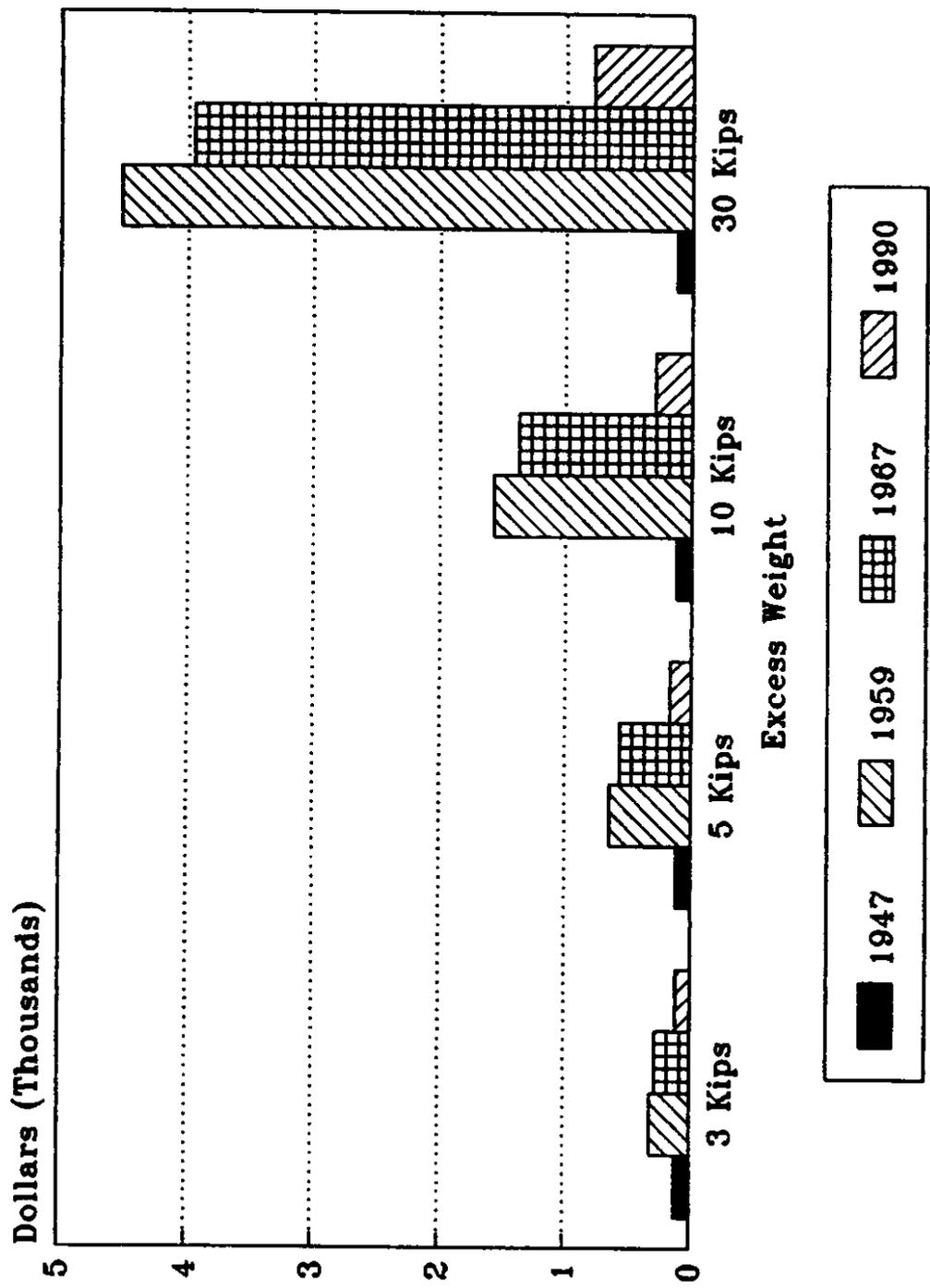


FIGURE 36. Washington Fines by Year in 1985 Dollars: With No Penalty Suspensions

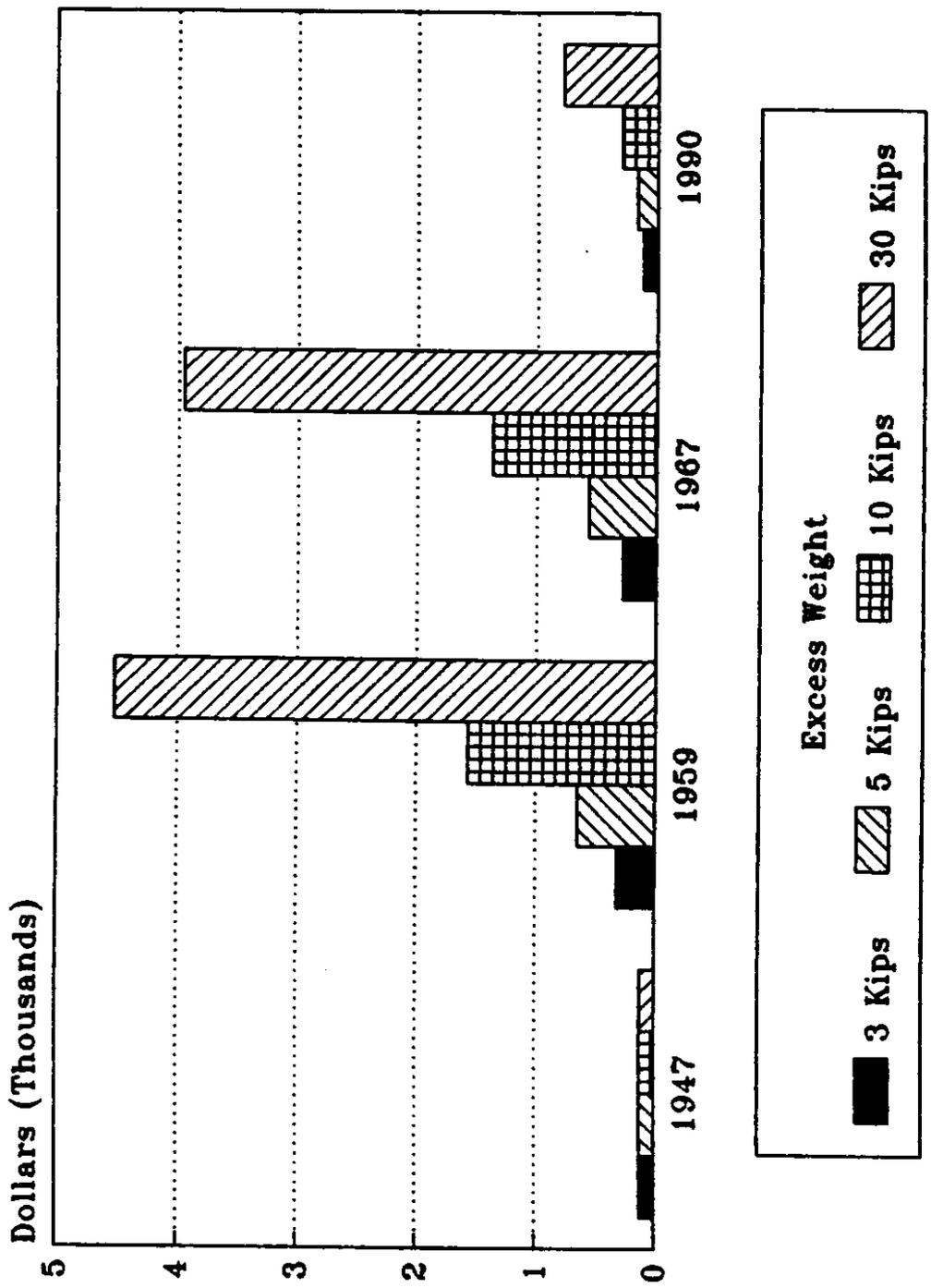


FIGURE 37. Washington Fines by Weight in 1985 Dollars: With Penalty Suspensions

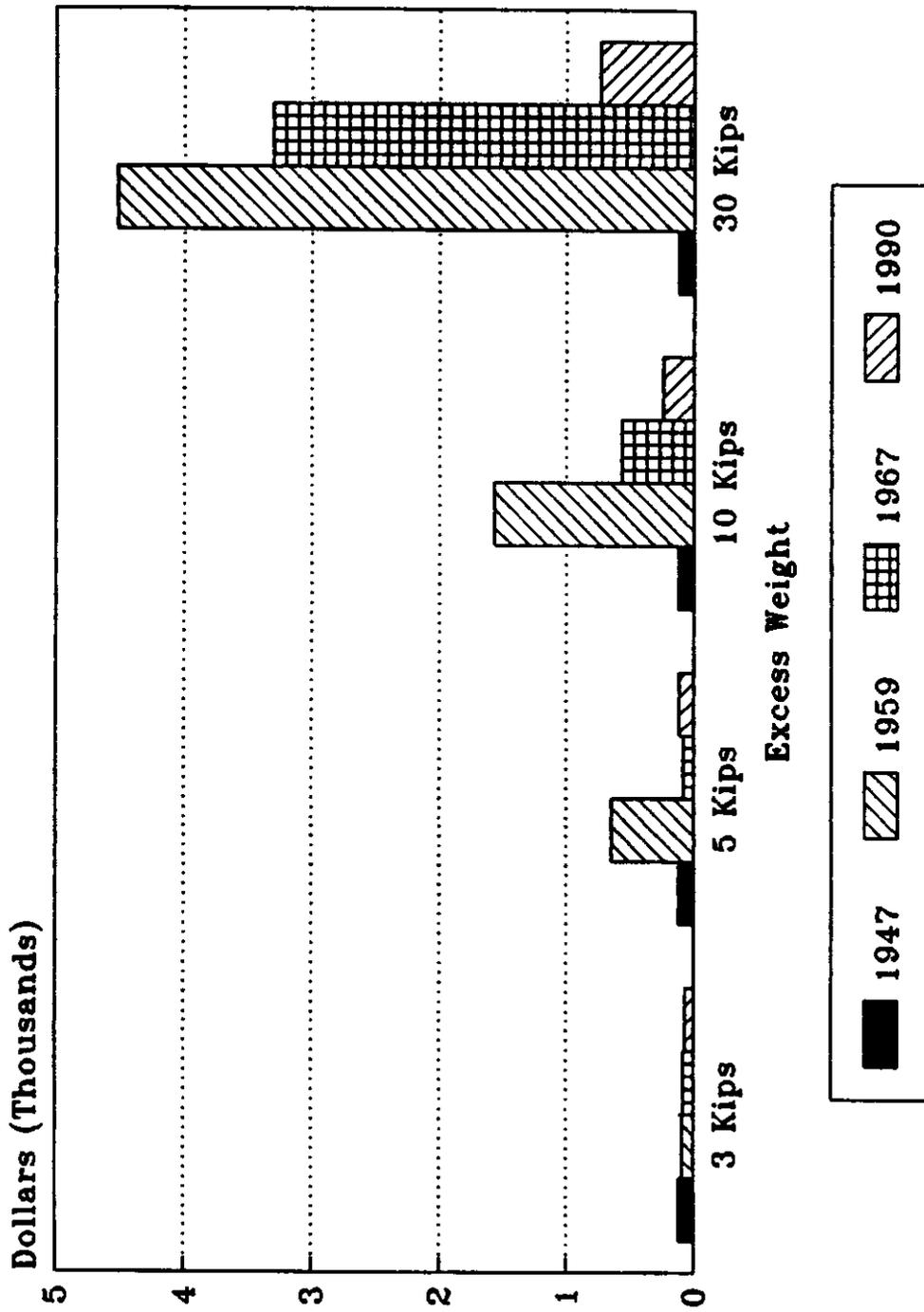


FIGURE 38. Washington Fines by Year in 1985 Dollars: With Penalty Suspensions

Effectiveness and Equity of Washington Fine and Fee Structure

To test the effectiveness of the overweight fine and fee system in Washington in either deterring overweight movements or recovering damage caused by such movements it was necessary to determine the potential damage to roads at various Kip mile combinations and the economic incentive to overload for each Kip mile combination. These are then compared to the fee and/or fine associated with each movement. Equity considerations involve comparing, across distance and weight, the relationship amongst these variables.

Comparative Analysis

The economic incentive to overload arises from the cost savings associated with the extra legal weight. As vehicle weight increases, some item costs may increase but the average cost per unit hauled decreases. In this analysis the cost per ton mile was derived by dividing the cost per loaded mile by the payload. This was then converted to cost per Kip mile by putting it on a 1,000 lbs. basis. Then, for each distance/Kip combination resultant Kip miles were multiplied by the cost per Kip mile.

The cost per running mile, including fixed and variable costs (essentially long run average costs) were assumed to be \$1.10 per running mile, based on updates of earlier studies done by this author, and ATA reported data on various truck configurations and products. The recent Truck Weight Limit study utilized \$1.15 per mile, reasonably close to this estimate. The payload was assumed to be 25 tons or 50 Kips and, due to the longer haul nature of some of the product movements in Washington, 10 percent empty

mileage was figured. This resulted in a \$1.21 per loaded mile cost estimate which, when divided by the payload of 25 tons, yielded a ton-mile cost of \$.0484. On a Kip mile basis this resulted in \$.0242 cost estimates. The results assume, somewhat simply, no additional expenses are incurred by the vehicle as load weight increases.

To test the sensitivity of the above assumptions an alternative scenario was costed. Assumptions of \$1.15 per running mile, a payload of 26 tons and an empty mileage experience of 15 percent resulted in a loaded mile cost of \$1.33, a ton-mile cost of \$.051 and a Kip mile cost of \$.0256. This was only about a 5 percent deviation from the earlier cost estimate so the original cost estimate was retained. These cost estimates result in cost savings (benefits to truckers) per Kip mile combination as identified in Table 39.

TABLE 39. Economic Incentive for Washington Truckers to Overload

	KIPS OVERWEIGHT			
	3	5	10	30
30 Miles	\$ 2.18	\$ 3.63	\$ 7.26	\$ 21.78
100 Miles	7.26	12.10	24.20	72.60
300 Miles	21.78	36.30	72.60	217.80

Costs to society of this overloading activity arise because of the damage to the infrastructure caused by the overloaded vehicle. Numerous studies (see References) are in the literature dealing with estimates of the cost of such overloads to society.

Pavement deterioration models or damage functions serve as the means to estimating the financial magnitude of overloading. These functions relate the decline in

pavement serviceability to the traffic or axle passes. The general relationship is expressed by:

$$D = (\#/N)^B$$

where D = index of pavement serviabiity

$\#$ = number of passes of an axle group of specified weight

N = number of passes of the axle weight configuration before serviability reaches zero

B = shift coefficient

The change in D is a reflection of the impact of weight (overloads) on the pavement condition (see Tolliver). This general function was translated in the AASHO studies conducted in 1958 and 1960 to the following general form: $D = KX$ (axle load)⁴ where K = number of axles. The effect of this fourth-power function is to create tremendous increases in damage as the axle loading increases. This test has been attacked in many fashions; most complaints suggest the 4th power function is too large in magnitude because it ignores the effect of environment, tire pressure, etc.

Accordingly, a modified power function was used to estimate the damage associated with overloaded vehicles. The economic or financial impact was derived from Washington studies of 80,000 lbs. vehicles (see Casavant and Lenzi) and the cost of reconstruction associated with varying traffic levels, as projected by the Washington Pavement Management System (in that study actual expenditures were found to closely approximate the PMS estimates). Those case studies yielded estimates of damage per ton-mile ranging on state highways of 1 to 6 cents; county road costs were 50 percent

higher. A weighted average of 5 cents per ton mile, determined in that study, was updated to 1990, resulting in a base cost of \$.05275 per ton-mile at the 80,000 weight. Since, as the payload per vehicle increases, the number of axle passes decreases to move a given volume of product, the function was modified to yield the results in Table 40. It is realized that these estimates do not consider tire characteristics and use, pavement surface thickness, subgrade support, etc. They are simply generic representations, preliminary in nature, of the consumption of Washington's average roadway caused by overloaded vehicles. Higher quality roads could be expected to suffer less damage; such analyses are beyond these preliminary evaluations.

TABLE 40. Damage Estimates for Washington Highways

DISTANCE	KIPS			
	3	5	10	30
30 Miles	\$ 2.50	\$ 4.40	\$ 11.20	\$ 74.40
100 Miles	8.30	14.60	37.20	248.00
300 Miles	24.80	43.90	111.60	744.10

The comparative evaluation of these variables, fee-fine-damage-economic incentive, is presented in Tables 41-43. First consider the relationship between road damage estimates and the economic incentive to overload. It is very evident that in all cases the economic incentive is smaller than is the damage to roads, although given the preliminary nature of these estimates, the two variables are quite close at the lower overweight figures. Because of the power function for damage and the linear function for economic incentive the two estimates quickly diverge. This holds for all trip lengths, with the

divergence increasing in magnitude as trip distance increases. This indicates that any refinement of the damage function, while intuitively appealing, is not necessary for policy prescriptions.

TABLE 41. Comparative Evaluation, 30 Mile Movement, Washington Fees and Fines

	KIPS			
	3	5	10	30
Damage	\$ 2.50	\$ 4.40	\$ 11.20	\$ 74.40
Economic Incentive	2.20	3.60	7.30	21.80
Fee	14.00	14.00	14.00	18.90
Fine	140.00	200.00	350.00	950.00
Fee (4 State Average)*	14.10	14.20	14.40	16.60
Fine (4 State Average)*	70.00	141.30	682.50	2,737.50
Net Fine (10% Capture)	14.00	20.00	35.00	95.00

* Four states were Washington, Idaho, Oregon and California.

From the trucker's perspective there is no reason to overload for the 30 mile trip because the fee or fine is greater than the economic incentive. For the 100 mile distance, especially for the heavier overloads, it is in the trucker's best interest to overload and pay the fee, rather than risk the chance of being fined. At the 300 mile distance the trucker has the incentive to overload and pay the fine.

TABLE 42. Comparative Evaluation, 100 Mile Movement, Washington Fees and Fines

	KIPS			
	3	5	10	30
Damage	\$ 8.30	\$ 14.60	\$ 37.20	\$ 248.00
Economic Incentive	7.30	12.10	24.20	72.60
Fee	14.00	14.00	14.00	63.00
Fine	140.00	200.00	350.00	950.00
Fee (4 State Average)	16.70	17.00	17.50	32.00
Fine (4 State Average)	70.00	141.30	682.50	2,737.50
Net Fine (10% Capture)	14.00	20.00	35.00	95.00

TABLE 43. Comparative Evaluation, 300 Mile Movement, Washington Fees and Fines

	KIPS			
	3	5	10	30
Damage	\$ 24.80	\$ 43.90	\$ 111.60	\$ 744.10
Economic Incentive	21.80	36.30	72.60	217.80
Fee	21.00	21.00	42.00	189.00
Fine	140.00	200.00	350.00	950.00
Fee (4 State Average)	25.90	36.60	33.50	76.20
Fine (4 State Average)	70.00	141.30	682.50	2,737.50
Net Fine (10% Capture)	14.00	20.00	35.00	95.00

Consider next the relationship between the fee and fine levels. As expected from the legislative history developed earlier, the fine is far greater than the fee at any weight level and, even though the fine is not related to distance, even at longer movements it is still over 500 percent greater (5,000 percent at the shorter distances). If, and if is important, the probability of receiving a citation every time a trucker overloaded were equal to 1, the fine would quickly force profit maximizing trucking firms to move only under a paid fee basis. However this simply is not the case.

The fee, at the shorter distance, more than eliminates any economic incentive for the trucker to overload for the smaller overload weights. As the distance increases the existing Washington fee does seem to track the economic incentive quite well, capturing most of that cost savings and probably eliminating the damage that would have occurred. It does appear that, with a small adjustment to supplement the 40 percent increase in 1990, the Washington legislature could eliminate much of the road damage -- at least based on these preliminary figures.

But, the fee structure is only functional and effective if truckers use fees because the alternative of fines is too expensive. If the capture rate were 100 percent, e.g., every truck or trucker that overloaded would be caught each time, that relationship would hold. But, if the capture rate is only 10 percent, then, for example, a 300 mile, 30 Kip overload, the nominal fine of \$950 would only experience a \$95 net fine (fine amount times the probability of receiving a citation) while fees are \$189, economic incentive is about \$218 and the road damage estimate is \$744. In such a case, the fee is inoperative,

economic incentive is not eliminated and massive road damage could be expected to occur.

The four state average (Washington, Idaho, Oregon and California) is also presented in the tables. Washington's fee magnitude is slightly above the average at most levels and is significantly so for the higher levels. The fine level is above the average for the four states at the 3 and 5 Kip overload weight but is significantly below the average at the higher levels.

APPENDIX A
QUESTIONNAIRE

Washington State University

Study

"RELATIONSHIP OF PERMITS AND FINES TO PAVEMENT DAMAGE"

I. GENERAL INFORMATION

Name of Respondent:

Title:

Mailing Address: _____

Telephone Number: _____
 area code number

Attempts to Raise Weight Limit

1. Since 1983, how many bills have been introduced in your legislature to raise the Interstate or non-Interstate weight limits? (if zero, write 0)

_____ NUMBER OF TIMES BILLS INTRODUCED FOR INTERSTATE
 _____ NUMBER OF TIMES BILLS INTRODUCED FOR NON-INTERSTATE
 (if both answers are zero for question 1, go to question 2, otherwise continue with question 1a)

1a. In what year(s) have the bills introduced in the legislature succeeded in raising the Interstate or non-Interstate weights limits?

_____ YEAR(S) RAISED FOR INTERSTATE
 _____ YEAR(S) RAISED FOR NON-INTERSTATE

Research and Studies

2. In the last 5 years, has your state completed any studies in the following areas?

	<u>COMPLETED</u>	<u>UNDER-</u> <u>GOING</u>	<u>NONE</u>
A. User tax structure or tax allocation...	_____	_____	_____
B. Economic benefits of heavy trucking vs. their effects on highways.....	_____	_____	_____
C. Economic benefit of overweight-truck operations.....	_____	_____	_____
D. Impact of overweight trucks on: Pavement and bridge conditions.....	_____	_____	_____
Maintenance costs.....	_____	_____	_____
E. Weight enforcement problems in your state.....	_____	_____	_____
F. Cost allocation studies.....	_____	_____	_____
G. Others related to weight, fees and fines (please specify)	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

II. WEIGHT LAWS

3. What Interstate weight limits were in effect in your state on July 1, 1956, July 1, 1982 and what are the current (as of July 1, 1988) Interstate weight limits?

	1956	1982	1988
TIRE LOADING.....	_____	_____	_____
SINGLE AXLE WEIGHT.....	_____	_____	_____
TANDEM AXLE WEIGHT.....	_____	_____	_____
GROSS VEHICLE WEIGHT.....	_____	_____	_____
OTHER (PLEASE SPECIFY)	_____	_____	_____

4. Does your state currently have different weight limits for non-Interstate highways? (Circle one)

A. YES (If yes, continue)

B. NO (If no, go to question 6)

5. To what highways do these different weight limits apply? (Circle one)

a. ALL NON-INTERSTATE

b. OTHER HIGHWAYS (Please specify and describe your categories)

6. What non-Interstate weight limits were in effect in your state on July 1, 1956, July 1, 1982 and what are the current (as of July 1, 1988) non-Interstate weight limits?

_____ Check if all limits are the same as in Question 3.

	1956	1982	1988
TIRE LOADING.....	_____	_____	_____
SINGLE AXLE WEIGHT.....	_____	_____	_____
TANDEM AXLE WEIGHT.....	_____	_____	_____
GROSS VEHICLE WEIGHT.....	_____	_____	_____
OTHER (PLEASE SPECIFY)	_____	_____	_____

7. Does your state have any general restrictions (i.e. seasonal, type of road, etc.) on its basic maximum weight limit? *circle one)
- a. NO
- b. YES (Please specify) _____
- _____
- _____
- _____

8. What discretion is used in enforcing weight limits? (Specify % or lbs.)

_____ TOLERANCE, TIRE LOADING

_____ TOLERANCE, SINGLE AXLE

_____ TOLERANCE, TANDEM AXLE

_____ TOLERANCE, GROSS VEHICLE WEIGHT

III. OVERWEIGHT PERMITS

9. Does your state issue overweight permits for single trips of non-divisible loads? (Circle one)
- a. YES (CONTINUE)
- b. NO (GO TO QUESTION 11)

10. How many overweight permits were issued for single trips of non-divisible loads in 1987 (Jan. 1 - Dec. 31)?

_____ NUMBER ISSUED

11. Does your state issue overweight permits for single trips of divisible loads? (Circle one)
- a. YES
- b. NO
- Comments _____
- _____
- _____

- 11a. In our context divisible loads are loads that can be "reasonably reduced". What is your definition?
- _____
- _____
- _____

- 11b. Does your state require blades to be detached from overweight loads? (Circle one)
- a. YES
- b. NO
- Comments _____
- _____

12. How many overweight permits were issued for single trips of divisible loads in 1987 (Jan. 1 - Dec. 31)?

_____ NUMBER ISSUED, IF ANY

13. Does your state issue overweight permits for multiple trips of non-divisible loads? (Circle one)
- YES (CONTINUE)
 - NO (GO TO QUESTION 17)

14. How many overweight permits were issued for multiple trips of non-divisible loads?

_____ NUMBER ISSUED

15. Are overweight permits for multiple trips of non-divisible loads limited to a specific number of days? (Circle one)
- YES (SPECIFY MAXIMUM NUMBER OF DAYS)
_____ DAYS
 - NO

16. Are overweight permits for multiple trips of non-divisible loads limited to a specific number of trips? (Circle one)
- YES (SPECIFY MAXIMUM NUMBER OF TRIPS)
_____ TRIPS
 - NO

17. Does your state issue overweight permits for multiple trips of divisible loads? (Circle one)
- YES (CONTINUE)
 - NO (GO TO QUESTION 21)
- Comments _____

18. How many overweight permits were issued for multiple trips of divisible loads?

_____ NUMBER ISSUED

19. Are overweight permits for multiple trips of divisible loads limited to a specific number of days? (Circle one)
- YES (SPECIFY MAXIMUM NUMBER OF DAYS)
_____ DAYS
 - NO

20. Are overweight permits for multiple trips of divisible loads limited to a specific number of trips? (Circle one)
- YES (SPECIFY MAXIMUM NUMBER OF TRIPS)
_____ TRIPS
 - NO

21. Since 1983, how many bills have ben introduced in your legislature to change the permit fee schedule for overweight vehicles?

_____ NUMBER OF BILLS INTRODUCED

22. The cost of an overloading permit in your state is computed based on the following: (Circle all that apply)
- a. A FIXED COST, REGARDLESS OF THE AMOUNT OF OVERLOAD
 - b. A SPECIFIC COST SCHEDULE BASED ON THE RANGE OF OVERWEIGHT
 - c. A SPECIFIC COST SCHEDULE BASED ON THE DISTANCE TO BE TRAVELED
 - d. VARIABLE, DEPENDING ON THE AMOUNT OF OVERLOAD AND THE ROUTE
 - e. COST IS COMPUTED AFTER THE TRUCK USED THE ROUTE -- BY STUDYING THE ACTUAL DAMAGE RELATED TO THE SPECIFIC USAGE
 - f. OTHER (PLEASE SPECIFY) _____

23. Which of the following should a permit fee cover? (Circle all that apply)
- a. COST OF ISSUANCE AND ADMINISTRATION
 - b. PRODUCE REVENUE TO COVER PAVEMENT DAMAGE
 - c. PRODUCE REVENUE FOR OTHER PURPOSES
 - d. OTHER (Please specify) _____

Special Permits and Exemptions

24. Are trucks carrying the following commodities granted special permits and/or exemptions or are they subject to general weight provisions of your state's laws? (Check all that apply)

<u>COMMODITY</u>	<u>SPECIAL PERMITS</u>	<u>EXEMPTIONS GRANTED</u>	<u>SUBJECT TO GENERAL PROVISIONS</u>
a. Coal.....	_____	_____	_____
b. Petroleum Products...	_____	_____	_____
c. Cement or Concrete...	_____	_____	_____
d. Excavation Materials.	_____	_____	_____
e. Farm Products.....	_____	_____	_____
f. Timber.....	_____	_____	_____
g. Garbage Trucks.....	_____	_____	_____
h. Other (specify)	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

IV. OVERWEIGHT PENALTIES

25. Since 1983, how many bills have been introduced in your legislature to change your fine schedule for overweight vehicles?

_____ NUMBER OF BILLS INTRODUCED

26. Does your state weight law contain a provision requiring mandatory offloading of the overweight portion of the cargo before the truck can proceed if the cargo cannot be made legal by shifting load or other means? (Circle one)

- a. YES
b. NO

27. Does your fine schedule vary by the amount overweight?

- a. YES (Go to question 28)
b. No (Go to question 27a)

- 27a. If your fine schedule is not explicitly based on the amount of overweight, what assumption was made about the amount of overweight in developing your fine schedule?

28. In your opinion, was your legislative intent with regards to your state's fine schedule to: (Circle all that apply)

- a. DETER OVERWEIGHT VEHICLES FROM USING THE ROAD
b. COVER DAMAGE AND ADMINISTRATION COST THAT RESULT FROM OVERWEIGHT VEHICLES
c. OTHER (Please specify) _____

IV. SUBJECTIVE ASSESSMENT

29. Do you believe the permit structure in your state reasonably covers costs of road damage caused by the permitted overloads? (Circle one)

- a. YES
b. NO

Comments _____

30. Do you believe fines reasonably cover costs of road damage caused by overweight loads? (Circle one)

a. YES

b. NO

Comments _____

31. Do you believe your fine structure economically discourages truckers from overloading? (Circle one)

a. YES

b. No

Comments _____

V. IT WOULD BE MUCH APPRECIATED IF YOU WOULD SEND US THE FOLLOWING ITEMS ALONG WITH THE COMPLETED QUESTIONNAIRE:

1. A CURRENT FEE SCHEDULE FOR OVERLOADING PERMITS,
2. A CURRENT FINE SCHEDULE FOR ILLEGAL OVERLOADING, AND
3. CURRENT STATUTES DETERMINING WEIGHT LIMITS, PERMITS AND FINES.

*****THE END*****

THANK YOU

Kenneth L. Casavant
Transportation Economist
Washington State University
Pullman, WA 99164-6210
(509) 335-1608

APPENDIX B

SELECTED RESULTS OF NATIONAL SURVEY

TABLE B-1. Legislative Activity, by State, 1983-1988.

	Raised	
	Interstate	Non-Interstate
1983	Illinois Minnesota North Dakota	Illinois Minnesota North Dakota Washington
1984	(A)	Mississippi
1985	Wyoming	Mississippi New Hampshire South Carolina
1986	(A)	Connecticut Hawaii Indiana Kentucky Mississippi New Hampshire
1987	Montana	Mississippi
1988	Vermont	Mississippi Vermont Washington

(A) No states succeeded in raising the Interstate weight limits in this year.

TABLE B-2. Studies Undertaken, by State, 1983-1988.

STATE	STUDY TYPE										
	User Tax Structure or Tax Allocation	Economic Benefits of Heavy Trucking vs. Their Effects on Highways	Economic Benefits of Overweight Truck Operations	Impact of Overweight Trucks on Pavement and Bridge Conditions	Impact of Overweight Trucks on Maintenance Costs	Weight Enforcement Problems in Your State	Cost Allocation Studies	Other Studies			
Alabama	0	0	0	0	0	0					
Alaska	0	0	0	0	0	2	A				
Arizona	0	0	0	2	2	2	B				
Arkansas	1	1	0	1	1	2	1	C			
California	1	0	0	1	1	2	1				
Colorado	1	0	0	2	0	0	1				
Connecticut	0	0	0	0	0	0					
D.C.	0	0	0	0	0	0					
Delaware	0	0	0	0	0	0					
Florida	0	0	0	2	2	2					
Georgia	0	0	0	0	0	0		D			
Hawaii	0	0	0	0	0	0					
Idaho	0	0	0	1	0	0		E,F			
Illinois	0	1	0	0	0	0					
Indiana	3	1	1	1	2	1	1	G			

TABLE B-2. Cont.

STATE	STUDY TYPE												
	User Tax Structure or Tax Allocation	Economic Benefits of Heavy Trucking vs. Their Effects on Highways	Economic Benefits of Overweight Truck Operations	Impact of Overweight Trucks on Pavement and Bridge Conditions	Impact of Overweight Trucks on Maintenance Costs	Weight Enforcement Problems in Your State	Cost Allocation Studies	Other Studies					
Iowa	0	0	0	0	0	0	0	0	0	0			
Kansas	0	0	0	0	0	0	0	0	0	0	1		
Kentucky	0	0	0	0	0	0	0	0	0	0	1		
Louisiana	0	0	0	2	2	2	2	2	2	2			
Maine	1	1	0	1	0	1	0	0	1	1	1		H,I,J
Maryland	0	0	1	1	1	1	1	1	0	0			
Massachusetts	0	0	0	0	0	0	0	0	0	0			
Michigan	0	0	0	1	1	1	1	1	0	0			K
Minnesota	1	1	0	1	1	1	1	1	1	1	1		L,M,N
Mississippi	0	0	0	0	0	0	0	0	0	0			
Missouri	1	0	0	0	0	0	0	0	2	2	1		
Montana	0	2	0	2	0	0	0	0	2	2	0		
Nebraska	0	2	2	2	2	2	2	2	2	2	2		
Nevada	0	0	0	0	0	0	0	0	0	0	3		
New Hampshire	0	0	0	2	2	2	2	2	0	0	0		

TABLE B-2. Cont.

STATE	STUDY TYPE									
	User Tax Structure or Tax Allocation	Economic Benefits of Heavy Trucking vs. Their Effects on Highways	Economic Benefits of Overweight Truck Operations	Impact of Overweight Trucks on Pavement and Bridge Conditions	Impact of Overweight Trucks on Maintenance Costs	Weight Enforcement Problems in Your State	Cost Allocation Studies	Other Studies		
New Jersey	0	0	0	0	0	0	0	0	0	0
New Mexico	1	1	1	1	0	2	0	0	0	0
New York	2	2	1	1	1	1	2	0	0	0
North Carolina	0	0	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0	0	0	0	0
Ohio	0	0	0	2	0	0	0	0	0	0
Oklahoma	0	0	0	1	1	0	0	0	0	0
Oregon	1	0	0	2	0	0	3	0	0	0
Pennsylvania	2	0	0	1	0	2	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0	0	0	0
Texas	0	0	0	0	0	0	2	0	0	0
Utah	0	2	1	1	1	2	0	2	0	0

TABLE B-2. Cont.

STATE	STUDY TYPE									
	User Tax Structure or Tax Allocation	Economic Benefits of Heavy Trucking vs. Their Effects on Highways	Economic Benefits of Overweight Truck Operations	Impact of Overweight Trucks on Pavement and Bridge Conditions	Impact of Overweight Trucks on Maintenance Costs	Weight Enforcement Problems in Your State	Cost Allocation Studies	Other Studies		
Vermont	2	0	0	2	2	2	0	0	0	0
Virginia	0	0	0	2	0	1	0	0	0	0
Washington	0	0	0	0	0	0	1	0	0	0
West Virginia	0	0	0	0	0	0	0	0	0	0
Wisconsin	0	0	0	0	0	1	0	0	0	0
Wyoming	0	0	1	0	0	0	0	0	0	0

NOTES:

0 = None

1 = Complete

2 = Undergoing

3 = Both complete and undergoing

OTHER STUDIES:

NOTE STATUS STUDY TITLE

A	2	Repeat Offenders of Trucking Regulations
B	2	Restructuring of Fines for Overweight
C	2	Permit Fee System of Overweight and Oversize Vehicles

TABLE B-2. Cont.

NOTE	STATUS	STUDY TITLE
D	1	Assessment of Fine Structure as Related to Pavement Damage
E	1	Overweight Permit Fees Based on Damage
F	1	Overweight Fines Based on Damage
G	2	Bridge Management
H	2	Haul Roads Study
I	1	Miscellaneous Adjustments
J	1	Truck Issues Study
K	1	Fines for Overweight
L	1	Vehicle Classification Studies
M	1	Proposed Method of Assessing Fees for Overweight Truck Permits
N	1	Refuse Trucks, Weight and Fuel Tax Exemption--Survey of States
O	1	Evaluation of Overweight/Overweight Permit Policy and Fee Structure

TABLE B-3. Interstate Weight Limits, Selected Years, All States

STATE	SINGLE AXLE				TANDEM AXLE				GROSS VEHICLE WEIGHT			
	1956	1982	1988	1988	1956	1982	1988	1988	1956	1982	1988	1988
Alabama	18000	20000	20000	20000	34000	34000	34000	34000	64650	80000	80000	80000
Alaska	N/A	20000	20000	20000	N/A	34000	38000	38000	N/A	150000	150000	150000
Arizona	N/A	20000	20000	20000	N/A	34000	34000	34000	N/A	80000	80000	80000
Arkansas	N/A	18000	20000	20000	32000	32000	34000	34000	N/A	73280	80000	80000
California	N/A	20000	20000	20000	N/A	34000	34000	34000	73280	80000	80000	80000
Colorado	18000	20000	20000	20000	N/A	36000	36000	36000	N/A	80000	80000	80000
Connecticut	22400	22400	22400	22400	36000	36000	36000	36000	73000	80000	80000	80000
D.C.	N/A	18000	18000	18000	N/A	34000	34000	34000	N/A	80000	80000	80000
Delaware	N/A	20000	20000	20000	36000	40000	34000	34000	60000	80000	80000	80000
Florida	N/A	22000	22000	22000	N/A	44000	44000	44000	N/A	80000	80000	80000
Georgia	20340	20340	20340	20340	N/A	34000	34000	34000	73280	80000	80000	80000
Hawaii	24000	24000	24000	24000	32000	34000	34000	34000	73280	80800	80000	80000
Idaho	18000	20000	20000	20000	32000	34000	34000	34000	73280	80000	80000	80000
Illinois	18000	18000	20000	20000	32000	32000	34000	34000	73280	73280	80000	80000
Indiana	18000	20000	20000	20000	32000	34000	34000	34000	72000	80000	80000	80000
Iowa	18000	20000	20000	20000	32000	34000	34000	34000	73280	80000	80000	80000
Kansas	N/A	20000	20000	20000	N/A	34000	34000	34000	73280	80000	80000	80000
Kentucky	18000	20000	20000	20000	N/A	34000	34000	34000	42000	82000	80000	80000

TABLE B-3. Cont.

STATE	SINGLE AXLE				TANDEM AXLE				GROSS VEHICLE WEIGHT			
	1956	1982	1988	1956	1982	1988	1956	1982	1988	1956	1982	1988
Louisiana	18000	20000	20000	32000	34000	34000	72000	80000	80000	80000	80000	80000
Maine	18000	20000	22000	32000	34000	34000	73280	80000	80000	80000	80000	80000
Maryland	22400	22400	22400	36000	40000	40000	65000	79000	80000	79000	80000	80000
Massachusetts	22400	22400	22400	36000	36000	36000	73280	73280	73280	73280	73280	73280
Michigan	18000	18000	18000	32000	32000	32000	164000	164000	164000	164000	164000	164000
Minnesota	N/A	20000	20000	N/A	34000	34000	N/A	80000	80000	80000	80000	80000
Mississippi	18000	20000	20000	24000	34000	34000	57650	80000	80000	80000	80000	80000
Missouri	18000	18000	18000	32000	32000	34000	73280	73280	80000	73280	80000	80000
Montana	18000	20000	20000	30000	34000	34000	76800	80000	80000	80000	80000	80000
Nebraska	18000	20000	20000	32000	34000	34000	64650	80000	80000	80000	80000	80000
Nevada	18000	20000	20000	32000	34000	34000	76400	80000	80000	80000	80000	80000
New Hampshire	22400	22400	22400	N/A	34000	34000	66400	80000	80000	80000	80000	80000
New Jersey	22400	22400	22400	32000	34000	34000	60000	72800	80000	72800	80000	80000
New Mexico	N/A	21600	21600	N/A	34320	34320	N/A	86400	86400	86400	86400	86400
New York	22400	22400	22400	36000	36000	36000	71000	80000	80000	80000	80000	80000
North Carolina	19000	20000	20000	36000	38000	38000	58800	73280	80000	73280	80000	80000
North Dakota	18000	20000	20000	32000	34000	34000	73280	80000	80000	80000	80000	80000
Ohio	19000	20000	20000	31500	34000	34000	78000	80000	80000	80000	80000	80000
Oklahoma	18000	20000	20000	32000	34000	34000	73280	80000	80000	80000	80000	80000

TABLE B-3. Cont.

STATE	SINGLE AXLE			TANDEM AXLE			GROSS VEHICLE WEIGHT		
	1956	1982	1988	1956	1982	1988	1956	1982	1988
Oregon	18000	20000	20000	32000	34000	34000	73280	80000	80000
Pennsylvania	22400	22400	22400	36000	36000	36000	73280	80000	80000
Rhode Island	N/A	22400	22400	N/A	44800	44000	N/A	80000	80000
South Carolina	20000	20000	20000	35200	35200	34000	75185	80000	80000
South Dakota	N/A	20000	20000	32000	34000	34000	43280	80000	80000
Tennessee	N/A	20000	20000	N/A	34000	34000	N/A	80000	80000
Texas	18000	20000	20000	32000	34000	34000	58420	80000	80000
Utah	18000	20000	20000	33000	34000	34000	79900	80000	80000
Vermont	N/A	22400	22400	N/A	36000	36000	N/A	80000	80000
Virginia	18000	20000	20000	32000	34000	34000	56800	80000	80000
Washington	18000	20000	20000	32000	34000	34000	72000	80000	80000
West Virginia	18000	20000	20000	32000	34000	34000	73500	80000	80000
Wisconsin	N/A	20000	20000	N/A	34000	34000	N/A	80000	80000
Wyoming	18000	18000	20000	32000	36000	36000	73950	73950	117000

TABLE B-4. Non-Interstate Weight Limits, Selected Years, All States

STATE	SINGLE AXLE			TANDEM AXLE			GROSS VEHICLE WEIGHT		
	1956	1982	1988	1956	1982	1988	1956	1982	1988
Alabama	18000	20000	20000	36000	40000	40000	64650	88400	84000
Alaska	N/A	20000	20000	N/A	34000	38000	N/A	150000	150000
Arizona	N/A	20000	20000	N/A	34000	34000	N/A	80000	80000
Arkansas	N/A	18000	20000	32000	32000	34000	N/A	73280	80000
California	N/A	20000	20000	N/A	34000	34000	73280	80000	80000
Colorado	18000	20000	20000	N/A	40000	40000	N/A	85000	85000
Connecticut	22400	22400	22400	36000	36000	36000	73000	80000	80000
D.C.	N/A	18000	18000	N/A	34000	34000	N/A	80000	80000
Delaware	20000	20000	20000	36000	40000	40000	60000	80000	80000
Florida	N/A	22000	22000	N/A	44000	44000	N/A	80000	80000
Georgia	20340	20340	20340	N/A	40680	37340	73280	80000	80000
Hawaii	24000	24000	24000	32000	34000	34000	73280	88000	88000
Idaho	18000	18000	20000	32000	32000	37800	73280	76800	105500
Illinois	18000	18000	18000	32000	32000	32000	73280	73280	73280
Indiana	18000	20000	20000	32000	34000	34000	72000	80000	80000
Iowa	18000	20000	20000	32000	34000	34000	73280	80000	80000
Kansas	N/A	20000	20000	N/A	34000	34000	N/A	85500	85500
Kentucky	18000	20000	20000	N/A	34000	34000	42000	82000	120000

TABLE B-4. Cont.

STATE	SINGLE AXLE			TANDEM AXLE			GROSS VEHICLE WEIGHT		
	1956	1982	1988	1956	1982	1988	1956	1982	1988
Louisiana	18000	20000	20000	32000	34000	34000	72000	80000	80000
Maine	22000	22400	22400	32000	38000	38000	50000	80000	80000
Maryland	22400	22400	22400	36000	40000	40000	65000	79000	80000
Massachusetts	22400	22400	22400	36000	36000	36000	73280	73280	73280
Michigan	18000	18000	18000	32000	32000	32000	164000	164000	164000
Minnesota	18000	18000	18000	28000	34000	34000	66500	73280	73280
Mississippi	18000	20000	20000	24000	34000	34000	57650	80000	80000
Missouri	18000	18000	18000	32000	32000	34000	73280	73280	80000
Montana	18000	20000	20000	32000	34000	34000	76800	80000	80000
Nebraska	18000	20000	20000	32000	34000	34000	64650	95000	95000
Nevada	18000	20000	20000	32000	34000	34000	76400	109000	109000
New Hampshire	22400	22400	22400	N/A	36000	36000	66400	80000	80000
New Jersey	22400	22400	22400	32000	34000	34000	60000	72800	80000
New Mexico	N/A	21600	21600	N/A	34320	34320	N/A	86400	86400
New York	22400	22400	22400	36000	36000	36000	71000	80000	80000
North Carolina	19000	20000	20000	36000	38000	38000	58800	73280	80000
North Dakota	18000	20000	20000	32000	34000	34000	73280	105500	105500
Ohio	19000	20000	20000	31500	34000	34000	78000	80000	80000

TABLE B-4. Cont.

STATE	SINGLE AXLE			TANDEM AXLE			GROSS VEHICLE WEIGHT		
	1956	1982	1988	1956	1982	1988	1956	1982	1988
Oklahoma	18000	20000	20000	32000	34000	34000	73280	90000	90000
Oregon	18000	20000	20000	32000	34000	34000	73280	80000	80000
Pennsylvania	22400	22400	22400	36000	36000	36000	73280	80000	80000
Rhode Island	N/A	22400	22400	N/A	44800	44000	N/A	80000	80000
South Carolina	20000	20000	20000	35200	35200	34000	75185	80000	80000
South Dakota	N/A	20000	20000	N/A	34000	34000	N/A	120000	120000
Tennessee	N/A	20000	20000	N/A	34000	34000	N/A	80000	80000
Texas	18000	20000	20000	32000	34000	34000	58420	80000	80000
Utah	18000	20000	20000	33000	34000	34000	79000	80000	80000
Vermont	N/A	22400	22400	N/A	36000	36000	N/A	80000	80000
Virginia	18000	20000	20000	32000	34000	34000	56800	80000	80000
Washington	18000	20000	20000	32000	34000	34000	72000	80000	80000
West Virginia	18000	20000	20000	32000	34000	34000	73500	80000	80000
Wisconsin	N/A	20000	20000	N/A	34000	34000	N/A	80000	80000
Wyoming	18000	18000	20000	32000	36000	36000	73950	73950	117000

TABLE B-5. Overweight Permit Structure, By State

STATE	NUMBER IN 1988				MULTIPLE DIVISIBLE
	SINGLE NON-DIVISIBLE	SINGLE DIVISIBLE	MULTIPLE NON-DIVISIBLE	MULTIPLE DIVISIBLE	
Alabama	7850	0	1420	N/A	
Alaska	3754	0	296	N/A	
Arizona	9175	0	129	N/A	
Arkansas	24430	0	N/A	N/A	
California	71775	221	4309	N/A	
Colorado	6787	0	1174	0	
Connecticut	50000	0(E)	10	1000	
D.C.	801	108	261	1083	
Delaware	7935(A)	0	N/A	N/A	
Florida	42000	0	10000	N/A	
Georgia	136139	423	4577	95	
Hawaii	2846	22	77	68	
Idaho	5530	0	518	9583	
Illinois	149295	N/A	25000	N/A	
Indiana	3032	10670	N/A	7337	

TABLE B-5. Cont.

STATE	NUMBER IN 1988				MULTIPLE DIVISIBLE
	SINGLE NON-DIVISIBLE	SINGLE DIVISIBLE	MULTIPLE NON-DIVISIBLE	MULTIPLE DIVISIBLE	
Iowa	1600	0	N/A	N/A	N/A
Kansas	16000	0	N/A	N/A	N/A
Kentucky	63794(B)	N/A(F)	N/A	307	0
Louisiana	59932	0	N/A	0	N/A
Maine	25000	0	N/A	N/A	0
Maryland	37347	0	4134	0	0
Massachusetts	40353	0	1000	16523	494
Michigan	1205	0	N/A(E)	769	1784
Minnesota	6333	0	769	N/A	N/A
Mississippi	12015	0	N/A	N/A	N/A
Missouri	12655	0	N/A	N/A	N/A
Montana	16464	0	N/A	N/A	N/A
Nebraska	5997	0	1100	880	173
Nevada	5812	0	794	173	N/A
New Hampshire	7800(C)	0	N/A(H)	N/A	N/A

TABLE B-5. Cont.

STATE	NUMBER IN 1988			
	SINGLE NON-DIVISIBLE	SINGLE DIVISIBLE	MULTIPLE NON-DIVISIBLE	MULTIPLE DIVISIBLE
New Jersey	7132	0	N/A	N/A
New Mexico	6642	N/A	N/A	N/A
New York	796	0	5808	23203
North Carolina	28369	0	6071	N/A
North Dakota	12257	26827	N/A	N/A
Ohio	38034	0	1099	394
Oklahoma	4297	0	N/A	N/A
Oregon	13500	50	5080	14000
Pennsylvania	65000	400	300	100
Rhode Island	6557	0	151	3911
South Carolina	33883	0	N/A	N/A
South Dakota	20961	1187	N/A	N/A
Tennessee	13850	0	1287	N/A
Texas	204751	0	N/A	N/A
Utah	6262	1966	1220	9839

TABLE B-5. Cont.

STATE	NUMBER IN 1988			
	SINGLE NON-DIVISIBLE	SINGLE DIVISIBLE	MULTIPLE NON-DIVISIBLE	MULTIPLE DIVISIBLE
Vermont	5466(D)	0	1247(D)	1173
Virginia	2075	0(G)	1651	6248
Washington	27531	0	150	3798
West Virginia	19000	0	N/A	N/A
Wisconsin	9277	0	2057	2054
Wyoming	N/A	N/A	N/A	N/A

NOTES: (A) Combined divisible and non-divisible loads.

(B) This number represents overweight/overdimensional permits for single non-divisible, single divisible and multiple non-divisible categories.

(C) May include return trip.

(D) May include overdimensional loads.

(E) Limited to construction industry.

(F) Only issued up to 80,000 lbs. on roads with a maximum gross vehicle weight of 44,000 or 62,000 lbs.

(G) Only offered when loads are specifically authorized by Virginia statute.

(H) Issued on single and return trip if requested -- included in single trip non-divisible load category.

TABLE B-6. Basis for Fee for Overloading Permit

	A fixed cost, regardless of overload	A specific cost on the range of overweight	A specific cost on the distance to be traveled	Variable, depending on the amount of overload and the route	Cost is computed after the truck used the route--by studying the actual damage related to the specific usage	Other
Alabama	NO	YES	NO	NO	NO	NO
Alaska	NO	YES	NO	NO	NO	NO
Arizona	YES	NO	NO	NO	NO	YES
Arkansas	NO	NO	NO	YES	NO	NO
California	YES	NO	NO	NO	NO	NO
Colorado	NO	YES	NO	NO	NO	YES
Connecticut	YES	NO	NO	NO	NO	NO
D.C.	NO	YES	NO	NO	NO	NO
Delaware	NO	YES	NO	NO	NO	NO
Florida	NO	YES	NO	NO	NO	NO
Georgia	YES	NO	NO	NO	NO	NO
Hawaii	NO	YES	NO	NO	NO	NO
Idaho	NO	YES	YES	NO	NO	NO
Illinois	NO	YES	NO	NO	NO	NO
Indiana	NO	YES	YES	YES	NO	NO

TABLE B-6. Cont.

	A fixed cost, regardless of overload	A specific cost schedule based on the range of overweight	A specific cost schedule based on the distance to be traveled	Variable, depending on the amount of overload and the route	Cost is computed after the truck used the route--by studying the actual damage related to the specific usage	Other
Iowa	YES	NO	NO	NO	NO	NO
Kansas	NO	YES	NO	NO	NO	NO
Kentucky	YES	NO	NO	NO	NO	YES
Louisiana	NO	NO	NO	YES	NO	NO
Maine	NO	YES	NO	NO	NO	NO
Maryland	NO	YES	NO	YES	NO	NO
Massachusetts	NO	YES	NO	NO	NO	NO
Michigan	YES	NO	NO	NO	NO	NO
Minnesota	NO	YES	YES	YES	NO	YES
Mississippi	NO	NO	NO	YES	NO	NO
Missouri	YES	YES	NO	NO	NO	NO
Montana	NO	NO	YES	NO	NO	NO
Nebraska	YES	NO	NO	NO	NO	NO
Nevada	YES	NO	NO	NO	NO	NO
New Hampshire	NO	YES	NO	NO	NO	NO

TABLE B-6. Cont.

	A fixed cost, regardless of overload	A specific cost schedule based on the range of overweight	A specific cost schedule based on the distance to be traveled	Variable, depending on the amount of overload and the route	Cost is computed after the truck used the route--by studying the actual damage related to the specific usage	Other
New Jersey	NO	YES	NO	NO	NO	NO
New Mexico	YES	NO	NO	NO	NO	NO
New York	YES	NO	NO	NO	NO	NO
North Carolina	YES	NO	NO	NO	NO	NO
North Dakota	YES	YES	NO	NO	NO	NO
Ohio	YES	NO	NO	NO	NO	NO
Oklahoma	NO	YES	NO	NO	NO	NO
Oregon	YES	NO	NO	NO	NO	YES
Pennsylvania	YES	YES	YES	NO	NO	NO
Rhode Island	YES	YES	NO	NO	NO	NO
South Carolina	YES	NO	NO	NO	NO	NO
South Dakota	NO	NO	NO	NO	NO	YES
Tennessee	NO	YES	YES	NO	NO	NO
Texas	YES	NO	NO	NO	NO	NO
Utah	YES	NO	NO	NO	NO	NO

TABLE B-6. Cont.

	A fixed cost, regardless of overload	A specific cost schedule based on the range of overweight	A specific cost schedule based on the distance to be traveled	Variable, depending on the amount of overload and the route	Cost is computed after the truck used the route--by studying the actual damage related to the specific usage	Other
Vermont	YES	NO	NO	NO	NO	NO
Virginia	YES	NO	YES	NO	NO	NO
Washington	YES	YES	YES	YES	NO	NO
West Virginia	YES	YES	YES	NO	NO	NO
Wisconsin	NO	YES	NO	NO	NO	NO
Wyoming	NO	NO	NO	YES	NO	NO

TABLE B-7. Special Permits by State

STATE	CEMENT										OTHER
	COAL	PETROLEUM PRODUCTS	CEMENT OR CONCRETE	EXCAVATION MATERIALS	FARM PRODUCTS	TIMBER	GARBAGE TRUCKS				
Alabama	A	A	B	A	B	A	A	A			
Alaska	A	A	B	A	A	A	A	A			
Arizona	A	A	A	A	A	A	A	A			
Arkansas	A	A	A	A	A	A	A	A			
California	A	A	A	A	A	A	A	A			
Colorado	A	A	A	A	A	A	A	A			1,2,3
Connecticut	A	A	C	C	A	A	A	A			
D.C.	A	A	A	A	A	A	A	A			
Delaware	A	A	A	A	A	A	A	A			
Florida	A	A	A	A	A	A	A	A			
Georgia	A	A	A	A	B	A	A	A			
Hawaii	A	A	A	A	C	A	A	A			
Idaho	B	A	A	A	B	B	A	A			4,5
Illinois	A	A	A	A	B	A	B	B			
Indiana	A	A	A	A	B	A	A	B			
Iowa	A	A	A	A	A	A	A	B			
Kansas	A	A	A	A	A	A	A	A			
Kentucky	D	A	B	D	B	B	B	B			6
Louisiana	A	A	A	A	D	D	C	C			
Maine	A	A	C	C	C	C	C	C			7

TABLE B-7. Cont.

STATE	CEMENT										OTHER
	COAL	PETROLEUM PRODUCTS	CEMENT OR CONCRETE	EXCAVATION MATERIALS	FARM PRODUCTS	TIMBER	GARBAGE TRUCKS				
South Carolina	A	A	B	A	B	A	A	A			
South Dakota	A	A	A	A	B	A	A	A			
Tennessee	A	A	A	A	A	A	A	A			
Texas	A	C	B	A	B	B	B	B			
Utah	A	A	A	A	A	A	A	A			
Vermont	A	A	A	A	A	A	C	A		17,18	
Virginia	C	A	C	A	C	C	C	C			
Washington	A	A	A	A	A	A	C	C			
West Virginia	A	A	A	A	A	A	A	A			
Wisconsin	C	A	A	A	C	D	C	C		19,20,21	
Wyoming	A	A	A	A	C	C	C	A			

NOTES:

- A = General Provision
- B = Exemptions Granted
- C = Special Permits
- D = Permits and Exemptions

TABLE B-7. Cont.

NOTE	STATUS	CATEGORY
1	B	Boats
2	B	Structure Unknown
3	B	Poles and Pilings
4	B	Sand/Gravel
5	B	Livestock
6	C	Steel Ingo
7	B	Government Vehicles
8	D	International Freight
9	B	Construction
10	B	Solid Waste
11	C	All Products
12	C	Steel Coil
13	C	Milk
14	C	Various Commodities
15	C	Mobile Machinery
16	C	Roundbaled
17	C	Milkhaulers
18	C	Quarried Rock
19	D	Scrap Metal
20	B	Septage
21	B	Salt-Main.

TABLE B-8. Respondent Assessment of Issues

STATE	LEGISLATIVE INTENT			Permit Structure cover costs of road damage caused by overweight vehicles ¹	Fines cover costs of road damage caused by overweight loads ²	Fine structure economically discourages truckers from overloading ³
	Deter Overweight Use	Cover Damage & Administration Costs	Other			
Alabama	YES	--	--	MAYBE	NO	UNCLEAR
Alaska	YES	--	--	NO	NO	NO
Arizona	YES	--	--	NO	NO	NO
Arkansas	YES	--	--	NO	NO	YES
California	YES	--	--	NO	NO	NO
Colorado	YES	--	--	--	NO	--
Connecticut	YES	--	--	NO	UNKNOWN	MAYBE
D.C.	YES	--	--	NO	NO	YES
Delaware	YES	--	--	NO	NO	NO
Florida	YES	--	--	YES	NO	NO
Georgia	YES	YES	--	NO	NO	NO
Hawaii	YES	--	--	NO	NO	NO
Idaho	YES	--	--	NO	NO	NO
Illinois	YES	YES	--	NO	NO	YES
Indiana	--	--	YES ⁴	MAYBE	UNKNOWN	NO

TABLE B-8. Cont.

STATE	LEGISLATIVE INTENT			Permit Structure cover costs of road damage caused by overweight vehicles? ¹	Fines cover costs of road damage caused by overweight loads? ²	Fine structure economically discourages truckers from overloading? ³
	Deter Overweight Use	Cover Damage & Administration Costs	Other			
Iowa	YES	--	--	NO	NO	NO
Kansas	--	YES	--	NO	NO	NO
Kentucky	YES	--	--	NO	NO	NO
Louisiana	YES	YES	--	YES	YES	YES
Maine	YES	YES	--	NO	NO	NO
Maryland	YES	--	--	NO	NO	YES
Massachusetts	YES	--	--	NO	NO	YES
Michigan	YES	--	--	NO	NO	NO
Minnesota	YES	YES	--	BOTH	NO	NO
Mississippi	YES	--	--	NO	YES	YES
Missouri	--	--	--	NO	NO	NO
Montana	YES	--	--	NO	NO	NO
Nebraska	YES	--	--	NO	NO	NO
Nevada	YES	--	--	NO	NO	NO
New Hampshire	YES	--	--	NO	NO	NO

TABLE B-8. Cont.

STATE	LEGISLATIVE INTENT				Permit Structure cover costs of road damage caused by overweight vehicles ¹	Fines cover costs of road damage caused by overweight loads ²	Fine structure economically discourages truckers from overloading ³
	Deter Overweight Use	Cover Damage & Administration Costs	Other				
New Jersey	YES	YES	--	NO	NO	NO	NO
New Mexico	--	YES	--	NO	NO		
New York	--	YES	--	YES	YES	YES	YES
North Carolina	YES	YES	--	NO	NO	NO	YES
North Dakota	YES	YES	--	NO	NO	NO	YES
Ohio	YES	--	--	NO	NO	NO	NO
Oklahoma	YES	--	--	NO	NO	NO	NO
Oregon	YES	--	--	NO	NO	NO	NO
Pennsylvania	YES	--	--	YES	YES	YES	YES
Rhode Island	YES	YES	--	YES	YES	YES	YES
South Carolina	YES	--	--	NO	NO	NO	NO
South Dakota	YES	--	--	NO	NO	NO	
Tennessee	YES	YES	--	NO	NO	NO	NO
Texas	--	--	YES ⁴	NO	NO	NO	NO
Utah	YES	YES	--	NO	NO	NO	NO

TABLE B-8. Cont.

STATE	LEGISLATIVE INTENT				Permit Structure cover costs of road damage caused by overweight vehicles ¹	Fines cover costs of road damage caused by overweight loads? ²	Fine structure economically discourages truckers from overloading? ³
	Deter Overweight Use	Cover Damage & Administration Costs	Other				
Vermont	YES	--	--	NO	NO	NO	
Virginia	YES	--	--	NO	UNKNOWN	YES	
Washington	YES	--	--	NO	NO	NO	
West Virginia	YES	--	--	NO	NO	NO	
Wisconsin	--	--	YES ^a	NO	NO	NO	
Wyoming	--	YES	YES ^c	NO	NO	NO	

^aUnknown

^bIntent was to keep these fines in the Justice of Peace courts, and out of the County Courts where the court dockets are very crowded.

^cIntent was to attempt to make carriers conform to rules and regulations governing transportation.

COMMENTS:

¹Alabama: It is hard to say. With the axle weight restrictions that we impose on permitted loads, we hope we are more or less approximating the impact of legal loads.

Arkansas: Permit fee structure remains the same as enacted in 1955.

Connecticut: Fee based on administrative cost to issue permit.

D.C.: Federal law pre-empts this consideration.

Georgia: Should be ton-mile basis.

Idaho: Based on the study on civil penalties for overweight violations.

Indiana: Unsure. The bulk of the permit fee is for administrative processing fee.

Kentucky: Most of Kentucky's permit fees barely cover the cost of administration.

TABLE B-8. Cont.

COMMENTS (Cont.):

- ¹Minnesota: Yes. Fee structure is based on technical research for single trip fees.
No. Legislation reduced annual permit fee and is lower than road damage.
North
Dakota: Permit fees for overweight should probably be increased.
Ohio: Designed to cover administrative costs only.
Oregon: Legislation to change this is being prepared for our 1989 Legislature (HB 2112).
Washington: Total permit revenues for the state cover a very small percentage of total maintenance costs per year.
- ²Arkansas: All fines imposed by the judiciary remain with the local courts -- only penalties and fees are earmarked for highway, road, and street purposes.
Connecticut: Have not determined road damage due to overweight loads.
D.C. Money from fines is placed in General Fund subject to appropriation.
Georgia: Should be raised to a minimum of 10 to 12 cents per pound.
Idaho: Based on the study on civil penalties for overweight violations.
Indiana: No extensive study. The IDOH is interested in working with other State agencies on this area.
Kentucky: Only one type of fine is returned to the dedicated Road Fund. All others are sent to the General Fund and are unavailable to use on roads.
Minnesota: Fines are either criminal or civil penalty. Criminal penalty fines are less than actual damage or administrative court costs. Civil penalty is a very effective tool because it addresses two areas of concern for industry: 1) Fines increase geometrically; 2) Liability extends to the shipper as well as the trucking company.
Mississippi: Fines are probably sufficient but enforcement may be better emphasized.
Missouri: Fine money goes to schools in the county where violation occurs.
North
Dakota: The exact amount of damage caused by overweight loads cannot be easily determined.
Ohio: Fines generally go to the local court, not the highway fund.

TABLE B-8. Cont.

COMMENTS (Cont.):

² Oregon:	Oregon fines go to court, then to the State where they are divided again using state, county and city percentages.
Pennsylvania:	Only for vehicles caught.
Virginia:	Road damage cannot be assessed for comparison.
Washington:	The fine fees are used principally to cover court costs. Very little finds its way back into road funds.
³ Alabama:	The word discourage is somewhat subjective. It likely has some discouraging effect but not to the degree desirable.
Alaska:	The rate per pound should increase as the amount of overweight increases.
Connecticut:	The fines do--getting the judicial system to impose the fine is another matter.
D.C.:	Annual permits allow certain overloading.
Florida:	The "\$.05 per pound" assessment has not changed since the 1940s.
Georgia:	If the vehicle is substantially overloaded, the fine structure is a deterrent.
Idaho:	No, based on the study "Civil Penalties for Overweight Violations".
Maine:	Not sufficiently -- fine, if and when caught, is considered a cost of doing business (overlooked) -- net result is economically positive for trucker under existing conditions.
Maryland:	With the increase in enforcement resources, we believe we are seeing greater efforts toward compliance -- new vehicles with lighter construction (fiberglass bodies and aluminum trailers) and a greater use of triaxle and split-axle configurations. Mandatory off-loading for the heavier violations is a very effective deterrent.
Massachusetts:	A qualified yes. Overloading is discouraged and still exists.
Michigan:	All fines collected are given to the library located in the county of the fine.
Minnesota:	Civil weight law does discourage them to some extent but there have been plea bargain and follow-through problems in the courts.
Mississippi:	Enforcing that structure is the key.
Nebraska:	It may be to some extent, but not completely.

TABLE B-8. Cont.

COMMENTS (Cont.):

North
Dakota: But only in the heavier weight brackets.
Ohio: Mandatory off-loading and vehicle impoundment are the primary deterrent.
Vermont: Except refusal to weight -- fine is \$2,500. We have had only one refusal in years since it was passed.
Virginia: Violations are less than 1% of the number of trucks weighed.
Washington: I suspect that fines are considered a minor cost of doing business and are figured into the price charged for hauling.