

**TRUCK WEIGHT AND LENGTH LIMITS**

**by**

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## INTRODUCTION

Motor carrier regulation generally falls into three categories: (1) economic regulation, (2) safety regulation, and (3) highway protection. Economic regulation typically includes control of rates, service, entry and exit. Safety regulation is designed to protect the users of the highways. Regulations concerning truck sizes and weights (highway protection) are implemented to prevent excessive wear and tear on the nation's highways and bridges. Much of the regulation concerning truck sizes and weights is left to the discretion of individual states although certain federal limitations may exist. Maximum weight limitations are normally set by the federal government for interstates and federal highways. State jurisdictions may exceed these maximums only on state highways.

## MAXIMUM VEHICLE WEIGHTS

The United States Congress first set maximum weights when it authorized the interstate highway system through passage of the Federal Highway Act in 1956. Limits were set at 18,000 pounds for single axle vehicles, 32,000 pounds for tandem axles, and 73,000 pounds for gross vehicle weight (GVW). In 1974, the Federal Highway Amendment Act was enacted and limits were increased to 20,000 pounds for single axles, 34,000 pounds for tandems, and 80,000 pounds for GVW. Maximum weights remain at these levels today.

Three states, Arkansas, Illinois, and Missouri have not increased vehicle weight limits on interstate highways to maximum levels set by Congress in 1974 (Table 1 and Figure 1). These states have retained weight limits at pre-1974 levels (73,280 pounds). Three other states, Indiana, Mississippi, and Tennessee retained pre-1974 weight limits

**TABLE 1. MAXIMUM PRACTICAL GROSS WEIGHT BY STATE 1982.**

JURISDICTION	5 AXLE TRACTOR SEMI-TRAILER		5 AXLE TWIN COMBINATION		MAXIMUM WEIGHT	
	INTERSTATE	OTHER	INTERSTATE	OTHER	INTERSTATE	OTHER
Alabama	80,000	88,000	NP	NP	80,000	92,400
Alaska	--	80,000	--	88,500	--	109,000
Arkansas	80,000	80,000	80,000	80,000	80,000	80,000
Arizona	73,280	73,280	73,280	73,280	73,280	73,280
California	80,000	80,000	80,000	80,000	80,000	80,000
Colorado	80,000	85,000	80,000	85,000	80,000	85,000
Connecticut	79,500	79,500	NP	NP	80,000	80,000
Delaware	80,000	80,000	80,000	80,000	80,000	80,000
Florida	79,500	79,500	79,500	79,500	79,500	79,599
Georgia	80,000	80,000	79,000	79,000	80,000	80,000
Hawaii	79,500	79,500	80,000	88,000	80,800	88,880
Idaho	80,000	80,000	80,000	92,000	80,000	105,500
Illinois	73,280	73,280	73,280	73,280	73,280	73,280
Indiana	80,000	80,000	80,000	80,000	80,000	80,000
Iowa	80,000	80,000	80,000	80,000	80,000	80,000
Kansas	80,000	80,000	80,000	85,500	80,000	85,500
Kentucky	80,000	80,000	80,000	82,000	80,000	82,000
Louisiana	80,000	80,000	80,000	80,000	83,400	88,000
Maine	80,000	80,000	NP	NP	80,000	80,000
Maryland	80,000	80,000	80,000	80,000	80,000	80,000
Massachusetts	80,000	80,000	NP	NP	80,000	80,000
Michigan <sup>a</sup>	80,000	80,000	80,000	80,000	148,000	148,000
Minnesota <sup>a</sup>	80,000	80,000	80,000	80,000	80,000	80,000
Mississippi	80,000	80,000	80,000	80,000	80,000	80,000
Missouri	73,280	73,280	73,280	73,280	73,280	73,280
Montana	80,000	80,000	80,000	80,000	80,000	80,000
Nebraska	80,000	80,000	80,000	86,500	80,000	95,000
Nevada	80,000	80,000	80,000	88,500	80,000	109,000
New Hampshire	80,000	80,000	NP	NP	80,000	80,000
New Jersey	79,500	79,500	79,500	79,500	80,000	80,000
New Mexico	80,640	80,640	86,400	86,400	86,400	86,400
New York	79,500	79,500	79,500	79,500	80,000	80,000

**TABLE 1. MAXIMUM PRACTICAL GROSS WEIGHT BY STATE 1982.**

JURISDICTION	5 AXLE TRACTOR SEMI-TRAILER		5 AXLE TWIN COMBINATION		MAXIMUM WEIGHT	
	INTERSTATE	OTHER	INTERSTATE	OTHER	INTERSTATE	OTHER
North Carolina	79,800	79,800	NP	NP	79,800	79,800
North Dakota	80,000	80,000	80,000	85,500	80,000	105,500
Ohio	80,000	80,000	80,000	80,000	80,000	80,000
Oklahoma	80,000	80,000	80,000	85,500	80,000	90,000
Oregon	80,000	80,000	80,000	80,000	80,000	80,000
Pennsylvania	80,000	80,000	NP	NP	80,000	80,000
Rhode Island	80,000	80,000	NP	NP	80,000	80,000
South Carolina	79,500	80,600	NP	NP	80,000	80,600
South Dakota	80,000	80,000	85,500	80,500	80,000	95,000
Tennessee	80,000	80,000	NP	NP	80,000	80,000
Texas	80,000	80,000	80,000	80,000	80,000	80,000
Utah	80,000	80,000	80,000	80,000	80,000	80,000
Vermont	80,000	80,000	NP	NP	80,000	80,000
Virginia	79,800	79,800	NP	NP	79,800	79,800
Washington	80,000	80,000	80,000	80,000	80,000	80,000
West Virginia	79,500	79,500	NP	NP	80,000	80,000
Wisconsin	80,000	80,000	NP	NP	80,000	80,000
Wyoming	80,000	84,000	80,000	92,000	80,000	101,000
District of Columbia	80,000	80,000	NP	NP	80,000	80,000

<sup>a</sup>Certain restrictions also apply.

**SOURCE:** American Trucking Associations, Inc., "Summary of Size and Weight Limits." January 1982.

until 1981. It is interesting to note that all six states are located along the Mississippi River and have substantial barge traffic. Whether or not this is a factor inhibiting increases in maximum weights is uncertain. However, both the railroad and water carrier industries have lobbied against increased truck sizes and weights in the past.

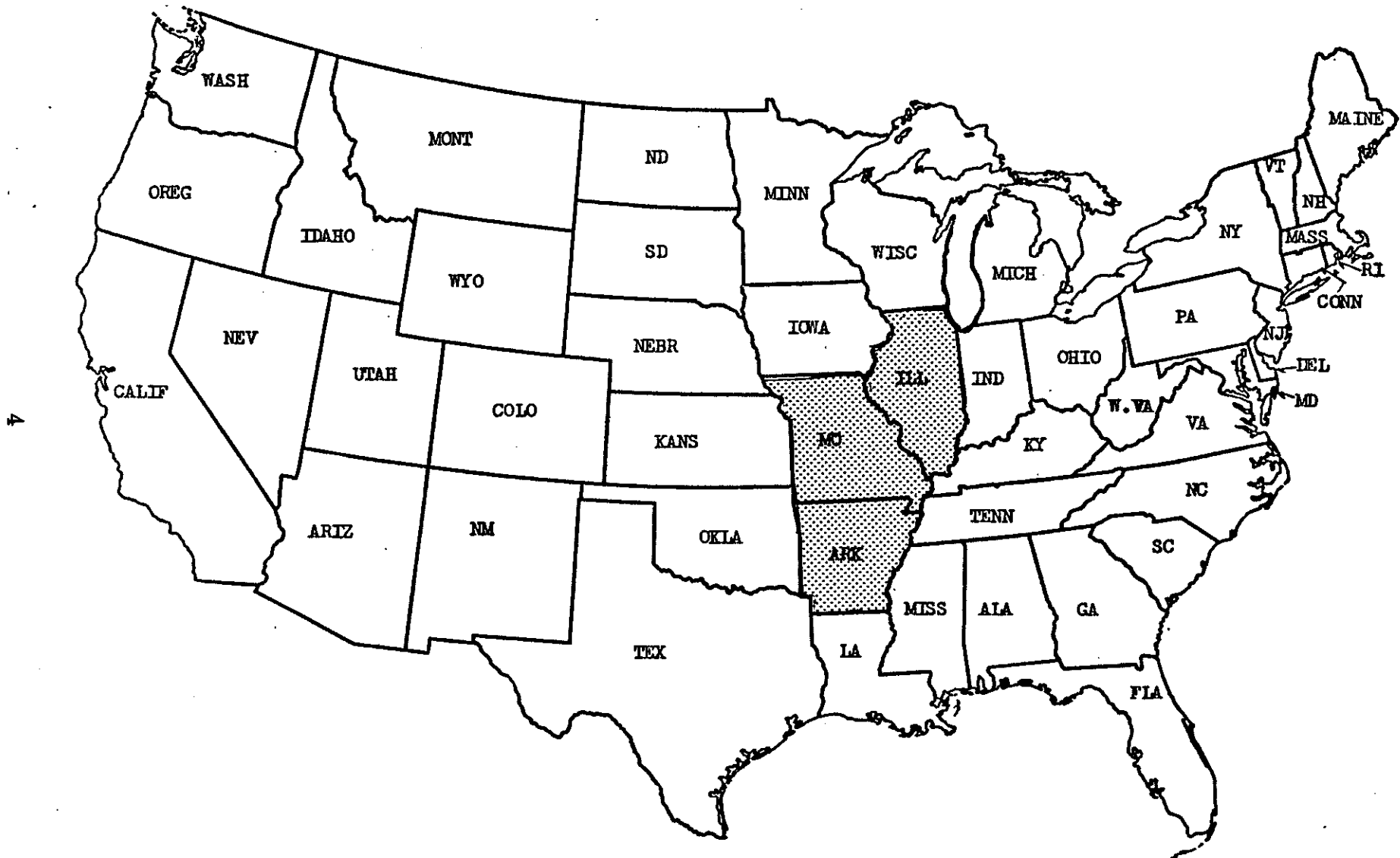


Figure 1. States Limiting Gross Vehicle Weight to 73,280 Pounds.



## TRUCK SIZES

Motor carriers are limited as to maximum lengths, widths, and heights. Widths and heights are fairly standard among the states, but maximum lengths vary considerable (Table 2). Motor vehicles are normally restricted to widths of 96 inches and heights of 13 feet 6 inches. Maximum lengths of tractor-semitrailers vary between 55 feet and 75 feet. Maximum lengths of twin trailer combinations vary between 55 feet and 85 feet. Fifteen states and the District of Columbia do not permit twin trailer combinations. Three states that permit twin trailer combinations, Georgia, Mississippi, and New Jersey restrict their use by limiting the maximum length on these combinations. Georgia and New Jersey limit twin trailer lengths to 55 feet while Mississippi has a maximum length of 60 feet on twin trailer combinations. (Refer to Figure 2 for illustrations of tractor-semi-trailers and twin trailer combinations).

**TABLE 2. SUMMARY OF WIDTHS, HEIGHTS, AND LENGTHS BY STATE 1982.**

JURISDICTION	WIDTH	HEIGHT	LENGTH		
			TRUCK	TRACTOR SEMI-TRAILER	TWIN COMBINATION
Alabama	96	13-6	40-0	60-0	NP
Alaska	96	13-6	40-0	65-0	70-0
Arizona	96	13-6	40-0	65-0	65-0
Arkansas	96	13-6	40-0	60-0	65-0
California <sup>a</sup>	96	13-6	40-0	60-0	65-0
Colorado <sup>a</sup>	96	13-0	35-0	70-0	70-0
Connecticut	102	13-6	60-0	60-0	NP
Delaware	96	13-6	40-0	60-0	65-0
Florida <sup>a</sup>	96	13-6	40-0	55-0	NP
Georgia	96	13-6	60-0	60-0	55-0
Hawaii	108	13-6	40-0	60-0	65-0
Idaho <sup>a</sup>	96	14-0	40-0	65-0	75-0
Illinois <sup>a</sup>	96	13-6	42-0	60-0	65-0

**TABLE 2. SUMMARY OF WIDTHS, HEIGHTS, AND LENGTHS BY STATE 1982.**

JURISDICTION	WIDTH	HEIGHT	LENGTH		
			TRUCK	TRACTOR SEMI-TRAILER	TWIN COMBINATION
Indiana	96	13-6	36-0	60-0	65-0
Iowa	96	13-6	40-0	60-0	65-0
Kansas	96	13-6	42-6	65-0	65-0
Kentucky <sup>a</sup>	96	12-6	35-0	57-9	65-0
Louisiana <sup>a</sup>	96	13-6	40-0	65-0	65-0
Maine <sup>a</sup>	96	13-6	45-0	60-0	NP
Maryland <sup>a</sup>	96	13-6	40-0	55-0	65-0
Massachusetts	96	13-6	35-0	60-0	NP
Michigan <sup>a</sup>	96	13-6	40-0	60-0	65-0
Minnesota	96	13-6	40-0	60-0	65-0
Mississippi	96	13-6	35-0	60-0	60-0
Missouri <sup>a</sup>	96	13-6	40-0	55-0	65-0
Montana <sup>a</sup>	96	13-6	40-0	65-0	65-0
Nebraska	96	14-6	40-0	65-0	65-0
Nevada <sup>a</sup>	96	14-0	40-0	55-0	70-0
New Hampshire <sup>a</sup>	96	13-6	35-0	60-0	NP
New Jersey	96	13-6	40-0	55-0	65-0
New Mexico <sup>a</sup>	96	13-6	40-0	65-0	65-0
New York <sup>a</sup>	96	13-6	35-0	60-0	65-0
North Carolina <sup>a</sup>	96	13-6	40-0	55-0	NP
North Dakota <sup>a</sup>	96	13-6	40-0	75-0	75-0
Ohio	96	13-6	40-0	60-0	65-0
Oklahoma <sup>a</sup>	96	13-6	40-0	65-0	65-0
Oregon <sup>a</sup>	96	14-0	40-0	60-0	75-0
Pennsylvania <sup>a</sup>	96	13-6	40-0	60-0	NP
Rhode Island	102	13-6	40-0	60-0	NP
South Carolina <sup>a</sup>	96	13-6	40-0	60-0	NP
South Dakota	96	13-6	45-0	70-0	70-0
Tennessee	96	13-6	40-0	60-0	NP
Texas	96	13-6	45-0	65-0	65-0
Utah	96	14-0	45-0	65-0	65-0

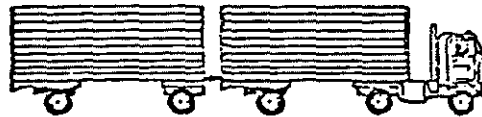
**TABLE 2. SUMMARY OF WIDTHS, HEIGHTS, AND LENGTHS BY STATE 1982.**

JURISDICTION	WIDTH	HEIGHT	LENGTH		
			TRUCK	TRACTOR SEMI-TRAILER	TWIN COMBINATION
West Virginia <sup>a</sup>	96	12-6	40-0	55-0	NP
Wisconsin	96	13-6	35-0	60-0	NP
Wyoming <sup>a</sup>	96	14-0	60-0	85-0	85-0
District of Columbia	96	13-6	40-0	55-0	NP

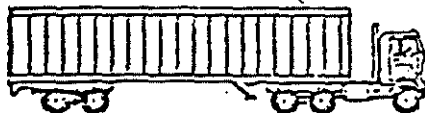
<sup>a</sup>Certain restrictions also apply.

SOURCE: American Trucking Associations, Inc., "Summary of Size and Weight Limits." January 1982.

TYPICAL FIVE-AXLE TRACTOR-SEMITRAILER COMBINATION AND FIVE-AXLE TWIN TRAILER COMBINATION.



65-FOOT TWIN-TRAILER COMBINATION WITH 27-FOOT TRAILERS



60-FOOT TRACTOR-SEMITRAILER COMBINATION WITH 45-FOOT TRAILER

Figure 2. Illustration of Five-Axle Tractor-Semitrailer and Twin Trailer Combinations.

Source: Barr, James R., "An Environmental Assessment of Increased Truck Sizes and Weights," Issues in Truck Sizes and Weights, Technical Report TSW-81-14, American Trucking Association, Inc., Washington, D.C., 1981.

## **Issues in Truck Sizes and Weights**

Arguments for or against increasing truck size and weight limits generally involves two central issues: (1) highway wear, and (2) fuel efficiency. Several studies conducted by state agencies conclude that increased truck weights will result in additional highway costs.\* While the studies all result in the same general conclusion (increased highway maintenance costs), there is no consensus on procedures and extent of the costs.\*\*

Increased fuel efficiency was one of the factors contributing to increased sizes and weights in the mid-1970s. Kolins estimated that the use of 65 foot twin trailers saved over 595 million gallons of diesel fuel from 1975 to 1980.\* Another 700 million gallons of fuel was saved by states which allowed 80,000 pounds GVW.\*\* Proponents of uniform size and weight limitations among the states emphasize the fuel efficiency that was gained by the states that allow 65 foot twin trailers and 80,000 pounds GVW.

## **EFFECTS ON INTERSTATE COMMERCE**

Practically all of the states bordering or east of the Mississippi River restrict the use of twin trailer combinations (Figure 3). Delaware, Indiana, and Ohio are the only eastern states that permit twin trailer combinations up to 65 feet on all major highways. The

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\*For a review of various state studies see, Walton, C.M., Chienpei Yu, Paul Ng, and Susan Tobias, "**Truck Sizes and Weights: A Comparison of State Studies.**" Paper presented at the 23rd Transportation Research Forum, New Orleans, Louisiana. October 1982.

\*\*Ibid.

\*Konlins, Roger W., Improved Truck Size and Weight Limits: Their Contribution to Conserving Energy Over the period 1975-1980." **Issues in Truck Sizes and Weights**, Technical Report TSW-81-2. American Trucking Associations, Inc., Washington, D.C. , 1981.

\*\*Ibid.

remaining states either do not permit twin trailers, restrict these combinations to designated highways, or limit the maximum length of these combinations to lengths less than 65 feet. Motor vehicles that transport commodities in these states must comply with the applicable weight and length limitations regardless of where the payload is originated or terminated. Locklin contends that long distance interstate transportation by motor vehicle is handicapped by diversified state size and weight limitations.\*\*\* Clearly, motor vehicles that are used in interstate commerce are not utilized efficiently if capacity must be sacrificed to comply with size and weight restrictions. That is, vehicle capacity could be used more efficiently operating in states with homogenous size and weight restrictions compared to operating between states with contrasting restrictions, *ceteris paribus*.

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\*\*\*Locklin, Philip D., "Development of Motor Carrier Transportation," **Economics of Transportation**, 7th Edition. 1972.

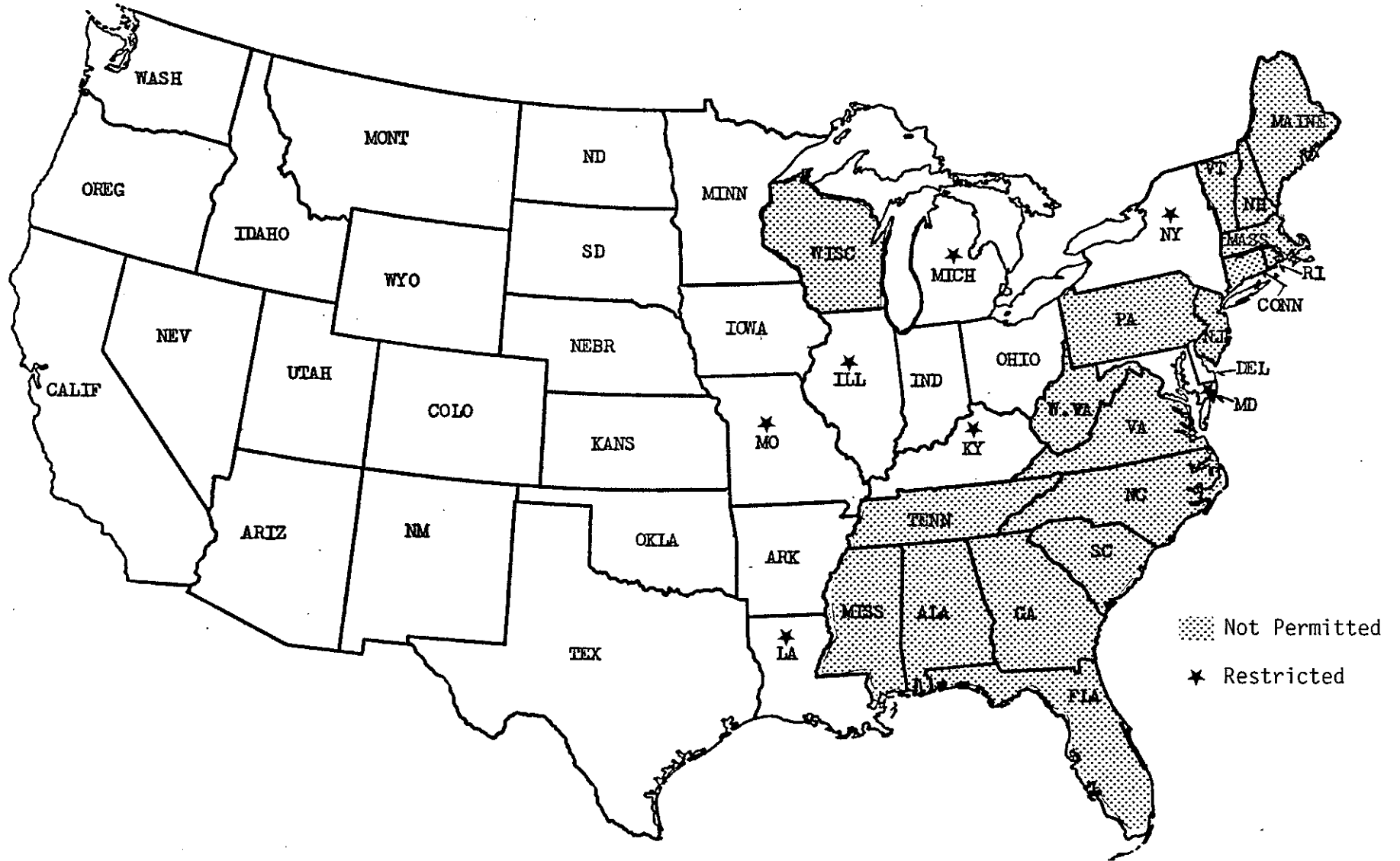


Figure 3. States not Permitting or Limiting Use of 65 Foot Twin Trailer Combinations.

## CONCLUSIONS

There is a lack of uniformity among the states with respect to maximum weight and length requirements for motor vehicles. This diversity handicaps long distance transportation of vehicles that are involved in interstate commerce. On the other hand, states that increase size and weight limits are faced with increased costs of maintaining the highways. Generally, states west of the Mississippi River are more liberal with respect to maximum truck lengths and weights than eastern states.