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Longer Combination Vehicles (LCVS) Economics Versus Public Safety

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ABSTRACT

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Prepared by
Colonel Herb Parr
April 13, 1992

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ABSTRACT

LONGER COMBINATION VEHICLES (LCVS) ECONOMICS VERSUS PUBLIC SAFETY

Global production will require transport companies to time deliveries in order to meet assembly requirements using components shipped from many areas of the world. To be competitive, we must use every available means of technology at our disposal. Longer Combination Vehicles (LCVs) increase our transportation productivity. They have operated safely in 20 states, and in some cases for more than 30 years. In my opinion, the Transportation Bill of 1991 prohibited the expanded use of LCVs because the federal government thought it to be the politically correct thing to do. They certainly did not have any convincing evidence to support their stand. I believe the states' Departments of Transportation should be allowed to decide the LCV issue on a state-by-state basis. And, the federal government should provide general oversight. I predict that the trucking industry will prove that LCVs are a safe and economical means of distributing products. And, eventually the 1991 Federal mandate restructing their expansion will be lifted. States will be given the authority to approve LCV use on their highway system.

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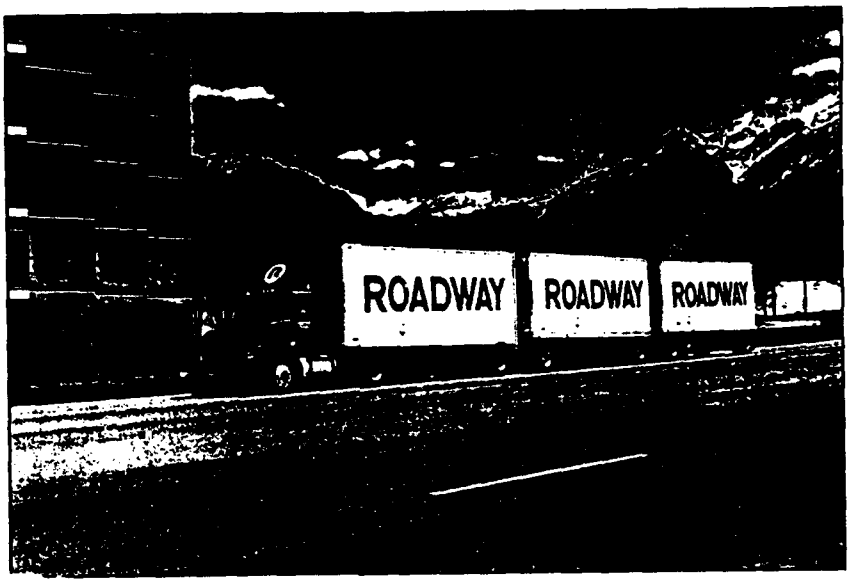
INTRODUCTION



The new federal rules governing the use of twin trailer trucks and other larger combination vehicles represent yet another development in the 70-year history of state and federal regulation of motor vehicle size and weight. Throughout this period, as automotive and highway technologies have developed, vehicles have become progressively larger and legal size limits have been revised to accomodate them. With each revision of size limits, the government has been faced with the problem of balancing transportation economics against highway costs and public safety. The $151 billion, six-year transportation bill passed Congress this year. As part of the bill, truck weights and sizes were frozen at current levels nationwide,

preventing further spread of double and triple-trailer combinations.[1]

The purpose of my research is to determine whether the restrictions placed on LCVs in the 1991 Transportation Bill or additional federal regulations, are necessary. In order to reach a conclusion and make a recommendation, I will assess the economic impact that longer combination vehicles would have on the motor carrier and railroad industries. And, I will evaluate the cause and effect relationship between longer combination vehicles and public safety. The scope of this research will be limited to an analysis of the safety risks involved with the use of more LCVs on our public highways and the potential economic benefit to both the consumer and the trucking industry.

The question of the cost benefits and safety of LCVs must be viewed in the context of the historical evolution of truck size and weight. However, the cumulative results have been that many highways today are exposed to much heavier, longer, and wider trucks and to greater volume of large-truck traffic than their designers envisioned. And, trucking has grown to be the largest freight transport mode in terms of the cost of providing services.

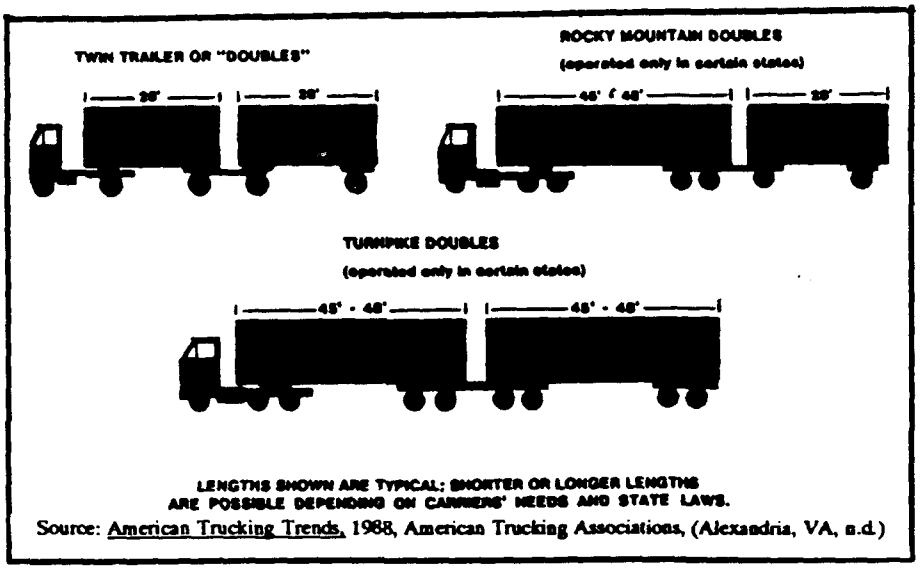
BACKGROUND AND HISTORICAL PERSPECTIVE

What are LCVs?

The term longer combination vehicles commonly refers to one of three types of vehicles: a truck tractor pulling three 28 or 28.5 foot trailers ("triples"), tractor trailers involving two 48 foot or 45 foot trailers ("turnpike doubles" or "double 48s"), or tractor-trailer combinations involving one 48 foot or 45 foot trailer and one 28 foot or 29 foot trailer ("Rocky Mountain doubles").[2]

TABLE 1

Truck Types



Source: American Trucking Trends, 1988, American Trucking Associations, (Alexandria, VA, n.d.)

These configurations provide certain types of trucking operations an additional flexibility and efficiency in the use of equipment that is impossible to achieve with conventional tractor-trailer combinations. But, most motor carriers are currently prevented from operating LCVs nationally. A brief discussion of federal regulation on motor vehicle sizes and weights is necessary to understand why.

LCVs - Longer than What?

The term longer combination vehicle begs a question: Longer than What? The answer is longer than the standard minimum established by federal law. Since 1982, federal law has required that states allow truck tractors pulling one 48 foot trailer ("48s") or truck tractors pulling two 28.5 foot trailers ("doubles") free access to the interstate highway system and the so-called national truck network. This network is a portion of the federal-aid primary highway system. What about weight?

More widespread use of LCVs is currently limited, not by statutory limits on length, but by a federal limit on overall vehicle weight. There are two federal weight laws for highway motor vehicles. The first is the "bridge formula". It requires vehicles to adhere to certain spacing of axles and limits axle weights. All motor vehicles traveling the interstate system must conform to the federal bridge formula. The second revelant federal law on weight prescribes a limit on gross weight of 80,000 pounds for motor vehicles operating on the interstate system.[3] It is the limit on gross vehicle weight that effectively prevents the broader use of LCVs.

GRANDFATHER PROVISIONS

LCVs are operated widely in the West and on certain eastern toll roads. They are allowed to operate because of grandfather exceptions to federal size and weight laws. When Congress authorized the funding and construction of the interstate highway system in 1956, rules for operation on these highways were also developed. This included for the first time, federal limits on axle weight, originally 73,280 pounds (later raised to 80,000 pounds). It was higher than the weight limit in some states and lower than others. So a grandfather clause was enacted to preserve state gross weight and axle-weight limits that exceeded the federal restrictions.

It is under these provisions that LCVs are able to operate today in some states. Those states with weight limits above 80,000 pounds were allowed to choose whether LCVs can operate on their highways, while states that had lower limits 35 years ago do not have this choice.

LCVs operate today in Western and Great Plains states and on 5 eastern toll roads. (See Table 2). In some of these jurisdictions, LCVs have been running for more than 30 years.

TABLE 2

Table 2: Operations of Longer Combination Vehicles (January 1991)

State	Triples	Turnpike Doubles	Rocky Mountain Doubles
AK (summer only)	X	X	X
AZ (I-15 only)	X	X	X
CO	X	X	X
FL (turnpike only)		X	
ID	X	X	X
IN (toll road only)	X	X	X
KS (doubles turnpike only; triples I-70 only)	X	X	X
MA (turnpike only)		X	
MT	X	X	X
NV	X	X	X
NY (thruway only)		X	
ND	X	X	X
OH (turnpike only)	X	X	
OK	X	X	X
OR	X		X
SD	X	X	X
UT	X	X	X
WA			X
WY			X

In none of these states, however, are LCVs allowed to travel without restriction. Everywhere they run, LCVs operate only under permits issued to individual trucking companies. They are allowed to use the longer vehicles only under specified conditions, on specified routes, and by drivers with specified training. Violations of the terms of these permits results in their revocation.

PROBLEMS

Economics: This tremendous growth within the motor carrier industry does not set well with the railroads who perceive LCVs to be a direct threat to their livelihood. They claim that LCVs would divert so much freight from the rail system that the railroads would be left destitute. The Association of American Railroads (AAR), warns that railroads stand to lose up to 52% of their profits.[4] The American Trucking Association contends that this is plainly nonsense. The railroads counter by challenging LCVs as a safety issue.

Safety: Not long ago, truckers were regarded as folk heroes, the guardian of America's long stretches of desolate highways. But, in the last few years, the glamour of trucking has given way to concern about safety. And, motorists have come to consider truckers less as protectors and more as wreckless and dangerous bullies. The trucking industry says that is not true. They say that LCVs have

established a sterling record of safety wherever they have operated. During 1989, the last year for which information is available, LCVs operated some 500 million miles on U.S. highways and were involved in just four fatal accidents.[5] What about the impact on our nation's highways?

Highway Infrastructure: The highway system is aging at the same time that demand, driven by population growth and changes in living and working patterns in growing. The costs of maintaining the highways are rising faster than the revenues that highway agencies receive in fuel taxes and other user fees. L. Lee Lane, executive director of the Intermodal Policy Division of the Association of American Railroads, believes that the trucking industry is exploiting the highway system. He advances the idea that highways have always been managed by the government. Therefore, policy decisions are not based upon the same rationale that a for-profit business would use. Because of Federal and State tax subsidies, he believes officials have yet to establish a "true market" for use of their highway system. Furthermore, he argues that truckers, especially those operating heavier longer combination vehicles, are not paying their fair share of the maintenance and expansion costs for the Nation's highway system. While this is not a new concern, it does impact on total cost and therefore, warrants further study and evaluation.

This issue has evolved into an emotional crusade for some interest groups. As such, it has not gone unnoticed by our politicians. We must ask ourselves; to what extent should the Federal government get involved? During this era of decentralization and deregulation, should the Federal government provide general guidance and oversight or should it regulate each state's highway safety program? In many ways this is similar to the dilemma over the 55 mile per hour speed limit. Additionally, should anything be done about the 20 states that have already integrated LCVs into their transportation system? As you can see this is an important subject that touches the lives of every American whether he is a traveller or a consumer. The proper application of regulation in this segment of the motor carrier industry needs to be resolved to the benefit of all.

MOTOR CARRIER INDUSTRY STRUCTURE

The motor carrier industry is a mature industry. This means that total vehicle demand varies slightly from year to year and there isn't much room for growth. The industry is also conservative. There have been no dramatic changes in equipment. We don't see revolutionary changes in equipment or procedures. Rather, we see evolutionary changes that in the aggregate, increase productivity from decade to decade. Some of these changes include: more streamlined tractors, use of fiberglass material and smaller tires, better braking systems, automatic transmissions, electronic data interchange, and pollution control. There is strong competition both within and outside the industry. Because of this, seemingly minor efficiencies such as those achieved through the use of LCVs, could generate essential profit.

Deregulation of the motor and rail industries has caused both industries to become more efficient or risk failure. Smaller truck fleets have gone out of business or

merged with the larger fleets. As a result, interstate and big regional fleets are in a better position to meet the market changes of the 1990's.

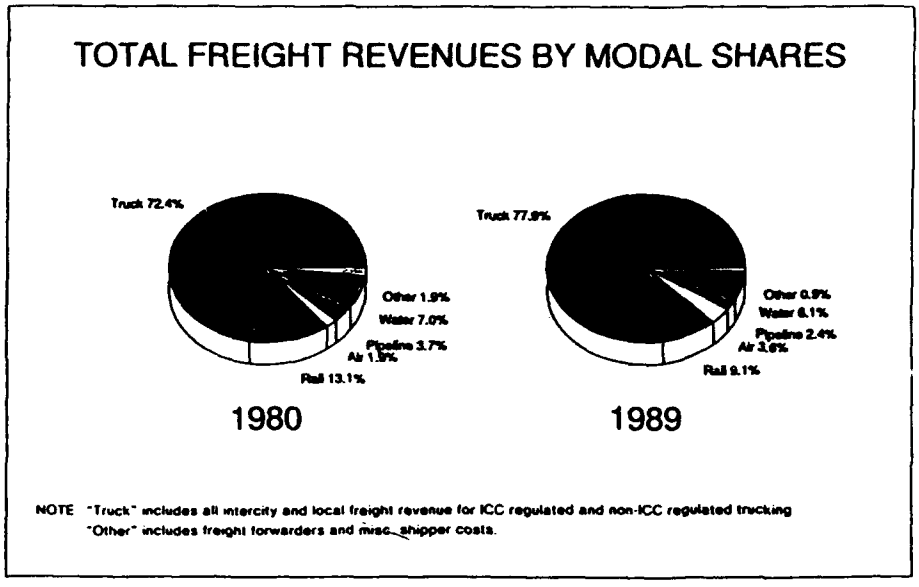
As our markets become more global in nature, there will be an ever increasing need for electronic data interchange and an emphasis on intermodal transportation. The global distribution system will become more extensive and sophisticated. Shippers will continue to rely more on the use of containers. Containers provide the security and accountability needed to withstand the rigors of intermodal transportation. Independent truckers and small fleets will not have the capital needed to purchase expensive electronic equipment and restructure to take advantage of global offerings. But, large motor carriers using LCVs would be competitive with rail for this traffic. And, LCVs could prove to be the more cost effective mode of transportation over certain routes and distances.

Despite the changes and complexities involved in global traffic, one element of transportation will remain constant. Shippers will demand quality service. Improved customer service will be the key to long-term revenue growth. Customers want first class service at reasonable cost. The trend is for shippers to use fewer carriers. They are willing to develop ad hoc partnerships with carriers that are dependable and service oriented. They want in-transit

visibility over their shipments and just-in-time delivery. Corporations want to reduce cost by minimizing their on-hand inventory. Motor carriers have responded by saving shippers $25 billion in freight payments and much of the $30 billion savings in inventory since 1980.[6] The point is that most of the inefficiencies have been eliminated from the industry. While there is room for improvement, we will not see such dramatic improvements in productivity over the next decade as we did in the 1980s.

How does this compare with the railroad? In terms of revenue, the trucking industry is the largest segment of the U.S. freight transportation market. The chart below illustrates the total freight revenues by modal shares for 1980 and 1989.[7] The bottom line is that rail has lost the majority of its market revenue share to trucks. This chart helps explain why the railroad industry is fighting so hard to prevent the expanded use of LCVs.

CHART



The American Trucking Association (ATA) wants to expand the use of LCVs. But, railroad and highway safety advocates have been successful in restricting LCV use to the states that now allow them. The ATA continues to promote the idea that individual states should be allowed to decide on their acceptability.

LCVS

BAD/GOOD

OPPONENTS OF LCVS

DRIVING PUBLIC

Keith Frederick, a Washington pollster, surveyed 1,000 people nationwide. The results of the survey reported that 82% of the people were "strongly or somewhat opposed" to twin and triple-trailer trucks. Some of the more vocal opponents refer to LCVs as "lethal combination vehicles".

INDEPENDENT DRIVERS ASSOCIATION

This 14,000 member owners-operators group opposes LCVs for safety reasons. Michael O'Connell, general counsel for the association argues that statistical debates are of little value compared to the experiences of those who drive LCVs. He reports that drivers operating triple-trailer trucks said: "Don't look in the mirror. When you look in

the mirror, you compensate for the third vehicle and go out of control."

INSURANCE INSTITUTE FOR HIGHWAY SAFETY

The Insurance Institute says big trucks, ranging in size from a tractor pulling a single trailer to a tractor pulling three 28-foot trailers, are three times more likely than passenger cars and small trucks to be involved in fatal crashes. Additionally, in fatal accidents between cars and big trucks, the car occupant is 35 times more likely than the trucker to be killed.[8]

ASSOCIATION OF AMERICAN RAILROADS (AAR)

The railroads argue that longer, heavier trucks (LCVs) threaten motorist and tear up highways. They say that LCVs challenge the economic well being of railroad. Furthermore, the railroad association contends that big trucks don't pay their fair share of highway taxes.[9] Railroads maintain that they are three times more fuel efficient than trucks. Also, they point out the trucking industries problem of noise and exhaust pollution as well as tire disposal. But, their most effective campaign has focused on LCV safety.

PROPONENT OF LCVs

AMERICAN TRUCKING ASSOCIATION (ATA)

The American Trucking Association believes that LCVs provide an opportunity for increased productivity. They argue that unless freight transportation continues to be substantially more efficient than those of our foreign rivals, Americans will find it more difficult to successfully compete abroad. ATA believes that the expanded use of LCVs on a state by state basis can be accomplished in a safe cost effective manner without ruining the railroad industry.

MOTOR CARRIERS

The trucking industry readily admits that LCVs increase productivity. But, they strongly disagree with the railroads assessment of their potential economic damage to rail traffic. The president of the ATA, Thomas Donohue, reports that 90% of the trucking companies "don't want LCVs, can't use them, and can't employ them." He further states that in 1989, heavy trucks drove 154 billion miles. And, they drove less than a half billion miles in combination vehicles. If you double that, he speculates, "it would be only seven tenths of 1% of the total volume of $260 billion in 1989."[10] This translates into a possible diversion of

$1.8 billion worth of traffic. This is in addition to that which is being transported by LCVs now.

IMPARTIAL ASSESSMENT

TRANSPORTATION RESEARCH BOARD

In June 1990 the board issued the results of its congressionally mandated study. If LCVs were used in all fifty states, the Transportation Review Board concluded, the U.S. transportation system would stand to save $5.2 billion annually. However, the cost of needed upgrades and repairs on some bridges on the interstate system would reduce the savings to the economy to $4.3 billion per year. This estimate was verified through a study conducted by the Trucking Research Institute (TRI) of the American Trucking Association Foundation. TRI estimated net savings to the economy of $4.4 billion a year

SAFETY ANALYSIS

While the National Transportation System provides enormous societal benefits, it poses a threat to the safety of the general public. Longer Combination Vehicles are perceived by other users of the highway system as presenting unacceptable risks to the lives of the driving public. Therefore, government and the general public must carefully weigh the costs and potential benefits of policy alternatives. People are uncomfortable sharing the highways with even larger trucks.

The National Transportation Policy was endorsed by President Bush in February 1990. It states that safety is the top priority for the Department of Transportation, (DOT). Essentially, the policy says DOT will not deregulate safety. Economic deregulation of transportation has reduced restriction on carriers' rates and routes, but it has not reduced the Federal commitment to safety. Accident rates are lower than they were 10 years ago, before deregulation and the President has established a firm goal of reducing accidents and fatalities further.[11]

I don't believe that NATIONWIDE spread of LCVs is possible under any circumstance. LCVs would be limited to specific routes within each state because of safety issues. There are more than 140 cities in the United States that have populations greater than 250,000. These cities are already experiencing horrendous traffic congestion. East Coast states, particularly those located in the Northeast, have such high density traffic over their existing road networks that it would not be practical to operate LCVs.

Evidence shows that LCVs (twins) probably have slightly more accident involvement per mile travelled than tractor-semitrailers operated under identical conditions and highway speeds. However, the 9 percent reduction in truck miles in operations that are converted from tractor-semitrailers to LCVs (twins) would approximately offset the higher rate of accident involvement per mile that LCVs (twins) exhibit.[12] Overall, LCVs (twins) appear to be about as safe a method of hauling freight as the tractor-semitrailers that they replace.

This assessment applies to the highway system as a whole; on individual roads, on which traffic conditions differ, the results may be very different. In my view, there are twelve Eastern and Northeastern states that if given the option, should not authorize the expansion of LCVs. Large city congestion and high density traffic would

simply not pass the common sense test for allowing LCVs to operate in these states.

ECONOMIC ANALYSIS

The railroads used an economic model to assess the effects that longer combination vehicles would have on their industry. They made two critical assumptions that directly impact the validity of their model. First, they assume nationwide spread of LCVs. Second, the model assumes rate decreases in response to competition. Their premise is that as traffic is diverted to truck, they would respond in turn by lowering rates on rail. They predict this would cause a loss of 20 percent of their traffic. Because of the diverted traffic, much of which would be high dollar value, railroads estimate that they would lose more than 50% of their profits.[13] Is this valid? Let's discuss these assumptions.

If seriously challenged by LCVs, I believe the railroads would reduce rates to retain market share. This would cause them to become less profitable in the short term. But, I do not agree that they would lose 50% of their profit over a sustained period of time. In fact, I argue that profitable rail companies could prevent the loss of

traffic to LCVs. How can they do it? It has much to do with the railroad's capital structure.

Since the original investment in a railroad is large, and it represents fixed and specialized capital, competition does not keep the earnings at a normal level.[14] Because of the huge sunk cost, railroads will continue operations as long as they can make some return on investment. The rail system's operating ratio, the proportion of operating revenue required to pay operating expense, averages about 75% compared to 95-97% for the trucking industry.[15] This means that the rail industry can lower freight rates and defeat challenges from LCVs. How does this work?

If a rail company is seriously challenged by LCVs over a particular route or commodity, it simply lowers its rates. This becomes seige work. The outcome is determined by who can outlast the other. Because of the railroads 20% advantage in operating ratio, it has the option to roll back prices, defer maintenance, and wait until the truck company backs off.

I recognize that the rail industry has a tremendous capital investment in land and plant and equipment. However, right of ways were purchased and in many cases, paid off in the 1800s and early 1900s. More recently, they have grown larger by buying out smaller lines at discounted

prices. Also, operating equipment does not need to be replaced as often as trucks. Furthermore, the rail industry enjoys lower variable expense because of its fuel efficiency. Taken together, these operating advantages place the railroads in an enviable position to underprice truck rates. I predict that there is an equal chance that railroads could increase traffic rather than lose it by lowering rates. How could that happen?

Demand for transportation is elastic. If transportation prices are lowered, there will be a greater demand for the service which will create additional revenue. That is why open competition in the marketplace is healthy. It helps fix prices at an equilibrium. The most efficient mode will prevail, shippers will save money, and our distribution system will strengthen. A good example of this is the efficiencies that the railroad industry created through the use of double stack trains. Let's evaluate what the trucking industry has said about the economic benefits of LCVs.

The trucking industry says that while LCVs are more efficient than conventional tractor trailers, they don't present a real threat to the economic well being of the rail industry. Railroads disagree with this assessment. I believe that reality is closer to the motor carrier industry's prediction.

I see the real challenge to rail traffic in the area of twin-48s not triples. I base this on the characteristics inherent in intermodal shipments. This is one growth area that the railroads do not want to lose. I believe that intermodal shipments will continue to grow over the next decade. This blending and shifting of transportation modes is good for our economy. As we move to compete in the global marketplace, we must continue to develop and refine our transportation system. Security, visibility and standardization are the watchwords of a global distribution system. The motor carriers' use of twin-48s could challenge the railroad's intermodal shipments. But, I view this as normal and healthy. The question then is to what extent should LCVs expand?

First, let's discuss the potential growth of LCVs in the 20 states where they currently operate. I believe that there is little potential for expanded use. The population centers are such that they are located close to major highways. LCVs travel over these intercity highways now. The blend between LCVs and rail has already been established. Furthermore, I don't predict any new commodity or technological change that is likely to alter the balance during the next decade. Given that situation, and what I have previously argued about states restricting LCVs from operating in the East and Northeast, I believe that LCV

expansion would be limited to 18 additional states for a possible total of 38.

I don't think that LCVs (twin-48s) are going to be able to divert substantial trafic from the railroads. They would be competing heads up with double-stack trains. Double-stack trains now account for about 25 percent of total intermodal capacity. And, the share of container traffic (as opposed to trailers on flatcars) in intermodal loading has nearly doubled, from 25% in 1980 to nearly 50% in 1991. Railroads recognize the growth potential of intermodal and efficiencies of double-stack trains. The major rail carriers are investing more capital into their infrastructure so they can accomodate additional double-stack trains.

Only 5-10% of the for-hire trucking companies are interested in LCVs. They are reluctant to expand because of the additional capital investment, higher cost of labor for quality drivers, and intense competition from the railroads. Insurance rates are much higher for LCVs and sometimes difficult to find. Truckers are operating at a much lower rate of return on investment than rail. Additionally, mixed freight trains are 200-420 percent more efficient than 48-foot van trailers and double-stack trains are 150-240% more fuel efficient than tractors pulling container trailers.[16] In my view, long haul truckers competing with double-stack

trains for the movement of containers beyond 500-600 miles, are in for a tough battle. Further aggravating the problem for the trucking industry is their inability to predict future cost of labor and fuel. As an example, fuel prices fluctuated wildly from $1.00 per gallon to $1.60 per gallon just prior to the Iraqi war. A world-wide shortage of oil caused by war or an OPEC embargo could easily escalate motor carrier's cost beyond profitability. Railroads, because they operate with less variable cost than trucks, are structured better to handle short term world crises. So - What is the best use of LCVs?

In my view, triple trailers "pups" hauling small, time sensitive packages, presents the best opportunity for LCVs. United Parcel Service and Roadway have found LCVs to be extremely cost effective. But, they are not competing with the railroads. They are providing a relatively low cost service that has challenged the air freight industry to either become more efficient or fail. LCV "triples" provides an economy of scale advantage for the movement of small packages between major cities that is difficult to match. I think this service area will continue to grow. The air freight carrier industry will not be able to retain this traffic.

CONCLUSIONS

The 1991 Department of Transportation Bill banned expansion of longer combination vehicle (LCV) operations beyond the 20 states in which they are now legal. The trucking companies most concerned were volume concious carriers who need more room because they run out of space before hitting weight limits.

The railroads created a great deal of fear of LCVs especially in the East. For the driving public, LCVs present a psychological threat. Since 1982, numerous government and private studies have looked into the LCV safety issue. Nothing concrete has been determined. In my assessment, LCVs are slightly more difficult to operate than conventional tractor-trailer combinations. As a result, driver experience, weather, and route selection are absolutely critical to ensure safe operations. But, when all things are considered, LCVs have operated safely over certain select routes. And, they have done this for 30 years.

The only issue that rail and truck advocates agree upon is that LCVs increase productivity. Costs on a per-trailer or per-ton mile drop by 40%. In my opinion, despite the rhetoric concerning safety, railroads and motor carriers are more concerned about the economic impact that expanded use of LCVs would have on their respective industries. The overall savings is still a matter of hot debate. Railroads consider LCV expansion to be a life or death threat. Motor carriers say that LCVs have limited expansion utility and that railroads used the safety issue as an excuse to bash trucking.

In my view, neither the railroad nor the motor carriers, have done quality research to support their position. This is what I think. First, LCVs (triples) provide a tremendous cost savings opportunity in the delivery of high dollar, bulky, time sensitive packages such as those moved by United Parcel Service. This places them in direct competition with air freight delivery, not rail. Second, despite the hoopla, LCV (twin-48s) are capable of diverting rail traffic only to the extent that rail allows them to do so. Why do I say this? The railroads are structured in such a way that they can defer maintenance of equipment and right of ways and lower rates for sustained periods. Railroads have used this technique in past years. This would cause the motor carriers to back away from the rail industry's long distance intermodal shipments. Some

shorter routes may prove cheaper to move by LCV. But, this would be the exception and represent only a fraction of the traffic. Why did the railroad spend $25 million to defeat LCV expansion?

Railroads considered the $25 million they spent to be a bargain compared to what it could have cost them to lower prices and defeat LCVs in the marketplace. Railroads believe they could lose 52% of their profits to LCVs. What about this potential savings to the shippers? The Transportation Research Board reported in their 1990 study that net savings to the economy would be $4.4 billion per year. I think that estimate is too generous. They made the assumption that LCVs would be allowed to expand to all 50 states including the traffic congested Northeastern states. I estimate the savings to be closer to $3-3.5 billion a year. This estimate is based on an expansion of LCVs' operations in an additional 18 states versus 30. Because of the severe traffic congestion, I view it as impractical for LCVs to operate in 12 Northeastern states.

LCVs present a tremendous opportunity to increase productivity. However, it would take the industry many years to generate sufficient capital to purchase equipment and build the infrastructure required such as trailer drop lots and operational control systems. LCVs would not bankrupt the major railroads any more than the rail

industry's introduction of double-stack cars and roadrailers will destroy the trucking industry. Technological advances such as LCVs, should be encouraged and put to work in an environment where they can increase productivity without unnecessarily endangering lives.

Thomas Jefferson once said, "Governments that govern least govern best." I believe that states should be allowed to license double and triple-trailer rigs under special permit programs. This approach would allow LCVs to operate over certain specific routes on a state-by-state basis. States would authorize safety restrictions and levy extra fees to cover any excess road and bridge wear caused by LCVs.

In my opinion, the Federal Department of Transportation should provide general oversight concerning the operation of LCVs. They should ensure that states establish programs that require special driver qualifications and licensing. The federal government should require states to provide standardized accident reporting procedures that could be used to identify safety trends and hazardous routes. The ultimate decision to allow states to continue operations over a specific route would be the responsibility of the federal government. The final decision should be based on the issue of public safety; not economics. The federal government must not place itself in the position of

arbitrating economic disagreements between the rail and motor carrier industries. They have failed in the past and would continue to fail in this endeavor. The "open market" is the place where economic choices should be decided.

In order to ensure that LCVs pay their fair share of the cost of maintaining a safe highway infrastructure, the Department of Transportation should establish a separate users charge for LCVs. This money would be used by the states in which LCVs operate to pay for highway and bridge improvements.

Finally, there is much controversy on whether or not LCVs have higher accident rates than the vehicles they replace. The Federal government should direct that an independent study be conducted before the final chapter on the LCV expansion issue is written.

In the final analysis, I believe that the Federal government should and will allow states to decide if they want LCVs to operate within their jurisdiction. LCVs provide low cost transportation and that is what shippers demand. But, ultimate approval will depend upon the Federal and State governments working with the trucking industry to resolve disputed LCV safety issues. In my view, there are enough "top quality" vehicle operators and sufficient technology is available to make LCVs safer than existing

combination vehicles. The Federal government must accept its leadership responsibility and resolve the LCV controversy - no one else can.

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