

U.S. Department of Transportation

news:



Office of Public and Consumer Affairs

Washington, D.C. 20590

FOR RELEASE FRIDAY
September 1, 1978

DOT R21-78 (Hal Paris)
Phone: (202) 426-9550

NEW MEMBERS NAMED TO HIGHWAY SAFETY ADVISORY COMMITTEE

Twelve new members have been appointed by President Carter to serve on the U.S. Department of Transportation's National Highway Safety Advisory Committee.

They will join with those already on the 35-member committee to advise and consult with Secretary of Transportation Brock Adams on federal highway safety programs administered by the Federal Highway Administration and the National Highway Traffic Safety Administration.

The new members, who will serve terms expiring March 15, 1981, include:

Thomas J. Corcoran, Jr., Vice President, Capitol Counselors, Inc. (financial consulting firm), Topeka, Kan.

R. Adams Cowley, M.D., Director, State of Maryland Institute of Emergency Medical Services, Baltimore, Md.

W. "Boone" Darden, Sr., Chief of Police, Riviera Beach, Fla.

Howard G. Gibson, Judge, Roseville Judicial District, Roseville, Calif.

Daniel P. Kavanaugh, President, Metropolitan Enterprises, Inc., Oklahoma City. Okla.

William D. Keith, Chairman, Western Association of Railroad Passengers, Carroll, Iowa.

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Archie G. Richardson, Jr., President and founder of the
Automobile Owners Action Council (AOAC), Washington, D.C.

James C. Schultz, General Counsel, Continental Trailways, Dallas,
Tex.

Sheila D. Sidles, Executive Secretary, Iowa Consumers League,
Corydon, Iowa.

Jack S. Trees, Vice President, Allstate Insurance Co.,
Northbrook, Ill.

Ralph Van Natta, Commissioner, Bureau of Motor Vehicles,
Indianapolis, Ind.

Howard J. Wigder, President, Todd Chevrolet, Perth Amboy, N.J.

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U. S. Department of Transportation

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Office of Public and Consumer Affairs

Washington, D.C. 20590



FOR RELEASE FRIDAY
September 8, 1978

DOT-12678
Contact: Howard Coan
Phone: (202) 426-4321

BAN ON TANKER OPERATIONS IN PUGET SOUND EXTENDED

Secretary of Transportation Brock Adams has announced the extension, until June 30, 1979, of temporary size limitations for oil tankers entering Puget Sound.

The ban originally was issued as an emergency measure on March 14, 1978. It had been scheduled to expire on Sept. 9.

In a notice in the Federal Register today, DOT said the extension will allow the Coast Guard, an element of DOT, sufficient time to complete by June 1979 a rulemaking procedure to control tanker operations in Puget Sound and surrounding waters.

The U.S. Supreme Court found on March 2 that a section of a Washington State tanker law banning tankers over 125,000 deadweight tons in Puget Sound was unconstitutional because of federal pre-emption over state law.

As a result, Secretary Adams issued the March 14th interim navigation rule prohibiting the entry of the large tankers into U.S. waters of Puget Sound east of Discovery Island Light and New Dungeness Light. The order permitted continuing control of vessel operations in Puget Sound and averted a reduction in environmental protection.

Currently, the Coast Guard is studying comments made at public hearings held in Seattle on April 20-21, and is conducting simulated and actual tests with tankers to find a suitable regulatory approach.

Additionally, the Coast Guard is preparing a draft environmental impact statement that will be submitted for public comment.

Both the proposed rule and the draft environmental impact statement are expected to be published in December 1978.

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U.S. Department of Transportation

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Office of Public and Consumer Affairs

Washington, D.C. 20590

FOR RELEASE TUESDAY
September 12, 1978

DOT SEES RAILROADS FAILING
WITHOUT NEW REVENUE POLICY

DOT--127-78
Contact: Bill Bishop
Phone: (202) 426-4321

Pointing to the railroad industry's less than one percent rate of return on investment, the Department of Transportation called on the Interstate Commerce Commission to institute a liberal pricing policy and ease the heavy hand of regulation in order to attract new capital to the industry.

"Unless the financial condition of the railroad industry is improved," Secretary of Transportation Brock Adams said, "the long-run consequences of inadequate revenues will be the financial failure of a large part of the railroad industry."

"The symptoms that preceed failure are already apparent on many railroads," Adams said, and he listed them as deterioration of plant and equipment and the unavailability of equipment when demanded.

These conditions eventually lead, Adams said, to substandard service, loss of both market share and revenue, deterioration of the financial structure of individual carriers, and the inability to invest in order to meet changing traffic patterns.

Pointing to another facet of the problem, Federal Railroad Administrator John M. Sullivan said, "The industry's current financial problems have been caused, at least in part, by years of overly stringent regulations.

"Regulation has resulted in insufficient market incentives to invest in and maintain needed plant and equipment, and has prevented the industry from adopting operating practices and service offerings which would allow carriers to compete effectively with other modes of transportation," Sullivan said.

In filing its comments with the ICC on the adequacy of railroad revenue, DOT contended that the Railroad Revitalization and Regulatory Reform Act of 1976 requires the ICC to allow the rail industry to increase its revenue potential through the innovative pricing of services.

"The Commission must be liberal in allowing carriers to raise rates on all traffic over which the Commission retains maximum rate regulation," DOT said.

However, DOT said, there should not be total reliance on pricing procedures to produce adequate revenues. "For a viable long-term solution to the industry's financial condition, the Commission must address issues of major regulatory reform and industrywide operating practices." It urged the ICC to use the 1978 revenue determination to address the interrelated issues of earnings, costs and services with the goal of improving the financial integrity of the railroad industry.

REVENUE--RATE OF RETURN

"Railroads must earn sufficient revenue to cover all their operating costs and earn a rate of return adequate to retain existing capital and attract new capital," DOT said.

To accomplish these objectives, the departments said, investors in railroads must earn a rate of return similar to that they could earn in other industries of comparable risk. Any lower rate, it said, will fail to attract new investors and will drive out existing investors.

DOT said it estimates the railroad industry's cost of capital to fall in a range between its own minimum estimated 13.18 percent, and the higher industry estimate of 16.2 percent.

Rather than pick a particular number as the correct cost of capital for the industry, DOT proposed that the railroads' estimate be treated as the high end of the reasonable range and DOT's as the low end of the range.

"Strong railroads should be allowed to earn return close to the maximum estimate, while the Commission should make every effort to allow weaker railroads to at least earn the minimum rate of return," DOT said.

MEASURE OF REVENUE NEEDS

DOT urged the ICC to use the previous year's performance as the measure of a railroad's need for revenue.

Such a standard is traditionally used in utility ratemaking the department pointed out. It proposed that the effects of unusually low traffic, labor strikes or other aberrations be adjusted out of the estimate. The regulator then estimates changes in costs for the next year and the needed increase in revenue to yield an adequate return on investment.

INDIVIDUAL RATE INCREASES

Until railroads begin to earn adequate rates of return, the ICC should liberally grant individual rate increases on traffic over which it has the authority to review proposed rates, DOT said.

But, the department noted, in the case of the weakest railroads individual rate increases might not result in adequate rates of return.

"These railroads," DOT said, "should be permitted to be restructured or dissolved as corporate entities, and to sell the profitable portions of their operations to other railroads."

ASSURANCE TO INVESTORS

"The Commission must reassure investors that it will provide an environment in which each year every railroad will have an opportunity to make tangible and significant improvements in its rate of return," DOT said.

Pointing out that for the weaker railroads it may take a relatively long time to reach adequate revenue levels, DOT warned against too heavy reliance on increased freight rates. Too large an increase at any one time, it said, could result in diversion of traffic to other modes of transportation and dislocation of shippers.

IMPROVED EFFICIENCY AND SERVICE

Pointing out that the ICC is charged with assuring that railroads improve their efficiency and service as their return on investment improves, DOT recommended that the ICC require each railroad to submit a statement which lists each initiative undertaken during the past year to improve the overall quality of rail service.

Pointing out that major improvements in efficiency can be expected only after several years of continually improving rates, DOT said that if after several years of improving rates of return a railroad fails to demonstrate improvement in service, further revenue increases should be deferred pending evidence that service is improving.

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U.S. Department of Transportation news:



Office of Public and Consumer Affairs

Washington, D.C. 20590

FOR RELEASE MONDAY
September 18, 1978

DOT-R-2378
Contact: Jerry J. Clingerman
Phone: (202) 426-4321

KELM WILL BE DOT REPRESENTATIVE
IN SIX-STATE FEDERAL REGION

J. Douglas Kelm has been appointed the U.S. Department of Transportation's representative for the states of Illinois, Indiana, Minnesota, Michigan, Ohio and Wisconsin, Secretary of Transportation Brock Adams announced today.

Kelm, whose headquarters will be in Chicago, Ill., will serve as the Secretary's personal representative in the federal government's Region V, which includes the six states.

Kelm, 55, comes to the department after serving since July 1971 as chairman of the Twin Cities Metropolitan Transit Commission. In this capacity, Kelm served as chief executive officer of the commission with duties encompassing planning, construction and operation of the regional transit system.

Prior to joining the transit commission as chairman, Kelm worked from January 1954 to July 1971 for the Mutual Service Insurance Co. of St. Paul, where he attained the position of director of systems and data processing.

Born in Chanhassen, Minn., Kelm was graduated with a bachelor of arts degree from St. John's University of Collegeville, Minn., in 1947. He is a member of the American Public Transit Association and has served a term as vice president of the association. Kelm and his wife, Dottie, have four sons and a daughter.

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U. S. Department of Transportation

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Office of Public and Consumer Affairs

Washington, D.C. 20590

FOR RELEASE 9:00 A.M.
Monday, September 18, 1978

DOT OFFICIAL SAYS WOMEN'S
TRANSIT NEEDS NOT FULLY MET

DOT-12878

Contact: Howard Coan
Phone: (202) 426-4321

U.S. transportation systems often inadequately serve the travel needs of women, Deputy Secretary of Transportation Alan Butchman said today.

Many public transit systems are not meeting the demands of low-income women and working mothers who need transportation to jobs, child-care centers and shopping areas, he said.

Butchman made his remarks in a keynote speech prepared for the opening of a three-day conference in Washington, D.C., sponsored by DOT to discuss whether transportation systems and planning meet the needs of women travelers. It is the first effort by a federal agency to identify and evaluate the implications of women's travel behavior.

Even though more women are taking on the dual roles of homemaker and wage earner, Butchman said transportation planners frequently have to base their decisions on incomplete data concerning women's travel needs.

"We hope that this conference will awaken us to the differences between men's and women's needs for transportation," Butchman said. "We hope, also, to stimulate further inquiry into these needs, and to confirm the government's support for more equitable transportation services for all segments of the population."

Butchman said DOT has only limited information about the transportation needs of millions of low-paid women, such as domestics, cafeteria and hospital workers and clerks, but a reasonably accurate guess is that they depend on public transit and much of their commuting is not done during the normal rush hours or from suburb to city.

The Deputy Secretary said there is no way of knowing whether current transit systems would be significantly modified if women's needs were taken into greater account. Despite all the studies, analyses and reports that have been done on transportation, he said, "we don't have all the answers because we still haven't addressed all the questions."

The conference was organized by DOT's Office of University Research in cooperation with the National Research Council. Sessions will be held through Wednesday at the National Academy of Sciences Building, 2101 Constitution Ave., N.W., Washington, D.C.

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Office of Public and Consumer Affairs
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FOR IMMEDIATE RELEASE
Tuesday, September 19, 1978

DOT 131-78
Contact: Howard Coan
Phone: (202) 426-4321

DOT ASKS ICC TO ALLOW
PRIVATE TRUCK FLEETS
IN COMMERCIAL SERVICE

The Department of Transportation is asking the Interstate Commerce Commission to authorize private firms to use their trucks in commercial service.

A recent ICC decision gave this right to a private company. In comments filed with the ICC late Monday, DOT said a general policy granting similar authorization to private companies would result in fewer empty trucks on return trips, reduce the need for carriers to buy more equipment, save fuel, and lessen noise, air pollution and traffic.

Easier entry into the trucking industry also will promote competition and result in improved, lower-cost service for shippers, thus helping in the fight against inflation, DOT said.

"The commission's mandate is to assure the adequacy of transportation services available to shippers and to the general public, not to protect the existing authorized motor and rail carriers," DOT General Counsel Linda Heller Kamm said.

DOT said the proposed policy will have almost no competitive impact on the railroads or on long-distance, less-than-full-load truckers carrying general freight.

On March 24, in a case involving the Toto Purchasing and Supply Co., the ICC changed its 40-year-old policy of not granting operating certificates to firms that mainly intend to haul their own goods. Under the decision, the operating authority could be granted if the standard requirements for carrier application are met and the for-hire and private trucking operations are conducted independently.

Kamm urged the commission "to declare that it will apply the principles of the Toto decision to future applications for for-hire motor carrier authority."

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M-493

U.S. Department of Transportation

news:



Office of Public and Consumer Affairs
Washington, D.C. 20590

FOR RELEASE WEDNESDAY
September 20, 1978

DOT-129-78
Contact: Bill Bishop
Phone: (202) 426-4321

SECRETARY ADAMS APPROVES PROJECTS TO IMPROVE SEATTLE-AREA HIGHWAYS

Secretary of Transportation Brock Adams today approved projects totaling \$27 million to construct additional lanes on three segments of Interstate highways in the Seattle area for the use of vanpools, carpools and transit buses during peak commuting hours.

"The construction and use of so called 'high occupancy vehicle lanes' is a transportation improvement we are encouraging throughout the nation," Secretary Adams said.

"These lanes, reserved in peak hours for carpools and transit buses, can be constructed at a relatively low cost to significantly increase the people-carrying capacity of existing highways," he pointed out.

"Possibly of greater importance," Adams said, "is that the improved commuting times these lanes afford serve to induce the individual driver to join a carpool or use public transportation, thus supporting the national effort to conserve the nation's diminishing supply of petroleum."

A total of 22 miles of highway improvements, consisting of an additional lane in each direction, will be made on these segments:

Interstate 5, between State Road 405 and Jefferson St., for a length of 10.98 miles, at a cost of \$7.78 million.

Interstate 405, between Interstate 5 and State Road 900, a distance of 5.4 miles, at a cost of \$12.72 million.

Interstate 405, between State Road 900 and Interstate 90, for a distance of 5.63 miles, at a cost of \$4.74 million.

The money will be allocated to the state of Washington by DOT's Federal Highway Administration.

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U. S. Department of Transportation

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Washington, D.C. 20590



FOR RELEASE WEDNESDAY
September 20, 1978

DOT 130-78

Contact: Jerry Clingerman
Phone: (202) 426-4321

SECRETARY ADAMS APPROVES I-90 PROPOSAL IN SEATTLE

Secretary of Transportation Brock Adams today approved construction of the Interstate Highway 90 project in the state of Washington between Seattle and Bellevue.

The proposal Adams approved calls for construction of a 6.9-mile freeway from Interstate 5 in Seattle to the already completed I-90 near Interstate 405 in Bellevue. The project includes a bridge over Lake Washington, which separates the two cities.

The proposed highway will upgrade and expand the existing four-lane joint U.S. highway 10 and Washington State Highway 90. Estimated in 1976 dollars, approximate cost of the project is \$549 million. The federal share would be 90 percent or about \$494 million. The project calls for three eastbound and three westbound lanes for general traffic and two lanes in the center of the roadway for transit vehicles, carpools and provisionally general traffic from Mercer Island which lies between Seattle and Bellevue.

Included in the approved proposal are covered roadway sections, some of which reunite neighborhoods currently separated by existing highways, landscaping and bicycle and pedestrian trails.

Secretary Adams said that he had given great weight to the fact that the proposal provides special facilities for transit and carpools, as well as substantially increased highway capacity. "We must encourage intermodal transportation decisions that improve the urban social and physical environment whenever possible, and thereby contribute to the health of the urban community," Adams said.

Secretary Adams said, "In making this decision, I have placed great emphasis on the effects of highway projects on urban development and energy conservation goals in the President's Urban Policy." He added that such considerations must include not only transportation needs, but economic, social and environmental costs and benefits.

The Secretary pointed to the long history of planning in the corridor, and said that the alternative chosen, if carefully designed and constructed, would be consistent with environmental objectives, contribute to a more balanced and effective transportation system in the area, and remove a serious safety hazard.

Adams said that he carefully considered the report by Seattle Metro on transit access alternatives and the report to Mayor Charles Royer on Interstate 90, as well as written views from interested citizens and organizations expressing both support for and opposition to the proposal.

Secretary Adams placed certain conditions on his approval of the project.

- The acute safety problem presented by the "bulge" section of the existing Lake Washington Bridge must be corrected as soon as possible. Therefore, removal of the "bulge" section and associated work including construction of the East Channel Bridge shall be the first order of work.

- Federal Highway Administration approval of the plans, specifications and estimates for portions of the I-90 project located east of the East Channel Bridge and its temporary connection to the existing highway, and west of 23rd Avenue, will be withheld until development and necessary approvals of design and financing agreements for priority transit access into downtown Seattle and downtown Bellevue.

- Public transportation shall permanently have first priority in the use of the center lanes. The Washington State DOT will assure that general Mercer Island traffic use of the center lanes is controlled to the extent necessary to maintain bus and carpool speeds of 45 mph or greater.

The approved highway will serve a projected daily demand in 1990 of 138,000 person trips, including 18,300 transit person trips and would reduce congestion in the I-90 corridor. The project is expected to displace 800 persons and 69 businesses, in addition to the 438 persons already displaced.

The proposal also calls for creation of a 180-acre greenbelt and will protect the two historic houses affected by the project. Also, the bridge and tunnel portals which are part of the existing roadway has been declared eligible for placement on the national historic register. It will be upgraded, improved and preserved.

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SEPT. 20, 1978

PRESS STATEMENT

In early 1976, a memorandum was prepared by Dr. Charles Kahane, a National Highway Traffic Safety Administration staff mathematician, for presentation to Dr. James Gregory, who was then Administrator of the NHTSA, and for other senior members of the NHTSA staff. The conclusions of the paper were judged to be essentially meaningless because of the gross inadequacy of the underlying data. The Department of Transportation's estimates of air bag effectiveness published subsequently by former Secretary of Transportation William T. Coleman (and used as well in more recent rule making actions) were derived from independent and more reliable data sources.

The 1976 Staff memorandum was recently requested under the Freedom of Information Act by the Pacific Legal Foundation, which is currently involved in litigation in a Federal court against the NHTSA on issues relating to passive restraints. The request was at first denied by the agency, on the grounds that it is an internal memorandum, and thus protected from disclosure under the Act, and because it was not relied upon in Agency decisionmaking.

Upon reconsideration of the denial, however, the agency decided to make the paper available on the grounds that to continue to withhold it would lend the document an aura of creditability that it does not deserve.

Field experience with air bag systems since the date of the 1976 Staff analysis has thoroughly borne out the Department's earlier judgment regarding the potential effectiveness of passive restraints. Current analyses of airbag field data substantially confirm the Department's effectiveness estimates. A copy of an updated analysis is available from the Department.

Sept 20, 1978

AN ANALYSIS OF FATALITIES IN CARS EQUIPPED WITH AIR BAGS

Introduction

There have been a total of slightly more than 12,000 automobiles equipped with air bags that have been in operation on public roads in the United States since 1971. Of these, 10,281 were built on regular assembly lines with air bags as a regular production option, and were sold primarily to the public. The remaining 1906 were special manufacturers' test vehicles that were used only in Government and business fleets. There have been a number of studies of the performance of air bags based on the experience of these vehicles on the road.

Air bag cars have travelled more than 600 million miles. There have been more than 200 known air bag deployments in crashes. Five people have died in crashes in cars equipped with air bags. In summary, these fatalities were:

- May 16, 1973, Shererville, Indiana. A 1973 Chevrolet crashed into a delivery truck. Prior to the crash, an unrestrained 7-week-old infant was thrown to the floor when the driver of the vehicle braked to try to avoid the crash. The infant was probably underneath and in front of the passenger air bag at the time of the crash, and was killed by the crash forces.
- July 11, 1974, George West, Texas. A 1972 Mercury crossed over the centerline of a rural highway where it was struck and run over by the rear wheels of a tractor trailer. The left side of the occupant compartment was crushed, and the driver was killed. It is highly unlikely that any restraint system could have prevented this fatality.
- February 29, 1976, Memphis, Tennessee. A 1974 Oldsmobile 88 crashed into a pole. The driver of the vehicle had a blood alcohol level of 0.19 at the time of the accident. The speed of the vehicle at the time of the crash was estimated to be approximately 30 miles-per-hour. No autopsy was allowed to be performed on the driver so that the cause of death is unknown. The man was thought to have been draped over the steering wheel at the time of the crash.
- March 11, 1976, Lake Villa, Illinois. A 1974 Oldsmobile 88 crashed head-on into a Chrysler at a closing speed estimated to have been in excess of 100 miles-per-hour. The drivers of both vehicles were killed.
- July 1, 1978, Gadsden, Alabama. A 1974 Oldsmobile Ninety-Eight ran off the road and into a grove of trees. The left side of the vehicle was very badly damaged by one of the trees and the driver's door was torn open. The driver was partially ejected from the vehicle and suffered fatal injuries as a result. The passenger in the right front seat suffered only minor injuries.

In all of the fatal crashes, the air bags deployed properly, and the fatalities that occurred were all caused by factors that the air bag was not designed to counter, with the possible exception of the Memphis crash.

All authors who have attempted to analyze the data from air bag vehicles on public roads have admitted to the lack of sufficient data to provide a reliable estimate of air bag effectiveness in preventing fatalities. One analysis of air bag field data, by Dr. Charles Kahane, an NHTSA staff mathematician, was reported in a memorandum entitled, "Statistical Analysis of Air Bag Deaths," dated April 9, 1976. Like all other analyses founded upon the grossly inadequate field data, this analysis was considered to be of no value by the NHTSA officials responsible for estimating the benefits of air bags and other passive restraint systems. This judgment has been borne out by the fact that air bag field experience accumulated after the date of the 1976 analysis contradicts the study's findings.

In the present paper, the data employed in the 1976 analysis are updated to reflect experience as of September 1, 1978. In addition, more realistic and accurate methodology is employed in deriving a comparison fatality rate for vehicles not equipped with air bags, but in other respects identical to the production air bag vehicle fleet.

The results of the analysis shows that if one properly computes the effectiveness of air bag systems based on the experience of the General Motors cars equipped with the Air Cushion Restraint System (ACRS), the value obtained is completely consistent with the Department of Transportation's earlier estimates of air bag effectiveness: 45% with lap belt usage of around 15% in the air bag cars.*

The results are not substantially changed if the cars equipped with air bags prior to the introduction of the ACRS as a regular production option on some 1974-1976 GM full-size and luxury cars are included in the analysis.

* Effectiveness is defined as the reduction in fatalities compared with the number of fatalities that would have occurred if all vehicle occupants were unrestrained. It is expressed as a percentage reduction in fatalities.

Analysis

A most probable value for the effectiveness of air bags, based on data from field experience, is computed in this section. In addition, the likelihood of various numbers of front seat occupant fatalities occurring in the fleet of air bag cars is determined using the assumption that the distribution of fatalities in the air bag cars is a Poisson distribution.

The analysis is carried out by constructing a control sample of cars that are similar to the air bag equipped cars except for their restraint systems. Since the bulk of the air bag equipped cars were 1974-1976 full size and luxury Buicks, Oldsmobiles, and Cadillacs, the control sample was made up of the total number of the same make, model, and model year cars equipped with conventional lap and shoulder belts for occupant restraints, that were registered in the U.S. on July 1 of 1975, 1976, and 1977.

The performance of the 1974-1976 GM-ACRS equipped cars is analyzed first on the assumption that this fleet is well matched with the control sample in all respects including their age, size, type and age of driver, geographical distribution of the vehicles, annual mileage, exposure, and so on.

The remaining cars equipped with air bags are not typical of cars in use generally in the U.S. They consisted of 831 1972 Mercury Montereys, all of which had a passenger air bag system that used stored gas to inflate the air bag (considered to be obsolete), but only a few of which had driver air bags. Next, there were 1000 Chevrolet Impalas that had a prototype driver and passenger air bag system that is similar, but not identical, to the ACRS system used in later production cars.

In 1975, Volvo introduced 75 new cars into the U.S. fleet equipped with air bag systems that are also now considered obsolete. None of these cars were sold to the public. They were used primarily in business fleets. A number of the Chevrolets were used as police cruisers, and a number of both the Chevrolets and Mercurys were used in non-police government service. There are no obviously matched fleets of cars that could be used as a control sample for these three fleets of air bag cars for which fatality data is available.

Nevertheless, the analysis is repeated using the assumption that the distribution of fatalities in these fleets is the same as the distribution of fatalities in the ACRS equipped cars and their control sample. While this assumption is arbitrary, it is probably not an unreasonable one.

Data on fatalities of air bag equipped cars is well known because of the very sophisticated and redundant accident reporting system that has been in place since these cars went into production. Data on front seat occupant fatalities in the non-air bag cars was obtained from a search of the Fatal Accident Reporting System file for 1975, 1976, and 1977. It is assumed that the rates for 1974 and for 1978 can be extrapolated from the FARS data. Corrections were made for cases where the model or year of car was unknown, assuming that the unknown vehicles are uniformly distributed.

The calculated fatality rate is shown in Figure 1 for both the ACRS equipped cars and the control sample of similar cars equipped with lap and shoulder belts. To obtain an estimate of the fatality rate for a population of unrestrained drivers and passengers, the usage rates, and projected effectiveness of safety belts were used in connection with the fatality rate in the control sample. The relationship is:

$$F_o = F \cdot \frac{1}{1 - E_b \cdot U}$$

where:

F_o = the fatality rate for a population of unrestrained occupants

F = the fatality rate from accident data

E_b = the effectiveness of safety belts in preventing fatalities when they are used (expressed as a fraction)

and:

U = the usage rate of safety belts observed for vehicles in the control sample (expressed as a fraction)

Figure 2 shows the observed usage rates for cars in the control sample.

The fatality rate estimated for unrestrained occupants in the control sample of 1974-1976 GM cars in the control sample is shown in Figure 3. It should be noted that this fatality rate is approximately half the fatality rate for automobiles in the whole U.S. fleet as would be expected for such large and heavy automobiles that have improved safety features and technology introduced in recent years.

The effectiveness of the air bag system is then calculated to be:

$$E_{ab} = \frac{F_o - F_{ab}}{F_o} \times 100\%$$

where:

E_{ab} = the effectiveness of air bags in preventing fatalities

F_o = the fatality rate for a population of unrestrained occupants

F_{ab} = the fatality rate for cars equipped with air bags

Figure 1. Fatality Rates from Field Data on Front Seat Occupant Fatalities in 1974-1976 Full Size and Luxury Buicks, Oldsmobiles, and Cadillacs Sold to the General Public.

	Air Bag Equipped Automobiles	Lap/Shoulder Belt Equipped Automobiles
Number of Car Years of Exposure on Public Roads	39,100	4,380,000*
Estimated Annual Mileage	13,400	13,400
Total Estimated Exposure in Miles	524 million	58,600 million
Fatalities	3	553**
Fatality Rate per 100 Million Miles	0.57	0.94

* Estimated from registration data as compiled by R. L. Polk and Co.

** Obtained from the Fatal Accident Reporting System of the National Center for Statistics and Analysis of the National Highway Traffic Safety Administration for 1975, 1976, and 1977.

Figure 2. Observed Belt Usage in 1974-1976 Full Size and Luxury Oldsmobiles, Buicks, and Cadillacs in late 1976 and early 1977.*

Makes and Models Included in the Observations:

Cadillac (all except Seville)

Buick Electra
LaSabre
Riviera

Oldsmobile Delta 88/Dynamic
Ninety-Eight
Toronado

Model Year	1974	1975	1976
Usage Rate Observed	17.3%	15.4%	13.4%

Average Observed Usage Rate: 15.4%

* From Stowell, Carol, and Joseph Bryant, Safety Belt Usage: Survey of the Traffic Population, Kirschner Associates, Inc., U.S. Department of Transportation, Washington, D.C., January 1978.

Figure 3. Estimated Fatality Rate for Unrestrained Front Seat Occupants of 1974-1976 Full Size and Luxury Buicks, Oldsmobiles, and Cadillacs.

Effectiveness of Lap/Shoulder Belts:	60%
Effectiveness of Lap Belts Alone:	40%
Net Effectiveness of Belts As Worn: (assuming that 5% of the people who wear belts in 1974-1976 model cars wear only the lap belt)	59%
Usage Rate for Safety Belts:	15.4%
Net Effectiveness of Belts at Observed Usage Rates:	9.1%
Actual Fatality Rate per 100 Million Vehicle Miles of Travel:	0.94
Estimated Fatality Rate per 100 Million Vehicle Miles of Travel for Unrestrained Occupants:	1.03

The results of this calculation are shown in Figure 4. It should be noted that a confidence interval for this value would be very wide for any reasonable confidence level because of the small size of the sample of vehicles and because of uncertainties in the estimates of the input data. Nevertheless, the value found is very close to the value for the effectiveness of air bags that has been used by the Department of Transportation (see Table 1).

Figure 5 is a calculation of the effectiveness of air bags using the entire fleet of cars equipped with air bags, but the same control sample. The earlier fleet vehicles used older technology air bag systems that may have had a lower effectiveness than the ACRS system. Nevertheless, it is doubtful that an ACRS system could have prevented the fatalities that occurred in the crashes of the other air bag cars.

To illustrate the large uncertainties involved in calculating the effectiveness of air bag systems using such a limited data set, we can approach the problem from another perspective. Assuming that the data from the set of ACRS equipped cars, and the control sample satisfy the conditions for a Poisson Distribution to apply (See Appendix A), we can calculate the probability distribution for fatalities in air bag cars. This is done in Figure 6 using the same assumptions that were used in the earlier calculation, and assuming that the effectiveness of air bags alone is 40%, the effectiveness of air bags when used with lap belts is 66%, and the usage of lap belts in air bag equipped cars is approximately the same as the usage of conventional safety belts in cars without air bags.

The analysis is carried out for both the ACRS fleet alone, and for the fleet of all air bag equipped cars. The probabilities of anywhere from one to five fatalities in the ACRS cars and all air bag automobiles are very roughly equal. Again, the indeterminacy in the results comes from the small number of vehicles involved and the relative rarity of a fatal crash in such a small sample.

The results of this analysis differ quite substantially from the results of the earlier analysis carried out by an NHTSA staff member, and tend to support the estimates made by the Department for air bag effectiveness.

Figure 4. Estimated Effectiveness of General Motors Air Cushion Restraint System in Preventing Fatalities Based on Field Data for 1974-1976 Full Size and Luxury Buicks, Oldsmobiles, and Cadillacs Sold to the General Public.

Fatality Rate in ACRS Equipped Automobiles per 100 Million Vehicle Miles:	0.57
Estimated Fatality Rate for Unrestrained Occupants in Similar Automobiles per 100 Million Vehicle Miles:	1.03
Effectiveness of ACRS System in Preventing Fatalities:	45%

Table 1. Occupant Crash Protection System Effectiveness Estimates.*

AIS Injury Level	Lap Belt	Lap and Shoulder Belt	Air Cushion	Air Cushion and Lap Belt	Passive Belt and Knee Bolster	Knee Bolster
1	.15	.30	0.0	.15	.20	.06
2	.22	.57	.22	.33	.40	.10
3	.30	.59	.30	.45	.45	.15
4,5&6	.40	.60	.40	.66	.50	.15

Multiplying these effectiveness numbers by the number of injury or fatality occurrences gives the total benefits available when the restraint system is used 100 percent of the time in lives saved or injuries prevented or mitigated.

* From "The Secretary's Decision Concerning Motor Vehicle Occupant Crash Protection, U.S. Department of Transportation, Washington, D.C., December 6, 1976.

Figure 5. Estimate of Air Bag Effectiveness for All Cars that Have Been Operated on Public Roads that are Equipped with Air Bag systems.

Miles Traveled by Vehicles in Various Air Bag Equipped Fleets:

1972 Mercury Montereys	38 million miles
1973 Chevrolet Impalas	69 million miles
1975 Volvos	2 million miles
1974-1976 Buicks, Oldsmobiles, and Cadillacs	524 million miles
Total	633 million miles

Fatalities in Air Bag Equipped Cars	5
Fatality Rate for Air Bag Equipped Cars	0.79 per 100 million miles
Fatality Rate for Unrestrained Occupants (Estimated)	1.03 per 100 million miles
Estimated Effectiveness of Air Bag Systems in Preventing Fatalities	23%

Figure 6. Probability Distribution of Fatalities in Air Bag Equipped Automobiles Based on Estimated Fatalities Among Unrestrained Occupants of 1974-1976 Full Size and Luxury Buicks, Oldsmobiles, and Cadillacs.

Fatality Rate Among Unrestrained Occupants:	1.03 per 100 Million Miles
Effectiveness of Air Bag Alone in Preventing Fatalities in Automobile Crashes:	40%
Effectiveness of Air Bag with Lap Belt in Preventing Fatalities in Automobile Crashes:	66%
Estimated Lap Belt Usage in Cars Equipped with Air Bags:	15.4%
Net Effectiveness of Air Bags in Preventing Fatalities in Automobile Crashes at the Estimated Rate of Lap Belt Usage:	45%
Estimated Fatality Rate in Air Bag Equipped Automobiles	0.57 per 100 Million Miles

Number of Fatalities	Likelihood of the Number of Fatalities	
	ACRS Equipped Automobiles*	All Air Bag Automobiles**
0	4.8%	2.5%
1	14.7%	9.5%
2	22.0%	17.2%
3	22.4%	20.9%
4	17.2%	19.2%
5	10.1%	13.7%
more than 5	8.8%	17.0%

* 1974-1976 full size and luxury Buicks, Oldsmobiles, and Cadillacs that have travelled 524 million miles on public roads

** All air bag cars that have travelled 633 million miles on public roads

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FOR IMMEDIATE RELEASE
Thursday, September 21, 1978

DOT 132-78

Contact: Howard Coan
Phone: (202) 426-4321

DOT BACKS REQUEST TO REDUCE ICC RULES ON SMALL SHIPMENTS

The Interstate Commerce Commission should reduce entry restrictions and price regulations on small package shipping services, including those run by intercity bus companies, a Department of Transportation official said today.

DOT will support a request made to the ICC by Trailways, Inc. that will let consumers and businesses ship packages under 500 pounds at lower cost and more conveniently, DOT General Counsel Linda Heller Kamm said in a speech to the National Small Shipments Traffic Conference in Arlington, Va.

Kamm said a new ICC rule would permit intercity bus companies to expand their express package service. Bus companies and small-shipment trucking operations could attract additional small shippers by providing such services as pickup, delivery and freight forwarding, and could carry more commodities because of increased size and weight limits.

"Small communities, in particular, would benefit from the increased availability of high-quality, broad area service that intercity buses can provide," Kamm said. "Easing pricing restrictions is likely to increase competition in this area, ultimately resulting in lower costs to the shippers."

Kamm said the outdated economic regulation of the trucking industry protects the existing regulated carriers and not the public. Specific reforms should be considered by the ICC, Kamm added, that would ease entry into the interstate trucking industry, resulting in lower rates.

"DOT wants less regulation and restriction and more reliance on the market place," Kamm said.

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Washington, D.C. 20590

FOR RELEASE MONDAY
September 25, 1978

MASSACHUSETTS MAYOR GETS
DOT NORTHEASTERN POST

DOT-R-2578
Contact: Jerry Clingerman
Phone: (202) 426-4321

George R. McCarthy, mayor of Everett Mass., since 1968, has been appointed the U.S. Department of Transportation's representative for six northeastern states, Secretary of Transportation Brock Adams announced today.

McCarthy, 51, will have his headquarters in Boston and will be the Secretary's personal representative for Region 1, which includes the states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

McCarthy has been mayor of Everett for six consecutive two-year terms. He is also the owner of a small business in Everett.

He has been chairman of the budget committee of the advisory board of the Massachusetts Bay Transportation Authority since 1970. The budget committee functions as the executive committee for the advisory board which has budgetary control over the 79 cities and towns served by the MBTA.

McCarthy is past president of the Massachusetts Mayors' Association. He first served in public office as a member of the Everett School Committee from 1954-1958 and served from 1956 to 1966 on Everett's Board of Aldermen.

The mayor is a member of several civic organizations including the Everett Chamber of Commerce, Rotary International and the board of the Whidden Memorial Hospital.

A veteran of World War II, McCarthy is married to the former Charlotte Borggren. They have two boys and three girls.

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FOR IMMEDIATE RELEASE
Tuesday, Sept. 26, 1978

DOT 133-78
Contact: Howard Coan
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DOT SUPPORTS PROPOSED CHANGE IN GOVERNMENT FREIGHT RULE

The Department of Transportation is supporting a proposed Interstate Commerce Commission rule for simplified procedures to allow more companies to transport government freight.

The proposal would benefit taxpayers directly through lower costs to government agencies and indirectly by aiding in the inflation fight, DOT said in comments filed with the ICC late Monday, Sept. 25.

"The simplified entry procedures proposed by the commission in this proceeding are long overdue," DOT General Counsel Linda Heller Kamm said. "By lowering the barriers against the entry of new carriers into the government traffic sector of the motor carrier industry, the commission will further important government-wide policy goals with respect to expansion of economic opportunity for disadvantaged persons."

DOT also said the ICC should extend the proposed rule to include state and local governments, and distinctions should be avoided among types of government agencies and categories of government traffic.

The Minority Trucking-Transportation Development Corp. asked the ICC in 1977 to ease certain motor carrier licensing requirements for economically disadvantaged persons to allow them to ship U.S. government freight. In July 1978, the ICC issued an interim decision and asked for comments on its proposal to include all persons desiring to transport government freight, rather than limit the new procedures to disadvantaged persons.

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Washington, D.C. 20590



FOR RELEASE 10 A.M. WEDNESDAY
September 27, 1978

DOT R-26-78
Contact: Howard Coan
Phone: (202) 426-4321

ADAMS ASKS TRANSIT INDUSTRY
TO URGE LESS U.S. SPENDING

TORONTO -- Secretary of Transportation Brock Adams today asked transit industry leaders to join him in urging Congress to keep federal spending at a level acceptable to President Carter.

In a speech prepared for the American Public Transit Association convention in Toronto, Adams said transit industry lobbying of Congress for less spending would benefit public transportation and the entire economy.

Adams appealed to transit leaders "to exercise vision and wisdom to support a federal spending level that is fair, that is progressive, but that fits into our national goal of a balanced budget."

The Secretary assured the transit leaders he would use a major share of the department's current and future funds to improve transportation in the nation's cities.

More DOT funding for mass transit has helped to increase transit ridership for 12 consecutive months which, except for the 1973 gasoline shortage, is the longest period of steady growth since World War II, Adams said.

"Together, we can work to liberate the modern American city from twice-daily strangulation by the automobile commuter," Adams said. "This is going to require time, money, effort, some very hard-nosed politics and all the wisdom we can collectively summon."

- more -

Adams also discussed the law that requires the nation's transportation system to be made fully accessible to the elderly and the handicapped.

Noting that APTA and others have expressed concern over the cost of putting these regulations into effect on rail, bus and transit systems, Adams said the quarrel on this score "is really with Congress."

"The Congressional mandate gives us little choice in the matter," he said of DOT. "We are trying to comply with those orders."

Adams also said his "Transbus" decision requiring all transit buses purchased with federal funds after September 30, 1979, to have low floors, wide doors and easy access, also will cost more.

But, he declared "the transbus program is the right thing to do for all our citizens, and one day we'll all be glad we had a part in it."

On another topic, Adams said DOT is developing a plan to combine the Federal Highway Administration and Urban Mass Transportation Administration into a single surface transportation agency. Highways and mass transit are equally important parts of the transportation system that must be coordinated to facilitate movement in and around U.S. cities, he pointed out. Neither program will receive less attention in a combined agency, Adams said.

"A unified fully-staffed Surface Transportation Administration could eliminate duplication, speed up program delivery and respond more rapidly to state and local needs. It could provide one-stop service for transportation officials throughout the country," Adams said.

Adams said he is determined to have DOT improve current interchange systems between rail, bus and subway lines and simplify ticketing to permit commuters to use combined systems more easily.

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FOR RELEASE AT NOON

Thursday, September 28, 1978

DOT 134-78

Contact: William Bishop

Phone: (202) 426-4321

DOT, DOE JOINTLY FUND
RAIL CORRIDOR STUDY

The Departments of Energy and Transportation will fund a study of the impact of increased coal shipments in the Minnesota-North Dakota rail corridor.

The study will concentrate on low-cost solutions to difficulties that communities on this major railroad line are experiencing because of increased coal movement. These problems include conflicts between rail and automotive traffic at grade crossings and environmental, social, economic and community development concerns.

The 12-month study, scheduled to begin in October, could serve as the prototype for future studies on railroad impacts on communities throughout the country.

The study will examine the Burlington Northern Railroad mainline from the west border of North Dakota to the Minnesota Twin Cities, and to the Minnesota-Wisconsin border near Superior, Wisc. The rail line passes through Bismarck-Mandan, Fargo-Moorhead in North Dakota and St. Cloud and Staples, Minn., and is the route of unit coal trains to several points in the Midwest.

Each department will provide \$75,000 to the Minnesota Department of Transportation for the study. An additional \$100,000 is scheduled to be provided jointly by the states of Minnesota and North Dakota, the Rail Traffic Task Force and the Burlington Northern Railroad. Minnesota's DOT will award the study contract to one or more consultants on a competitive basis.

A management board consisting of representatives of the Minnesota DOT, the North Dakota Highway Department, the Rail Traffic Task Force (representing local communities), the Burlington Northern Railroad, the Department of Energy and the Department of Transportation will oversee the project.

Community growth along the rail lines and increasing train and auto traffic are main contributors to the problems to be studied. The Burlington Northern mainline is experiencing increased coal traffic from western mines to the Midwest in addition to carrying substantial general freight traffic.

Low cost remedial solutions will be fully investigated. Among the reasons for examining low cost solutions are: funds are not available for large capital projects; low cost solutions may be quickly implemented; and will serve as a basis of comparing and evaluating more costly solutions.

A final report on the study is scheduled for publication in October 1979.

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Office of Public and Consumer Affairs
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FOR IMMEDIATE RELEASE
Friday, September 29, 1978

DOT 135-78
Contact: Howard Coan
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DOT URGES ICC TO REJECT
LOW RAIL RATES FOR COAL

The Department of Transportation is urging the Interstate Commerce Commission to reject proposals which would hold railroad coal shipping rates to unreasonably low levels.

In comments filed with the ICC late Thursday, Sept. 28, DOT said the low shipping rates would make it difficult, if not impossible, for the railroads to attain the financial and operational viability which Congress has sought through legislation.

DOT General Counsel Linda Heller Kamm said the national transportation policy, set by Congress, "permits and, in fact, requires the commission to approve coal rates which cover all costs of operation and which allow railroads to earn a rate of return sufficient to attract and retain needed equity capital."

DOT said the commission, in general, should approve proposed coal rates unless the price of coal on delivery to electric utilities would be higher than the delivered price of alternative fuels. Under this proposed ceiling for rail rates, utilities would still have an economic incentive to burn coal rather than oil or natural gas.

DOT rejected contentions made to the ICC by a number of shippers and producers that railroads have a monopoly power in setting rail rates for coal. Actually, utilities have the ability to benefit from effective competition in making fuel source and transportation choices, DOT said. As a result, utilities can bargain with several railroads and fuel producers for the lowest possible price.

- more -

Last May, the ICC began an investigation into appropriate railroad rate guidelines for large-volume coal movements originating in the Rocky Mountain-Upper Missouri River region. In response to an ICC request for comments, DOT's first comments on Aug. 4 said that a zone of reasonable rail rates must be established in the context of an industry-wide rate structure which would permit each railroad to earn sufficient revenues.

DOT proposed specific guidelines for developing a set of reasonable rates that would help railroads attain such revenue levels and promote national energy policy, while at the same time allowing the ICC to consider possible hardship to shippers and the general public.

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