PRELIMINARY
MINUTES

HOUSE COMMITTEE ON TRANSPORTATION

November 29-30, 1993
Room 526-S -- Statehouse

Members Present

Representative Rex Crowell, Chairperson
Representative Kenneth King, Vice-Chairperson
Representative Vernon Correll
Representative Delbert Crabb
Representative Carol Dawson
Representative Gary Haulmark
Representative Walker Hendrix
Representative Jim Long
Representative Laura McClure
Representative Dennis McKinney
Representative Janice Pauls
Representative Don Rezac
Representative Eugene Shore
Representative Marvin Smith
Representative Jonathan Wells

Staff Present

Hank Avila, Kansas Legislative Research Department
Tom Severn, Kansas Legislative Research Department
Bruce Kinzie, Revisor of Statutes Office
Donna Luttjohann, Committee Secretary

Conferees

Matters Pertaining to Federal Mandates Concerning Suspension of Drivers' Licenses for Drug Offenses

Michael Johnston, Secretary, Kansas Department of Transportation
Norman McPherson, National Highway Traffic Safety Administration
John Smith, Kansas Department of Revenue
Melanie Pfeifer, Kansas Bureau of Investigation
Patrick Hurley, Economic Lifelines

Mary Turkington, Kansas Motor Carriers Association
Dan Ramlow, Kansas Contractors Association

Issues Pertaining to the Enactment of a Mandatory Motorcycle Helmet Law

Rosalie Thornburgh, Kansas Department of Transportation
Charles "Chip" Wheelen, Kansas Medical Society
Terry Maple, Kansas Highway Patrol
Kenneth McNeil, ABATE
Patty Mills

Collection of Sales Taxes on Highway Construction Projects

Mark Burghart, Kansas Department of Revenue
Robert Haley, Kansas Department of Transportation
Dan Ramlow, Kansas Contractors Association
Robert Corkins, Kansas Chamber of Commerce and Industry

Matters Pertaining to Highway Guardrails

Galen Bird, Grandview, Missouri
Linda Bird, Grandview, Missouri
Gary Graham, Lawrence, Kansas
Mike Lackey, Kansas Department of Transportation

Traffic Control Matters

Lt. Sam Grant, Kansas Highway Patrol
Jim Tobaben, State Traffic Engineer, Kansas Department of Transportation
Jim Bush, Director, Division of Engineering and Design, Kansas Department of Transportation

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November 29, 1993
Morning Session

Chairman Crowell opened the hearing on the collection of sales tax on original highway construction projects.

Mark Burghart provided the Committee with information on the implementation of the 2.5 percent sales tax on labor services for construction and the increase from 4.25 percent to 4.9 percent sales and use tax statewide effective June 1, 1992. Kansas contractors collect 2.5 percent state sales tax and any local tax, based on the place of business of the contractor if the contract is for less than $10,000. If the contract is greater than $10,000, the situs is where the services are performed. Problems were noted when an out-of-state contractor performs a job of less than $10,000; then there are no taxes collected on that project. Mark Ciardullo stated that the Department of Revenue is effective in identifying projects under $10,000. He stated if the law is enforced and the companies are complying, Kansas companies should not be hurt. Steve Stotts discussed reasons the state brought in only $4.4 million as opposed to $39 million as initially projected by the Department (Attachment 1).

Robert Haley discussed how this law related to the Kansas Department of Transportation (KDOT). He said that KDOT assumes that contractors incorporate the cost of the sales tax liability on materials in bids which have been submitted. Regarding the sales tax liability of services, a contractor is exempt from tax if he performs services himself, but must increase the bid to cover sales tax on subcontractor services. KDOT does not require contractors to specify an amount being paid to subcontractors. They only need to describe the type of work the subcontractor will perform on the job. Mr. Haley stated that KDOT can only estimate the total amount of money on the taxable services (Attachment 2).

Dan Ramlow discussed the removal of sales tax on labor used in original highway construction. He explained that when the state pays for a highway job, in addition to paying for the project, it now pays for the sales tax on subcontractors' labor and that money goes to fund a portion of school finance. Mr. Ramlow stated the need is no longer there and hoped the tax on services could be lifted (Attachment 3).

Bob Corkins testified against the sales tax on original construction labor services. He stated that the Legislature did not intend to hurt public works. He also stated that school finance is not the issue now and that the money is no longer earmarked for school finance. It now goes to the general fund and the highway fund will get no windfall. He emphasized the loss of growth for the state as long as the tax on labor is not lifted (Attachment 4).

Chairman Crowell closed the hearing on the collection of sales tax on original highway construction projects and opened the hearing on highway guardrails.

Linda Bird testified that her daughter was killed by a blunt-end guardrail on I-70 in December, 1992. She noted that blunt-end types of guardrail were designed and installed in the 1950s and 1960s and have not met federal regulations since 1977. Mrs. Bird stated few states have blunt-end guardrails on high-volume, high-speed highways (Attachment 5).

In conjunction with Mrs. Bird's testimony, **Galen Bird** presented a video showing crash tests of various guardrails. Mr. Bird explained that the statistics in the video were from Texas and noted that Kansas does not compile such statistics. Mr. and Mrs. Bird concluded by asking the Committee to begin replacing unsafe guardrails and bring Kansas roads, especially on high-volume, high-speed roads, up to standard as soon as possible.

Gary Graham testified that he was involved in a car/blunt-end guardrail crash in 1990, where the guardrail speared his car. He provided two photos of the accident taken by the Kansas Highway Patrol. He told the Committee that he sustained many injuries and undergoes physical therapy to increase mobility (Attachment 6).

Mike Lackey discussed KDOT's policy on replacing outdated guardrails. He explained that 50 feet of the guardrails must be damaged in an accident before they are replaced to standard. He said that most guardrails do not get damaged to that degree, so most get repaired to their original form. Mr. Lackey informed the Committee of the requirements associated with breakaway cable terminals. He said that in order to replace present guardrails with breakaway cable terminals, KDOT would have to reconstruct the guardrail site. There would be a need to level the ground and such reconstruction would require an enormous amount of land to grade it to the slope needed. He explained that it would cost the state approximately $100 million to completely replace all guardrails in Kansas. He also stated that for the same money more lives could be saved by widening shoulders and improving roadway geometrics. Mr. Lackey noted that when the Department rehabilitates a road, they attempt to replace unsafe guardrails. He also stated that the Department does not release statistics on guardrail fatalities, but said the occurrences are very low; the lowest on the list for fatalities (Attachment 7).

Chairman Crowell closed the hearing on highway guardrails and recessed the meeting until 1:30 p.m.

Afternoon Session

Chairman Crowell reconvened the afternoon session. Staff reported that the study was a result of deliberations on H.B. 2445 during the 1993 Session and that the Kansas Highway Patrol is requesting the elimination of the signing requirement to permit left turns at red traffic signals from a one-way street onto another. Staff also discussed other traffic-related matters such as speeding; not coming to a full stop at stop signs; failing to yield right of way to pedestrians; ignoring active railroad crossing devices; making illegal turns; using lanes improperly; violating traffic signal indications; encroaching on center lines; and violating passing zone restrictions. Staff pointed out that studies tend to show that motorists obey traffic control devices and laws which they deem reasonable (Attachment 8).

Lt. Sam Grant expressed support for H.B. 2445. He testified that, if enacted, lifting the signing requirement to permit left turns at red traffic signals from one-way streets onto another one-way street would eliminate confusion to drivers, since current laws allow drivers to make right turns on red unless a prohibitive sign is posted. He said the left turn on red at one-way street intersections should be the same (Attachment 9).

Jim Tobaben discussed K.S.A. 8-2004, which requires signing to conform to federal law. The only sign available for left turns at the intersection of one-way streets prohibits, not permits, left turns on red. KDOT recommends making the law less confusing to the public by conforming Kansas law to the federal law.

The hearing on these issues was closed, and the hearing on noise pollution abatement was opened.

Chairman Crowell called on staff to summarize the issues pertaining to highway noise pollution abatements. Staff noted that the Federal Highway Administration's regulation identifies two types of noise abatement programs. One program pertains to noise abatement requirements on new construction on federal-aid highways. The other federal program addresses noise problems on existing highways. Staff noted that the principal obstacle to addressing noise programs on existing highways was funds, and noise abatement programs would have to compete with other major highway programs (Attachment 10).

Jim Bush testified that KDOT complies with the federal and state requirements. He informed the Committee of noise abatement measures KDOT is taking in Wichita and Overland Park. He said noise levels in those cities have increased due to expansion of major highways in those areas (Attachment 11).

The hearing on noise abatement was closed.

Chairman Crowell called the Committee's attention to H.B. 2445. Representative Smith moved to recommend H.B. 2445 favorably for passage; the motion was seconded by Representative McClure. The motion was adopted.

A motion was made by Representative Haulmark to recommend S.C.R. 1615 favorably, and was seconded by Representative Shore. A conceptual substitute motion was made by Representative McClure to amend the resolution to clarify that the intent of the resolution was not to discourage fuel efficiency and economy. The motion to amend was seconded by Representative McKinney. Chairman Crowell passed over further deliberations until the amendment could be drafted and presented to the Committee.

The Chairman called the Committee's attention to H.B. 2195, regarding salvage pools. Representative McClure moved to only bring the vehicle salvage pools under state regulation. She withdrew her motion and no further discussion ensued.

Chairman Crowell opened the Small Airport Development topic for discussion. Representative King moved to draft legislation that would earmark the aviation fuel sales tax to fund general aviation in Kansas. It was seconded by Representative Haulmark. The motion was adopted.

The Committee also discussed topics pertaining to the safety of Kansas' guardrails, sales tax on original construction, alternative motor vehicle fuels, and restrictions on a person's driving privileges. No action was taken on these subjects.

Chairman Crowell recessed the meeting at 3:00 p.m., until 9:45 a.m., November 30, 1993.

November 30, 1993
Morning Session

Chairman Crowell opened the morning session by calling the Committee's attention to the motion on S.C.R. 1615, held open from the previous day. The draft amendment was given to members and discussed. The substitute motion made by Representative McClure to amend and seconded by Representative McKinney on the previous day carried.

Representative Shore made a motion to recommend S.C.R. 1615, as amended. The motion was seconded by Representative Smith. The motion was adopted.

The Chairman opened the hearing on suspension of driving privileges for conviction of a drug-related offense.

Secretary Michael Johnston informed the Committee that KDOT has had federal funds withheld ($7.5 million this year) because the Legislature failed to enact a law such as S.B. 294 or a resolution such as S.C.R. 1611. Next October the amount withheld would be $7.9 million. Federal law requires the withholding of certain federal-aid highway funds from states that do not enact and enforce legislation requiring the revocation or suspension of an individual's driver's license upon any conviction for any violation of the Controlled Substances Act (P.L. 91-153) or any drug-related offense. Alternatively, a state can avoid the withholding of funds by submitting to the Secretary of Transportation a written certification stating that the Governor is opposed to the enactment or enforcement of such a law and that the Legislature has adopted a resolution expressing its opposition to such a law. He indicated that the Legislature has until September 30, 1995 to comply with the federal mandate. If the Legislature enacts such a resolution or complying legislation, withheld funds will be restored to Kansas. Noncompliance after that date will result in federal funds actually being lost to the state (Attachment 12).

Norman McPherson, of the U.S. Department of Transportation National Highway Traffic Safety Administration (NHTSA), informed the Committee that the resolution passed by the Senate during the 1992 Session was reviewed by NHTSA and found to meet all Section 159 criteria of the Intermodal Surface Transportation Efficiency Act (ISTEA). He stated that a diversion provision suggested by one conferee applicable to first-time offenders does not meet the criteria set forth in ISTEA. He testified that 5 percent of fiscal year 1994's highway funds, or $7 million, has been withheld this year. If Kansas is not in compliance by September 30, 1995, the penalty increases to 10 percent on October 1, 1995 and the funds will be lost (Attachment 13).

John Smith testified that the passage of S.B. 294 would impose additional burdens on personnel of the Driver Control Bureau of the Department of Revenue. He stated that his staff has been reduced by over 50 percent while driver's license suspensions have drastically increased. He said that the Division would not be able to perform the additional duties without increasing staff, if the bill is enacted. He favored the adoption of a resolution to bring Kansas into federal compliance (Attachment 14).

Melanie Pfeifer testified on behalf of Kyle G. Smith, KBI. (His testimony is Attachment 15.) Ms. Pfeifer stated KBI was supportive of the idea in S.B. 294. She said the bill would help the Bureau by reducing the demand of casual drug users by the inconvenience of having their driver's license

suspended and embarrassment. She felt this to be a cost-effective way to send the message that drug use has its consequences at all levels of usage.

Patrick Hurley recommended either passing a drug bill or adopting a resolution that would bring Kansas into compliance with Section 159 of ISTEA. He stated his organization supports efforts that would enable the state to obtain the needed revenue of the Federal Highway Program (Attachment 16).

Mary Turkington testified her organization does not favor one action over another but encourages the Committee to take action to ensure the state's receipt of the federal revenue (Attachment 17).

The Committee next turned its attention to motorcycle helmets.

Rosalie Thornburgh explained that the federal policy is directed toward getting the states to require all persons riding motorcycles to wear helmets. She noted that ISTEA contains an incentive grant program intended to promote the passage of motorcycle helmet and safety belt laws that are in compliance with the federal act. In order for a state to be eligible for funding, it must have in effect both a law requiring all individuals riding a motorcycle to wear helmets and a law requiring individuals in the front seat of passenger vehicles to wear safety belts. Failure to meet such requirements before October 1, 1993 subjects the state to a transfer of 1.5 percent, or $1.9 million, of federal highway construction funds. For noncompliance at the beginning of federal fiscal year 1995 and beyond, the transfer will increase to 3 percent, or $3.1 million. Total estimated funds to be diverted through federal fiscal year 1997 is $8.1 million (see Attachment 18).

Norman McPherson testified on the safety aspects of helmet use and the effectiveness of state laws. He explained that five states enacted helmet laws effective January 1, 1992. Fatalities were reduced an average of 28 percent and motorcycle registrations decreased an average of 6 percent. Mr. McPherson said that when interpreting motorcycle fatality-related data, states must take into account such factors as length of riding season and the riding experience of a motorcyclist. He said that most of the state high courts have held helmet laws constitutional. Mr. McPherson noted that motorcyclists' claims that helmets impair hearing and vision, and can result in neck injuries, have been essentially negated by research conducted by Dr. Hurt at the University of Southern California, the American Medical Association, and a study conducted by Frederick P. Rivara. He also summarized rates of helmet use, mandatory helmet laws applicable to minors, and the social costs of not wearing a helmet. He updated the Committee on proposed federal legislation that would delay implementation of the penalty transfer for one year. He informed the Committee that the bill had passed the House but will not be acted upon by the Senate until the end of January, 1994 (Attachment 19).

Charles "Chip" Wheelen testified on behalf of Dr. L. E. Richardson, II, who presented a video which recounted the findings of a study in the City of Los Angeles on the use of motorcycle helmets. The study was sponsored by the National Highway Traffic Safety Administration. Among other things, the study found:

1. that accidents occurred because drivers of automobiles could not see the motorcyclists;

2. 60 percent of motorcyclists involved in accidents were not wearing a helmet;

3. 26 percent of riders said that they did not wear a helmet because it was inconvenient;

4. 53 percent of motorcyclists did not expect to be in an accident;

5. 77 percent of all accidents occurred where the automobile had a straight-ahead view of the motorcycle;

6. helmets did not impair peripheral vision;

7. vision and attentiveness were more important safety factors than hearing; and

8. helmets which cover more of the head area tend to provide the best protection to motorcyclists.

Mr. Wheelen also summarized Dr. Richardson's testimony. Dr. Richardson's testimony indicated among other things that:

1. states that have repealed helmet laws have experienced 25 percent to 50 percent increases in motorcycle rider mortality;

2. many head injury patients sustain permanent brain injury from motorcycle accidents;

3. attempts to make riding safe through training programs have failed;

4. most motorcycle accidents occur during the day, in good weather, on good roads, and in moderate traffic; and

5. the severity of injuries involving unhelmeted motorcyclists varies greatly, but often they are dramatic (see Attachment 20).

Sergeant Terry Maple expressed support for measures intended to enhance the safety of the motoring public. He said that in addition to providing safety of the motoring public, a mandatory helmet use law would make enforcement easier, because law enforcement officers would no longer be required to make a personal assessment of whether a rider or passenger was under 18, and thus, required to wear a helmet (see Attachment 21).

The Committee recessed until 1:30 p.m. for lunch.

Afternoon Session

Kenneth McNeill testified that ABATE was instrumental in proposing legislation in Congress which would provide relief from the penalty provisions in the federal mandate. He disputed many of the conclusions of the studies proponents of mandatory helmet legislation. Among other things, he disputed the proponents' assertion that excessive medical costs needed by victims of motorcycle accidents failed to note that health care costs have risen more than twice as fast as inflation over the past ten years. His testimony also indicated that motorcycle accidents account for a very small percentage of all traffic accidents (see Attachment 22).

Patty Mills testified that the Kansas Department of Education operates a rider training course, which she took in 1984. According to Ms. Mills, the state operates an excellent rider education program, including a licensing and testing program, which helps prevent accidents from occurring. She suggested the Legislature deal with issues which affect motorcycle accidents, such as uninsured riders, unlicensed riders, or alcohol-related accidents. She asked that all motorcyclists not be penalized for the actions of a few. Ms. Mills stated the helmet issue should be addressed at the state level without federal interference (Attachment 23).

Chairman Crowell closed the hearing on motorcycle safety helmets, and called on the Secretary of Transportation, Michael Johnston, to report on the state highway programs and review of specific projects added in the last year, including cost consequences of program changes.

Secretary Johnston discussed the impact of the federal Metric Conversion Bill that passed Congress mandating it in 1995 for fiscal year 1996. The conversion plan of the Federal Highway Administration mandated that by September 30, 1996, all federal contracts will be in metric units. Failure to convert to the metric system would jeopardize all federal highway funds appropriated to the State of Kansas. The cost to reprogram to the metric system is estimated to cost over $1 million.

Program management highlights were summarized. The Secretary said KDOT has 33 system enhancement projects completed or to be listed in order of need. KDOT uses the original 1989 legislative mandates and keeps track of its status. There are 1,600 miles of major modification projects to undertake. After KDOT settles on the projects to undertake, the project is programmed, budgeted, and scheduled. KDOT is currently 4 percent under the original 1989 estimated budget. Due to factors such as weather, construction costs, and changed revenue estimates, adjustments must be made in order to stay within budget and scheduling. The summer floods of 1993 affected projects by delaying jobs, and it was reported the state received $11 million from the federal government for repairs; southeast Kansas received $7 million, and $3-$5 million will be received at a later date. The Secretary stated that constructing an extension from Lawrence to Topeka on K-10 was on the lower end of "need" in Kansas, because the turnpike runs parallel to the route.

The Chairman called the Committee's attention to S.C.R. 1611, regarding federal mandates concerning the suspension of driver's licenses for drug offenses.

Representative Smith moved to draft a Kansas resolution. Representative Reinhardt seconded the motion and the motion was adopted.

Representative Shallenburger moved to have the staff work with the Department of Revenue to draft a vehicle-related drug bill. It was seconded by Representative Pauls. The motion was adopted.

Chairman Crowell called attention to the collection of sales tax on original highway construction projects.

Representative McKinney moved to draft legislation to exempt subcontractors from the sales tax. The motion was seconded by Representative Shallenburger. Representative Hendrix made a substitute motion to include all new construction including housing and all public and private construction projects should be exempted from the sales tax. It was seconded by Representative Lloyd. On a hand count, the substitute motion failed by 5 for and 6 against. The original motion made by Representative McKinney and seconded by Representative Shallenburger passed favorably.

Representative Shallenburger moved to draft a resolution regarding the federal mandate regarding motorcycle helmet use. It was seconded by Representative Lloyd. The motion was adopted.

Representative Shallenburger moved to draft a resolution against the mandates regarding the Metric Conversion Bill. It was seconded by Representative Garner. The motion was adopted.

Chairman Crowell adjourned the meeting at 3:15 p.m.

Prepared by Hank Avila

Approved by Committee on:

February 15, 1994
(Date)

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IMPORTANT TAX INFORMATION
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ATTENTION: CONTRACTORS AND SUBCONTRACTORS

• IMPLEMENTATION OF A 2.5 PERCENT SALES TAX EFFECTIVE JUNE 1, 1992, ON:

- CONTRACTORS PERFORMING LABOR SERVICES IN CONNECTION WITH THE ORIGINAL CONSTRUCTION OF BUILDINGS OR FACILITIES.

SEE INSIDE COVER FOR ADDITIONAL INFORMATION AND INDEX TO THIS DOCUMENT

Attachment 1
H. Transp. 11/29/93

Kansas Department of Revenue

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Special Notice to Kansas Contractors

May 1992

Retailers' Sales and Compensating Tax

Joan Finney
Governor

Mark Beshears
Secretary of Revenue

Published by the
Kansas Department of Revenue
P.O. Box 12001
Topeka, KS 66625

The 1992 Kansas legislature enacted House Bill 2892 which makes major changes to the Kansas sales and compensating tax law. The changes become effective **June 1, 1992.** This notice is a summary of the changes and is designed to assist contractors in applying the new law to their businesses.

If you have any questions regarding the information contained in this notice, please call the Taxpayer Assistance Bureau or one of our regional offices. Our staff will assist you. Telephone numbers for the Taxpayer Assistance Bureau and our regional offices are printed on page 7 of this notice.

MAJOR CHANGES

1. NEW IMPOSITION OF SALES TAX AT A REDUCED RATE OF 2.5 PERCENT ON CERTAIN LABOR SERVICES

The 1992 legislature imposed a new sales tax at a reduced rate of 2.5% on sales of labor services performed in connection with the original construction of a building or facility. Such services were previously exempt from tax. (See page 3 for general discussion.)

2. GENERAL SALES AND USE TAX RATE INCREASE

The 1992 legislature increased the statewide sales and use tax rate from 4.25% to 4.9%. The increase is effective June 1, 1992. (See page 5 for general discussion.)

1. SALES TAX AT THE RATE OF 2.5% ON SALES OF LABOR SERVICES ON OR AFTER JUNE 1, 1992.

The 1992 legislature enacted new law that imposes sales tax at a reduced rate on certain services that were formerly exempt from tax. Those services include installing and applying tangible personal property in connection with the original construction of a building or facility and the construction, reconstruction, restoration, replacement or repair of a bridge or highway. Such labor services are now subject to sales tax at the reduced rate of 2.5%, plus any applicable city and county sales tax. "Original construction" means the first or initial construction of a building or facility and includes improvements immediately surrounding such building or facility including items such as landscaping, driveways, sidewalks and decks.

Labor services performed on construction projects that were previously subject to state sales tax remain subject to tax but at the new rate of 4.9%. Various other labor services that were previously exempt from sales tax remain exempt from tax. Exempt services include services performed to install or apply tangible personal property in connection with the original construction of oil and gas wells and community housing development projects sponsored by nonprofit community housing development organizations. Materials purchased on or after June 1, 1992 for installation or application in these projects are subject to sales tax at the rate of 4.9% regardless of the fact that labor service charges are exempt or are subject to the reduced rate.

The new law contains special provisions for contracts that were entered into before May 15, 1992 if certain conditions are met. Contractors that are obligated under such contracts may avoid the rate increases and new taxes if they comply with certain requirements.

The new enactment states:

> "If any contractor has entered into a written binding contract prior to May 15, 1992, for the original construction of a building or facility or the construction, reconstruction, restoration, replacement or repair of a bridge or highway, and such contract and the contract price includes the furnishing by the contractor of services which would have been exempt from taxation pursuant to this subsection prior to its amendment by this act, such services shall continue to be exempt from taxation if the contractor gives notice and proof of such contract to the Director of Taxation on or before July 10, 1992. The notice of proof shall be in the format provided by the Director of Taxation." (An affidavit is provided on page 8 of this notice.)

A contractor may avoid charging and collecting sales tax on previously exempt services if the following two conditions are met:

1. The contractor entered into a written binding contract prior to May 15, 1992, and;

2. The contractor gives proof and notice to the Director of Taxation by completing and mailing the "AFFIDAVIT TO REGISTER CONSTRUCTION PROJECTS" on or before July 10, 1992.

Contractors and others who qualify for the reduced tax rate must provide the Department of Revenue with a separate affidavit for each qualifying contract.

The affidavit must be in the form set forth on page 8 of this notice. It must be signed by the firm's owner if an individual proprietorship, a partner if a partnership, or an officer if a corporation.

The affidavit must be mailed to the Department of Revenue and be postmarked on or before July 10, 1992. Upon receipt of the affidavits, the Business Tax Bureau will issue a numbered permit. The permit may also be used by the contractor to purchase materials for the qualifying project at the state rate of 4.25%. Any applicable city and/or county local sales tax in effect at the time of the sale will continue to apply.

EXAMPLES OF SERVICES THAT ARE NOW SUBJECT TO SALES TAX AT THE 2.5% RATE

1. Taxable services include services performed under contracts for the construction of a "building" or "facility." The law defines "buildings" to mean enclosures within which individuals customarily live or are employed, or which are customarily used to house machinery, equipment or other property. It includes houses, garages, office buildings, shopping malls, barns, etc. The law defines "facility" to mean mills, plants, refineries, water wells, feedlots, and REA transmission lines.

2. Other taxable services include the restoration, reconstruction or replacement of a "building" or "facility" damaged or destroyed by fire, flood, tornado, lightning, explosion or earthquake.

3. Additional taxable services include services performed under contracts to construct, reconstruct, restore, replace and repair bridges and highways.

Contractor who perform labor services for exempt entities such as the federal government or the State of Kansas should be aware of special rules that apply when performing work for those entities.

Partially Exempt Projects of the State of Kansas: Services purchased directly by the State of Kansas remain exempt from sales tax. This means that a contractor who contracts directly with the state and receives payment directly from the state should not charge sales tax on the labor services. Contractors performing state contracts should continue to pay tax on their purchases of construction materials and on their payments to subcontractors. Services provided by subcontractors on state contracts are not direct purchases by the State of Kansas and are not exempt from sales tax. The law does not allow project exemption certificates to be issued for state construction projects. Materials and services to construct or reconstruct highways within a city's limits and county secondary roads are exempt from tax if the city or county contracts for the services, provides the funds and obtains a project exemption certificate.

Exempt Projects of the U.S. Government, Political Subdivisions of the State of Kansas, Nonprofit Hospitals and Nonprofit Educational Institutions: Project exemption certificates may be issued to the U.S. government, political subdivisions of the state of Kansas, nonprofit hospitals and nonprofit educational institutions. The exempt entity must obtain the project exemption certificate from the Department of Revenue and provide copies to the contractor and subcontractors. A project exemption certificate allows the contractor and subcontractors to purchase construction materials exempt from sales tax and allows the contractor to purchase services from the subcontractors exempt from sales tax. (This exemption includes the 2.5% sales tax on "original construction" services as well as the 4.9% sales tax on remodeling services.) If the exempt entity fails to obtain the project exemption certificate, materials purchased by the contractor and subcontractors and services performed by the subcontractors are subject to sales tax. Sales of construction materials to contractors and subcontractors are not direct purchases by the exempt entity. Services performed by the general contractor are direct purchases and remain exempt.

Exempt Projects Located in Enterprise Zones: A project exemption certificate may also be obtained to exempt the purchase of tangible personal property and services for constructing, reconstructing, enlarging or remodeling a qualified business facility located in an enterprise zone. This exemption extends to the purchase and installation of machinery and equipment intended for installation at such a facility. Labor services to construct or expand a qualified business facility located in an enterprise zone are exempt from sales tax if a project exemption certificate is obtained from the Department of Revenue.

HOW TO APPLY THE 2.5% SALES TAX TO ORIGINAL CONSTRUCTION LABOR SERVICES

Computing the tax base for construction contracts requiring the installation or application of tangible personal property.

The tax base for construction contracts is the total contract amount less land costs, cost of materials (on which sales/use tax has been paid), payments to subcontractors and payments for professional services. Subcontractors include: carpenters, electricians, plumbers, painters, roofers, dry-wall contractors and other contractors who install or apply tangible personal property. Professional services include: architects, engineers, surveyors and real estate sales services that are a direct cost of the construction or sale of the building or facility. **Profit and overhead are subject to**

sales tax. The contractor is not allowed to deduct overhead expenses such as building permits, sewer hook-up fees, travel expenses, per diem, the purchase, lease or rental of machinery and equipment, consumable supplies such as form lumber, sand paper, hand tools and other similar expenses.

Situation #1: A general contractor enters into a contract to construct a new building. Neither the general contractor or employees of the general contractor perform labor services to install or apply tangible personal property.

1. General contractor - A general contractor that does not perform taxable labor service would not be required to collect and remit the 2.5% sales tax as no taxable services were performed by this contractor. —

2. Subcontractors - Taxable labor services performed by a subcontractor on or after June 1, 1992 are subject to the 2.5% tax unless the subcontractor had entered into a written binding contract prior to May 15, 1992 and had registered that contract with the Department of Revenue prior to July 10, 1992. The tax is computed as stated on page 4.

Situation #2: A general contractor enters into a contract to construct a new building and the general contractor or his/her employees install or apply tangible personal property.

1. General contractor - The general contractor is required to collect and remit the 2.5% sales tax, plus any applicable city or county local sales tax, on the contract amount as computed on page 4.

2. Subcontractors - see situation #1.

Situation #3: A general contractor speculates and constructs a building without a contract for the sale of that building.

1. General contractor - If neither the general contractor or his/her employees install or apply tangible personal property then the general contractor is not required to collect and remit the 2.5% state sales tax. If the general contractor or his/her employees install or apply tangible personal property on a building the contractor owns, then the 2.5% state sales tax does not apply. However, when the general contractor enters into a written binding contract for the sale of the speculation home, the services provided from the date of the contract to the completion of the project are subject to the tax.

2. Subcontractors - see situation #1.

Sales tax liability.

General contractors and subcontractors who do not separately state the amount of sales tax for services performed in their contract, bid estimates, customer billings or other evidence of the transaction are required to state in the document that all applicable sales taxes are included in the selling price. If the statement "All applicable sales taxes are included" does not appear in the contract, bid estimate, billing or other evidence of the transaction, it shall be presumed that the sales tax was not charged to the consumer.

K.S.A. 79-3604 states: "In the event the full amount of the tax provided by this act is not paid to the retailer by the consumer or user, the director of taxation may proceed directly against the consumer or user to collect the full amount of the tax due on the retail sale." If the general contractor pays sales tax to a subcontractor and the subcontractor does not remit the tax to the Department of Revenue, the Department will proceed against the subcontractor. If the general contractor has not paid the sales tax to the sub-contractor and it is determined that sales tax should have been collected, then the Department may proceed directly against the general contractor (the consumer) for collection of the tax. In the event that a general contractor provides a subcontractor with an exemption certificate stating that the transaction was not subject to sales tax (for instance a copy of an affidavit stating that a contract to construct the building was entered into prior to May 15, 1992 and that the contract was registered with the Department) and it is later determined that the transaction is subject to sales tax, then the Department may proceed directly against the general contractor.

Mobile homes and manufactured housing.

K.S.A. 79-3606(hh) exempts 40% of the gross receipts from the sale of new mobile homes and manufactured housing. This exemption remains in effect. Therefore, 40% of the selling price of a mobile home or manufactured house is subject to the 4.9% state sales tax, plus any applicable city and county local tax. However, 2.5% sales tax, plus city and county local sales tax, applies to all labor services performed installing this type of home. The 2.5% sales tax also applies to any new additions to the home such as the addition of a garage once the home is installed.

Services that are subject to the 2.5% sales tax are also subject to all applicable city and county local taxes.

To determine city and county local tax, apply the following rule:

1. If the total contract amount exceeds $10,000 then the local tax is determined by the location where the services are performed. Therefore, if a framer enters into an $11,000 contract, with a general contractor, to frame a house located in Topeka, Kansas (original construction), the labor services are subject to the 2.5% state sales tax and the 1.0% Topeka city tax. (The Shawnee county tax would also apply if the county had a local sales tax).

2. If the total contract amount is $10,000 or less then the local tax is determined by the retailer's place of business. Therefore, if a plumber enters into a $5,000 contract to install the plumbing in the house in the example above, the labor services will be subject to tax based on the place of business of the plumber. If the plumber's place of business is in Lawrence, Kansas, then these taxable services will be subject to the 2.5% state sales tax plus the 1.0% Lawrence city tax. (The Douglas county tax would also apply if the county had a local sales tax). If a contractor's only place(s) of business is outside the state of Kansas, no city or county local tax applies if the total contract amount is $10,000 or less.

Important registration information. Contractors, subcontractors and repairmen who are not currently registered must register as retailers. They may obtain a Business Tax Application, BT/rg-16, by calling one of the Kansas Department of Revenue offices listed on page 7 of this notice. Contractors, subcontractors and repairman with a current sales tax registration number must complete the Supplemental Registration Form. The supplemental registration form is available in the May, 1992 General Sales and Compensating Tax Notice. It may also be obtained by contacting one of our offices.

2. GENERAL SALES AND USE TAX RATE INCREASE.

The new state sales tax rate of 4.9% goes into effect on June 1, 1992 at 12:01 a.m.

The new legislation does not affect city and county local sales tax rates. All local sales taxes remain in effect and are in addition to the new 4.9% state tax rate.

Generally, all purchases and sales of tangible personal property and taxable services that have been subject to sales tax at the rate of 4.25% will become subject to tax at the the new rate of 4.9% on June 1, 1992. Other than for construction contracts, it is immaterial that an order or contract to sell or purchase property or services was entered into before June 1, 1992.

The new legislation excepts certain construction contracts entered into before May 15, 1992 from the .65% tax increase. This exception allows contractors to purchase materials and provide services for other than original construction at the 4.25% rate if the written binding contract was entered into prior to May 15, 1992 and the contract is registered with the Department of Revenue on or before July 10, 1992. Contractors will be allowed to purchase materials at the 4.25% state rate and continue to exempt the services provided on original construction projects for all written binding contracts entered into prior to May 15, 1992 if the contract is registered with the Department of Revenue on or before July 10, 1992. The exception for contractors is discussed in more detail on p. 7.

REFERENCE

K.S.A. 79-3603 as amended by House Bill No. 2892 enacted by the 1992 Session of the Kansas Legislature.

GENERAL INFORMATION

1. Consumer's Compensating Tax Accounts

All taxable purchases delivered to the consumer on or after June 1, 1992 are subject to the new tax rate of 4.9%.

The following method should be followed by consumers and users who file their returns on an annual or quarterly basis:

> Compensating tax filers report taxable purchases on Line 1 of their compensating tax returns.

Annual and quarterly filers should maintain a separate list of taxable purchases made before June 1, 1992 and should compute the sum of those purchases. That amount should be multiplied by 86.735% and added to the sum of the purchases made after June 1, 1992. The resulting total should then be entered on Line 1 of the return. The filer should compute and remit tax at the rate of 4.9% on the resulting net taxable purchases for the reporting period.

The same method should be used by those filing compensating tax on a monthly basis for purchases made prior to June 1, 1992 and were not previously reported.—

The method results in the consumer or user paying tax at the appropriate rate of 4.25% on purchases made before June 1, 1992.

2. Leases and Rentals of Tangible Personal Property

Lease and rental billings made on or after June 1, 1992 are subject to tax at the rate of 4.9%. It is immaterial that the lease or rental agreement was entered into before June 1, 1992.

3. Maintenance and Service Contracts

Maintenance and service contract billings made on or after June 1, 1992 are subject to tax at the rate of 4.9%. It is immaterial that the maintenance or service contract was entered into before June 1, 1992.

4. Contractors, Subcontractors, and Repairmen

The sale of taxable services by contractors, subcontractors, repairmen or others is considered to occur when the services are performed. Thus, taxable services performed on or after June 1, 1992, are subject to the tax at the rate of 4.9%.

Contractors, subcontractors, repairmen or others who report taxable services performed before June 1, 1992 on their monthly returns for June, or on their quarterly or annual returns that include June, should use the method set forth on page 6 of this notice for reporting the tax that is due.

CONTRACTORS WHO ENTER INTO BINDING CONTRACTS PRIOR TO "MAY 15, 1992."

House Bill No. 2892, which increases the tax rate from 4.25% to 4.9%, contains an exception from the increased rate for those contractors who entered into a written binding contract prior to May 15, 1992.

The exception allows a contractor to purchase materials for incorporation into a construction project at the 4.25% state sales tax rate. (Materials for original and other than original construction) and provide taxable services (Install or apply tangible personal property other than for "original construction.") at the 4.25% state sales tax rate.

To qualify for the exception the contractor is required to register each contract with the Department of Revenue. To register a contract complete the "Affidavit to Register Construction Projects" included in this notice.

This notice is designed for informational purposes only. It should not be used or cited as authority for setting or sustaining a technical position.

If you have any questions concerning this notice, you may direct your inquiries to one of the following offices:

Kansas Department of Revenue
Taxpayer Assistance Bureau
Topeka, Kansas 66612-2001
(913) 296-0222

Kansas Department of Revenue
Wichita Regional Taxpayer Assistance Office
257 N. Broadway, Suite 302
Wichita, Kansas 67202
(316) 291-2210

Kansas Department of Revenue
Kansas City Regional Taxpayer Assistance Office
1961 N. 63rd St.
Kansas City, Kansas 66102-1101
(913) 788-3445

KANSAS DEPARTMENT OF REVENUE
BUSINESS TAX BUREAU

AFFIDAVIT TO REGISTER CONSTRUCTION PROJECTS

THIS AFFIDAVIT IS REQUIRED FOR CONTRACTORS, SUBCONTRACTORS AND REPAIRMEN TO REGISTER WRITTEN, BINDING CONTRACTS ENTERED INTO PRIOR TO MAY 15, 1992, IN ORDER TO ALLOW PURCHASES OF MATERIALS AND LABOR SERVICES AT THE KANSAS SALES AND COMPENSATING TAX RATE IN EFFECT PRIOR TO JUNE 1, 1992.

_____ Today's Date _____

(Project Owner)

_____ Estimated Completion Date _____

(Project Address)

_____

(City, State, Zip Code)

Type of contract (i.e. house, bridge,highway, commercial building, etc.)

Contract or project number if applicable: _____ Contract date: _____

Total amount of contract: $ _____

Estimated dollar amount of materials to be purchased to complete contract: $_____

Check box to indicate original construction or other than original construction (check one only).

____ Furnish labor services in connection with the original construction of a building or facility or the construction, reconstruction, restoration, replacement or repair of a bridge or highway.

____ Furnish labor services to repair, alter or maintain tangible personal property with a sales tax imposed at the rate of 4.25%.

Mail to:
KS Department of Revenue
Business Tax Bureau
Attn: Stacy Brannock
P.O. Box 12001
Topeka, KS 66625-0001

_____
(Contractor/Subcontractor - circle one)

_____
(Signature and Title)

_____
(Address)

_____
(City, State, Zip Code)

Telephone No. _____

This affidavit will not be approved if incomplete or if postmarked after July 10, 1992. Any questions concerning this form should be directed to the Kansas Department of Revenue, Business Tax Bureau, Topeka, KS 66625-0001, or call (913) 296-2461.

STATE OF KANSAS

KANSAS DEPARTMENT OF TRANSPORTATION
Docking State Office Building
Topeka 66612-1568
(913) 296-3566
FAX - (913) 296-1095

Michael L. Johnston
Secretary of Transportation

Joan Finney
Governor of Kansas

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TESTIMONY BEFORE THE HOUSE TRANSPORTATION COMMITTEE REGARDING SALES TAX ON SERVICES OF ORIGINAL CONSTRUCTION @ 2.5% RATE

November 29, 1993

Mr. Chairman and members of the Committee:

My name is Robert Haley and I am Director of Administration for the Kansas Department of Transportation. I appreciate the opportunity to appear before the Committee. The Department of Revenues administers and enforces the sales tax statutes and can best answer specific questions on the law and its administration. I will discuss how the law relates to KDOT.

Under current Kansas statutes, contractors and subcontractors who provide materials used in construction projects must pay sales tax on the materials. We assume that the bid amount of any such contract would be sufficient to cover any contractor's or subcontractor's sales tax liability. In the case of services, contractors' service are not subject to the 2..5% sales tax but subcontractor services are taxable. As in the case of materials, the contractor would be expected to increase the contract price to cover the cost of the sales tax on subcontractor services.

The amount of sales tax that the Department effectively pays for subcontractor services can only be estimated. The Department does not require bidders to specify in their bids the amount being paid to subcontractors nor the amount of the subcontractor work which is attributable to taxable services. For example, when a contractor bids on a construction job, the contractor may elect to use a subcontractor to perform the asphalt work. In submitting the bid, the contractor will specify the intention of using a subcontractor for the asphalt work and the price per cubic yard for the work. The bid price does not represent the amount which is being paid to the subcontractor but the amount the contractor wants. This would include the amount paid to the subcontractor, any contractor costs and any contractor profits. In addition, the bid does not identify how much of the subcontracted work is services. As a result, the Department can only estimate the total number of dollars of taxable services.

The Department estimates that for FY 1994, the approximate amount of sales tax on taxable services for construction contracts will be approximately $2 million or slightly less. For FY 1994 to FY 1997 the amount is estimated to average between $2 and $3 million per year.

H. Transp.
11/29/93
Att. 2

THE KANSAS CONTRACTORS ASSOCIATION, INC.

3

1923 - 1993

70 YEARS OF EXCELLENCE

316 SW 33RD ST PO BOX 5061
TOPEKA KS 66605-0061
PHONE (913) 266-4152
FAX (913) 266-6191

TESTIMONY

PRESENTED NOVEMBER 29, 1993

BY THE KANSAS CONTRACTORS ASSOCIATION

BEFORE THE HOUSE TRANSPORTATION COMMITTEE

REGARDING

SALES TAX ON ORIGINAL HIGHWAY CONSTRUCTION PROJECTS

Mr. Chairman and members of the House Transportation Committee, I want to thank you for allowing me the opportunity to appear before you this morning to discuss the removal of the sales tax on original highway construction projects.

My name is Dan Ramlow. I am Executive Director of the Kansas Contractors Association. Our association represents more than 330 heavy, highway, and utility contractors and associates here in Kansas.

I am here this morning to strongly support the removal of the sales tax on labor used in highway construction. This tax was imposed two years ago as part of the School Finance Bill and raises approximately 2 and a half million dollars in revenue for Kansas.

H. Transp.
11/29/93
Att. 3

We believe this tax was inadvertently implemented when the School Finance package was passed and it is my belief it was not the intent of the Legislature to have it be imposed upon the highway industry. It has caused a tremendous inconvenience to our highway contractors dues to its interpretation.

For one thing, when the tax was implemented, the revenue department had a difficult time in explaining which items were taxable and which were not. It was not until sometime in August that many contractors got the right information for their operations.

Secondly, besides the additional paperwork for our contractors, it has also caused additional work for the revenue department which has to determine what tax has to be collected, on what projects, which materials, and whether it should be collected at all. As you may realize, sales tax on materials is at 4.9%, there is no tax on dirt excavation work, and the labor tax is at 2.5%, unless the project is tax exempt.

In addition, this tax basically only affects the subcontractors of our industry. Prime contractors, who work for the state are not charged the tax since they contract directly with the state, and the state cannot impose a tax on itself. As a result, subcontractors on projects do charge a sales tax for the work they do for the prime contractor. What this means to you and I is that our highway projects cost the state a little more money because of this tax.

For example, when a prime bids on a job, he includes the costs incurred by his subcontractors. Subcontractors now must submit bids including the sales tax on labor. As you can see, when the state pays for a highway job, in addition to paying for the project, it is also now paying for the sales tax on labor.

This means money that was designated to build roads is now being diverted to pay taxes, which then go into the school finance funding process.

For the above reasons, I respectfully request that you remove the sales tax on labor regarding the construction of roads and highways in our state.

I appreciate your time today and I will be glad to try and answer any of your questions.

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LEGISLATIVE TESTIMONY

Kansas Chamber of Commerce and Industry

835 SW Topeka Blvd. Topeka, Kansas 66612-1671 (913) 357-6321 FAX (913) 357-4732

Sales Tax - Construction

November 29, 1993

KANSAS CHAMBER OF COMMERCE AND INDUSTRY
Testimony Before the
House Committee on Transportation
by
Bob Corkins
Director of Taxation

Mr. Chairman and members of the Committee:

My name is Bob Corkins, director of taxation for the Kansas Chamber of Commerce and Industry. I appreciate this chance to express our members' opposition to the current sales tax upon labor in original construction projects.

The Kansas Chamber of Commerce and Industry (KCCI) is a statewide organization dedicated to the promotion of economic growth and job creation within Kansas, and to the protection and support of the private competitive enterprise system.

KCCI is comprised of more than 3,000 businesses which includes 200 local and regional chambers of commerce and trade organizations which represent over 161,000 business men and women. The organization represents both large and small employers in Kansas, with 55% of KCCI's members having less than 25 employees, and 86% having less than 100 employees. KCCI receives no government funding.

The KCCI Board of Directors establishes policies through the work of hundreds of the organization's members who make up its various committees. These policies are the guiding principles of the organization and translate into views such as those expressed here.

The degree to which the tax directly burdens highway construction is only one part of KCCI's concern. However, this aspect of the tax is perhaps the most objectionable. We contend that this application constitutes the spending of state tax revenue in order to pay state taxes -- an illogical and wasteful policy.

H. Transp.
11/29/93
Att. 4

Although general contractors are exempted from ***direct*** liability for this sales , their subcontractors have been held liable. Consequently, the general contractors must incorporate that expense in their highway construction bids and the state is the ultimate payor. Not only is the policy insensible, it is also inequitable. Other public works projects are now accorded blanket sales tax exemptions which apply vertically to subcontractors and general contractors alike.

There is also the question of legislative intent. Few affected parties suspected in 1992 that this new sales tax would be applied in any way to public works projects. As a participant in the process at that time, I know the question was raised, casually dismissed, and that more than one legislator voted on the tax proposal believing that the state's Comprehensive Highway Program (for example) would not experience greater costs as a result.

KCCI believes the tax, for many reasons, should not have been created to begin with and should now be repealed in its entirety. This tax has generated only a small percentage (approximately 10%) of the revenue it was originally projected to raise. That product can be reduced even further -- perhaps by more than half -- if you were to discount the tax proceeds by the extra expenditures from state coffers.

This is poor public policy, poor economic policy, which should be reversed.

Thank you for your time and attention.

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REPORT TO HOUSE TRANSPORTATION COMMITTEE

Nov. 29, 1993

Our daughter, Judy, was killed Dec. 19, 1992 at mile marker 263.8 on I-70 by a blunt-end guardrail. This guardrail speared the car, went through Judy and exited the rear of the car. We are here today to make you aware of the serious guardrail problem in this state. It is our goal to help you solve this problem as quickly, efficiently and economically as possible. We understand that federal funds are available for this project with a possible 90% federal match.

The guardrail that killed Judy was the blunt-end type designed and installed in the 50's and 60's. The highway department has been aware of the spearing problem of this guardrail since the early 60's. There was a congressional hearing before a sub-committee for the House of Representatives May-July of 1967 on the blunt-end spearing problem. Many fatal accidents were discussed at that time. It is our belief that Judy would be alive today if that guardrail had been up to today's standards. According to a report from a Roadside Safety Workshop, guardrails must be designed so that the end facing traffic is not a fixed-obstacle hazard. An ideal guardrail won't spear, vault, or roll a vehicle in an end-on hit. According to "Guardrail End Treatments in The1990's", the BCT (Breakaway Cable Terminal) was the only guardrail terminal shown as "Operational" in the 1977 Barrier Guide. We think that is the year the blunt-end guardrail that killed Judy was installed.

Instead of replacing the damaged guardrail with one that meets today's standards, Kansas repaired it with the same blunt-end. The FHWA says that even if these guardrails had reflectors on them it would cut the accident rate by up to 50%. Another report says that any blunt-end guardrail condition should be replaced in as expedient a manner as economically feasible.

The Federal Highway Administration has been emphasizing highway safety for the past several years. Where has Kansas been? We understand that there are very few states that have any blunt-end guardrails on any of their high volume, high speed roads. One person told us we shouldn't be having to discuss this type of guardrail. He said they shouldn't still exist on our

H. Transp. 11/29/93
Attach. 5

nations' highways. We feel the guardrail system in the State of Kansas does not meet minimum safety standards. Even the turndowns on the Kansas Turnpike have been prohibited by the FHWA since June 28, 1990 on high speed, high volume roads. This turndown was developed in the early 60's in response to a very urgent problem--the spearing of the blunt-end rails. The turndowns were widely implemented without crash testing. Most states chose to ignore the danger as being nearly as grave as the blunt-end it replaced. We understand there is a 17% or more fatality and incapacitating injury rate on these guardrails.

It appears to us that even on their brand new sections of road, Kansas is installing the BCT, designed and crash tested in 1971, which is already outdated and known to be unsafe for small cars. We also understand it is critical that the BCT be installed properly with a four-foot flare.

There are several new systems available, designed in the past 10 years that seem to be working well. We would now like to show you a crash test video explaining the various guardrail systems.

AFTER VIDEO

It is our opinion that it would be better to spend more money to install a guardrail that will last years into the future and will save many lives and prevent many serious injuries and accidents. These systems can be repaired and reused instead of having to install a totally new system. According to the "Yellow Book Road", published in 1974, the total annual cost to society of roadside hazard crashes was in excess of $6 billion.

Although we would like to see the Kansas guardrails replaced immediately, it isn't our intent to try to "break" the state of Kansas or take every penny of highway funding next year. Our goal is to get the legislature to pass a bill in the upcoming session implementing a systematic program for guardrail

terminal replacement over the next 4-5 years. We would expect the blunt-ends on high speed, high volume roads be replaced within a year. This bill should also provide for continuous guardrail replacement and updating in the future.

Isn't it time for Kansas to become a leader in highway safety? We are willing to meet with anyone, anytime, anyplace, anywhere to get these killers off of our states' roads. When we take this campaign to other states and nationwide, we would be proud to say that Kansas is going to be a leader in highway safety.

SUMMARY OF VIDEO AND OTHER PERTINENT INFORMATION

BLUNT END;

1. Fatality rate; Terrible
2. Outdated in 60's , because of spearing if hit on end.
3. The one that killed Judy Bird was installed in 1977. WHY?

TURNDOWN or TEXAS TWIST;

1. Was developed in early 60's to correct spearing problems.
2. Was widely adapted in many states without proper testing.
3. End guardrail accidents in Texas/year--736; 1. 278 overturned(38%), 2. 43 killed (6%), 3. 128 killed or incapacitated (17%).
4. Because the rollover of a vehicle was likely, in June,1990 the FHWA prohibited its use on roads with speeds over 50mph or 6,000. Cars/day.

B.C.T. BREAKAWAY CABLE TERMINAL; COST; $1,050.00

1. Was and is widely used but barely passed crash tests.
2. It worked fairly well on large cars but failed on small cars.
3. These may be the ones Kansas is installing now.
4. One disadvantage is that they must be installed correctly and many are not, resulting in worse accidents.
5. We were told the fatality rate is about the same as Turndown. We can't prove this, but we will try to verify.

ECCENTRIC LOADER BCT COST; $1,400.00

1. Was better than B.C.T. however it did not perform well in small car crashes with end-on impacts.
2. To promote buckling, all of the bolts used to connect the W-beam rail to the post have been removed from posts 2 through 6.

MELT; MODIFIED ELT; COST; $1,400.00

1. Was the same as E.L.T. except for 2 pieces of steel in nose cone.
2. Due to similarities to the E.L.T. , most used the E.L.T., even with the slight improvement in the MELT.

SENTRE(Safety End Treatment Terminal) COST; $4,000.00-$15,000.00

1. Through 1987, good performance in 29 crashes, 2 marginal. Of these 14 drove away.

TREND; COST $6,000.00

1. Same as SENTRE with a steel strap added to the back to redirect vehicles on side impact.

CAT; Crash Cushion Attenuating Terminal COST; $4,500.00

1. The CAT is a double-sided unit so it can be used as a median barrier terminal also.
2. 59 impacts as of Jan. 1992 and no fatalities. (as guardrail terminal)

E.T-2000 or EXTRUDER COST. $2.300.00

1. During an end-on impact, the W-beam enters a feeder chute and is flattened and redirected away from the vehicle.
2. The impact energy is absorbed by flattening the steel W-beam and breaking away the wood posts.
3. We were told there have been 50-70 impacts with no one spending a night in the hospital. (We can't verify this)

BRAKEMASTER; COST; $5.000.00 to $6.500.00 Old report said $12,000.00

1. We have no crash test data, but looked good on controlled crash.

IT HAS BEEN ESTIMATED THAT THE USE OF REFLECTIVE SHEETING AND REFLECTIVE PANELS TO DELINEATE THE ENDS OF TERMINALS AND CRASH CUSHIONS CAN REDUCE THE NUMBER OF ACCIDENTS BY AS MUCH AS 50%.

THE GUARDRAIL THAT KILLED JUDY BIRD DID NOT HAVE A REFLECTOR AND WE HAVE SEEN VERY FEW, IF ANY ON THE ENDS OF THE OUTDATED GUARDRAILS.

U.S. Department of Transportation
Federal Highway Administration

Technical Advisory

Subject

CORRUGATED STEEL GUARDRAIL TERMINALS

Classification Code	Date
T 5040.33	February 9, 1993

Par. 1. Purpose
2. Background
3. Summary
4. Related Technical Information
5. Recommendations

1. PURPOSE. To consolidate information on end treatments that are currently considered acceptable for use with w-beam and thrie-beam guardrails and to provide guidance on appropriate uses for each of them.

2. BACKGROUND

a. High-speed crashes into guardrail terminals are usually more severe than those in which the face of the barrier is struck by errant motorists. Therefore, designers must be aware of the operational characteristics of the numerous terminals available and select a terminal that is most appropriate for a given location. An ideal terminal will not spear, vault, or roll a vehicle in an end-on hit, may allow controlled penetration in some cases, and will provide smooth redirection when struck on the side within its design length of need. Occupant deceleration levels must remain below specified limits in all cases. The specific tests and evaluation criteria currently used to develop guardrail terminals are found in the NCHRP Report 230, "Recommended Procedures for the Safety Performance Evaluation of Highway Appurtenances." It should be noted that work is nearing completion on NCHRP Report 350, "Recommended Procedures for the Safety Performance Evaluation of Highway Features," a document which will replace NCHRP Report 230 and which will likely provide guidance for testing and evaluating terminals in the future.

b. General information on guardrail terminals is contained in Chapter 5 of the 1989 AASHTO "Roadside Design Guide." More specific information on the Breakaway Cable Terminal (BCT) and the Eccentric Loader Terminal (ELT) has been

previously issued in FHWA Technical Advisories T 5040.23, Corrugated Sheet Steel (W-Beam) Guardrail, dated March 13, 1984; T 5040.25, W-Beam Guardrail End Treatments, dated January 7, 1986; and T 5040.25, Chg 1, W-Beam Guardrail End Treatments, dated December 15, 1987. Additionally, a FHWA memorandum sent to all Regional Administrators on March 27, 1991, provided information on the Modified Eccentric Loader Terminal (MELT). Information on proprietary terminals has been distributed to the field via copies of FHWA acceptance letters to various manufacturers. Except as noted below, information contained in this Technical Advisory supplements the earlier documents.

3. SUMMARY

a. Terminals for w-beam and thrie-beam guardrails are an essential part of every barrier installation, providing an anchor against which the full tensile strength of the rail can be developed for downstream hits while remaining crashworthy for end-on impacts.

b. In the past, only a few terminal types were available for selection by a designer. Today, several non-proprietary terminals, mostly of a breakaway type, and several proprietary products are available for use.

c. Paragraph 4 contains information on the evolution and current status of all terminals considered suitable for use with corrugated sheet steel guardrails (w-beam and thrie-beam).

4. RELATED TECHNICAL INFORMATION

a. General - guardrail terminals can be categorized as non-proprietary or proprietary as defined in paragraphs 4b and 4c, and must demonstrate crashworthy performance through full-scale testing before they can be used in the field. These tests are typically run on level terrain and on installations having an obstruction-free runout area behind and beyond the terminal. The runout area is, of course, essential for terminals which fracture and permit penetration behind the barrier (gating terminals). Unless these conditions are reasonably approximated in the field, actual terminal performance may be degraded. For the terminals listed below, optimal performance can be expected only when the grading is such that an errant vehicle can strike the terminal with all wheels on the ground and with little or no pre-crash roll angle.

Normally, this will require that the flat slope between the barrier and the roadway be continued at least 1.5 m (5 feet) behind the terminal to accommodate off-center impacts. For gating terminals, a relatively clear runout path is also needed. The actual distance required will vary depending on the size and speed of the vehicle and on its impact angle. An obstacle-free rectangular area extending a minimum of 22.5 m (75 feet) beyond the terminal (parallel to the rail) and 6.1 m (20 feet) behind the rail is suggested. However, a runout area of that size will not necessarily accommodate all impacts that might occur.

b. Non-Proprietary Terminals - terminals in this category are generally unpatented or can be provided without payment of royalties to a manufacturer or to an individual. Included in this list are turned-down terminals, breakaway cable terminals, and w-beam guardrail anchored in a cut slope. A discussion of each follows:

(1) Turned-Down Terminal

(a) The turned-down w-beam terminal was developed to eliminate spearing of the rail into the passenger compartment of impacting vehicles and was a significant improvement over earlier full-height, stand-up ends. However, both field experience and subsequent full-scale crash testing showed that vehicle rollover is likely with these terminals under high speed impact conditions. The initial tests on the turned-down terminal were run on a rigid design (i.e., the rail was firmly mounted to the first full-height post with a second, shorter post sometimes installed between the anchor and the first post, creating an unyielding ramp for end-on or near end-on hits). Modified versions of this anchor, which eliminated all intermediate posts and weakened the attachment to the first full-height post and several adjacent ones, were developed in an attempt to overcome the rollover problem. Two primary schemes were used to weaken the connection: use of smaller diameter post bolts in the first several posts, or a design in which the w-beam railing was nested against w-beam back up plates bolted to the first few posts and held in place with malleable

steel-strap clips over the rail and back up plates.

(b) Although these modifications are considered an improvement over the earlier rigid design, full scale testing revealed two major shortcomings. First, the weakened terminals absorbed very little energy, allowing the impacting vehicle to travel significant distances beyond or on top of the guardrail. Second, although rollover was avoided in testing 1022-kg (2250-pound) cars on level, firm terrain, the roll angle of several vehicles was relatively high, making rollover far more likely in high speed impacts in the field where the area beyond a guardrail is oftentimes steeply sloped and irregular. None of the modified designs passed the 818-kg (1800-pound) vehicle tests.

(c) Even the Controlled Releasing Terminal (CRT), a turned-down design that is still considered acceptable for use, performed only marginally with an 818-kg (1800-pound) car. When this test vehicle was offset 381 mm (15 inches) toward the road in a 97 kp/h (60 mph) end-on crash, it overturned on the roadway; when offset the same distance away from the road, it travelled on top of the rail approximately 38 m (125 feet) before stopping and incurred significant underbody damage as it slid over the steel posts.

(d) Thus, the primary negative characteristics of turned-down terminals remain their potential for causing rollovers, and for trapping impacting vehicles on top of the rail and leading them into shielded hazards or launching them into hazards located beyond and in back of the terminal. The potential for the second occurrence may be reduced somewhat by flaring the terminal away from the roadway.

(e) Based on observed crash test performance and reported field experience, the FHWA has prohibited the use of turned-down w-beam terminals within the designated clear zone on high-speed, high-volume roads and has defined such roads as any with operating speeds of 80 kp/h (50 mph) and above and with traffic volumes in excess of 6,000 vehicles per day.

The ADT value should be considered a general guideline and may be adjusted as appropriate for local conditions, but the continued use of turned-downs under any high speed condition is discouraged. Turned-down terminals remain appropriate for use on trailing ends of traffic barriers on divided highways and in other locations where end-on, high speed accidents are unlikely. On low speed facilities where the severity of most impacts is expected to be low, they may be used at the discretion of the responsible highway agency.

(f) The FHWA prohibition on turned-down terminals has not been extended to use with weak-post w-beam systems, not because of demonstrated crashworthiness, but rather because alternatives to the turned-down end have not been crash-tested for use with weak-post w-beam systems.

(2) Breakaway Cable Terminal

(a) The Breakaway Cable Terminal (BCT) was developed to eliminate the vaulting/rollover problem inherent with a turned-down anchor. The BCT is a full-height, flared w-beam terminal with an integral cable anchorage. The two end posts are designed to fracture when struck head-on, allowing a vehicle safe penetration behind the barrier. For downstream hits, tension in the rail element is transferred to the base of the end post via the cable and an impacting vehicle is redirected. When originally tested with 2045 kg (4500-pound) vehicles at 97 km/h (60 mph) and 1022-kg (2250-pound) vehicles at 65 km/h (40 mph), the BCT functioned adequately. When it was later tested under the NCHRP Report 230 with an 818-kg (1800-pound) vehicle at 97 km/h (60 mph), it proved too stiff in end-on impacts. Another concern was unsatisfactory performance with BCT's that were not installed with the specified 1219-mm (4-foot) parabolic flare. Several instances of passenger compartment intrusion by the w-beam rail have been reported, many of which occurred on improperly flared installations and/or as a result of side-on impacts into the terminal end. A third concern with BCT performance is related to site conditions. Since the BCT is designed

to allow controlled penetration, the area immediately beyond the terminal should be traversable to minimize the likelihood of vehicle rollover and to eliminate subsequent fixed object impacts.

(b) Thus, to attain the best performance possible, the BCT must be installed with the correct 1219-mm (4-foot) parabolic flare, the area in advance of and immediately beyond the terminal must be essentially flat, and a reasonably clear, traversable run-out area must be provided. However, even under these conditions the BCT may be too stiff for small cars and can still penetrate impacting vehicles if struck directly in line with the first section of the w-beam. The use of diaphragms in the end section (specified in the original BCT design and still used by some highway agencies) may reduce the likelihood of spearing.

(c) Several State highway agencies use the BCT in conjunction with strong steel post w-beam systems. While most use, nominal, 203-mm by 152-mm (8-inch by 6-inch) timbers for the two breakaway posts, some use the steel tube slip-base post design from NCHRP Research Results Digest 84. In one crash test with an 818-kg (1800-pound) car the second post did not release properly and the w-beam rail hinged at the post and penetrated the passenger compartment. In another test, an 818-kg (1800-pound) car impacting at only 64 km/h (40 mph) was stopped in 1372 mm (4.5 feet) and experienced unacceptably high decelerations. In general, wooden breakaway posts set in steel tubes perform better, have no torque requirement, and are easier to install and repair than either steel slip-base posts or timber posts set in concrete.

(d) It has also become evident through research and development of the Eccentric Loader BCT and the Modified Eccentric Loader Terminal (MELT) that, unless additional posts in the BCT are weakened, deceleration levels of an 818-kg (1800-pound) car following a high-speed, end-on hit are likely to exceed NCHRP 230 maximum values whether the non-breakaway posts are timber or steel.

(e) Because of the large number of BCT's that have been installed and current awareness of their limitations, several research efforts have been directed at modifications to existing BCT's. Weakening posts 3, 4, and 5 by drilling holes through the 152-mm (6-inch) dimension resulted in acceptable decelerations in two full-scale tests of the wood post system, but the kinked w-beam rail element penetrated or significantly deformed the passenger compartment in both cases. If additional testing is done, the results will be distributed as they become available. In the meantime, State highway agencies must remain aware of the hazard created by improper BCT location and/or installation and the possibility that an acceptable installation may not perform satisfactorily if an errant motorist strikes the end in line with the rail element, as sometimes happens when the driver attempts to return to the roadway after a roadside encroachment. Furthermore, current vehicle designs are such that side impacts into the BCT may result in severe passenger compartment intrusion. This is true in general of all full-height stand-up terminals.

(3) Eccentric Loader BCT

(a) As a result of reported field experience and observed crash test results, the Eccentric Loader BCT was developed to improve the performance of the original BCT and specifically to accommodate small car end-on impacts. Four significant changes distinguish the Eccentric Loader from the original BCT: a structural steel nose inside a vertical section of corrugated steel pipe; elimination of all rail-to-post bolts at posts 2 through 6; the use of weakened wood posts at posts 3, 4, 5 and 6; and the addition of a steel strut between posts 1 and 2.

(b) The first of these modifications, the nose piece, has three essential functions:

1 For end-on impacts, together with the corrugated steel pipe, it spreads the

resisting load of the w-beam rail element over a larger area of the impacting vehicle and prevents the end of the rail element from spearing the car, although significant occupant compartment deformation is likely in side-on impacts;

2 It ensures that the first post breaks and releases the anchor cable before any longitudinal load can develop in the w-beam rail element;

3 It induces a moment at the end of the w-beam, reducing the force needed to overcome its column strength, thus facilitating desired buckling.

(c) The second change was the elimination of the rail-to-post bolts, which reduces the column strength of the w-beam, allowing it to bow away from the posts and to form hinges outside the car's path in an end-on hit, allowing safe penetration behind the rail.

(d) The third major design change was the weakening of posts 3 through 6. In earlier tests, both with the original BCT and with the Eccentric Loader, vehicle contact with the third and subsequent posts resulted in high decelerations and often induced rollover. To minimize this problem, these standard wood posts were replaced by posts with holes drilled at and below the groundline. Because these holes make the posts weaker, the spacings are reduced from the standard wood post BCT layout. The addition of a blockout on the second post further increases the curvature near the end of the rail, thereby further reducing the w-beam column strength.

(e) The final change from the original BCT is the addition of a steel strut connecting posts 1 and 2 at the groundline. The removal of rail-to-post bolts in the terminal puts more load on the anchor cable in downstream hits, and the strut ties the first two posts together to resist the increased cable load.

(f) Failure to follow the recommended details of the Eccentric Loader BCT may result in unsatisfactory field performance. It is particularly

important that the grading around and in front of the terminal be essentially level. A maximum 15:1 cross-slope is recommended; a slope steeper than 10:1 should not be permitted. Like the original BCT, the Eccentric Loader BCT is designed to be penetrated. Therefore, the area behind the rail must be reasonably traversable and obstacle-free. A minimum run-out path of 22.5 m (75 feet) is recommended.

(g) The Eccentric Loader BCT was tested in two configurations: a 1219-mm (4-foot) parabolic flare, and a 457-mm (1.5-foot) flare for use at sites where a full flare could not be attained. However, the latter design performed marginally when hit end-on by both the 818-kg (1800-pound) and 2045-kg (4500-pound) cars, imparting a high roll angle to both vehicles on level terrain.

(4) Modified Eccentric Loader Terminal (MELT). Although the Eccentric Loader successfully passed the NCHRP 230 acceptance tests and is demonstrably softer in end-on hits than the BCT, it has not been widely used. In an attempt to simplify its design and to increase its use in the field, the Eccentric Loader was tested with a standard BCT end section with bolt-in 2.67-mm (0.105-inch or 12-gage) thick base metal, steel diaphragms. Except for the nose section and its attachment to the rail end, the MELT is identical to the Eccentric Loader BCT. Two tests were run on a MELT with a 1219 mm (4-foot) parabolic flare. These were the 818-kg (1800-pound) end-on test and the 2045-kg (4500-pound) length-of-need test. Based on the results of these tests and the earlier Eccentric Loader acceptance test series, the MELT is considered operational. Since the MELT was not tested with a 457-mm (1.5-foot) flare and the Eccentric Loader BCT with that offset was marginal, the MELT should only be used with the standard 1219-mm (4-foot) parabolic flare.

(5) W-Beam Guardrail Anchored in a Backslope. Where a roadway is in a cut section, it is sometimes possible to carry the end of a W-beam guardrail away from the roadway directly into the backslope. Anchoring a guardrail end in a backslope eliminates the spearing potential, provides necessary anchorage for the w-beam rail, and blocks access to the area immediately behind the barrier if appropriate design and installation principles are followed.

(a) One of the important principles to consider is the need to design an anchor that is capable of developing the tensile strength of the w-beam so the rail will remain a ribbon for redirecting impacting vehicles. Thus, the anchor used should be capable of developing at least 222.3 kN (50 kips), which is the approximate strength of the standard BCT cable anchor. In practice, a buried 610-mm (2-foot) wide by 910-mm (3-foot) long by 610-mm (2-foot) deep concrete block has proven adequate. It should be set a minimum of 152 mm (6 inches) into the backslope to lessen the possibility that the terminal will be exposed by erosion and snag an impacting vehicle.

(b) Other important design considerations include selecting an appropriate flare rate, maintaining the full design height of the guardrail above the edge of the travelled way, and providing proper drainage and approach terrain details. The flare rate for strong post w-beam guardrail should not exceed the recommended values in Table 5-5 of the 1989 AASHTO Roadside Design Guide until the guardrail crosses the foreslope/backslope intercept. At that point, it can be flared as sharply as 8:1 to extend it to the backslope. If the roadway has significant superelevation, the flare rate, the height and the location of the barrier may need to be adjusted for optimal performance.

(c) The conceptual design shown on Attachment 3 in FHWA Technical Advisory T 5040.25, dated January 7, 1986, did not perform satisfactorily when tested with a 2045-kg (4500-pound) car at 97 km/h (60 mph) and a 25 degree departure angle from the roadway and is no longer considered acceptable. The decreasing rail height (with respect to the roadway grade) and the 10:1 approach slope allowed the impacting vehicle to strike the top of the rail, which tore, allowing the vehicle to penetrate the barrier and overturn. To achieve satisfactory results, the foreslope in front of the guardrail should be nearly level. However, a second test confirmed that a 10:1 maximum slope can be used provided the height of the barrier remains constant relative to the roadway grade until it crosses the ditch bottom. In this second test, the

addition of a w-beam rub rail was necessary because the opening beneath the primary rail exceeded approximately 457 mm (18 inches). This design was successfully tested with a 2045-kg (4500-pound) car at 97 km/h (60 mph) and a 25 degree departure angle. A constant 13:1 flare rate was used in this successful test. This design layout required 41.8 m (137 feet) of w-beam rail in advance of the length of need to reach the anchorage in the backslope. Two addit ional tests were conducted where the only significant change was the use of a steeper flare rate into the backslope. For these tests, a 19-m (62.5-foot) parabolic flare with the end 3.65 m (12 feet) beyond the length of need offset was installed. Both tests failed, confirming the need for a flatter flare rate for high speed, high angle impacts.

(d) A third test was run on an installation with a 19-m (62.5-foot) parabolic flare into the backslope but without a rub rail and at a constant height above the local grade. This resulted in an installation that sloped down gradually as it followed the 10:1 shoulder slope. A 2045-kg (4500-pound) car hitting the rail at 97 km/h (60 mph) and a 15 degree departure angle was redirected. This reduced design may be appropriate where impact conditions are likely to be less than 97 km/h (60 mph) and/or at a departure angle of 15 degrees or less.

(e) A slope transition zone will often be needed between the standard ditch cross-section and the flatter foreslope in front of the guardrail. The resulting approach slope at the back of the ditch (parallel to traffic) should be no steeper than 20:1 relative to the roadway grade. When this approach treatment interferes with drainage, a grated drop inlet and outlet pipe may be required to carry the drainage under the guardrail. If so, the drop inlet should have a grated opening and be flush with the ground.

(f) Depending on the steepness of the cut slope, a vehicle may ride up the slope some distance before redirection begins. Thus, it is possible for a vehicle which leaves the roadway in advance of the terminal to go around or over it.

If penetration is not acceptable, a longer run of barrier may be needed to create a recovery area between the terminal and the shielded hazard.

c. Proprietary Terminals - terminals in this category are generally patented and can only be licensed for manufacture or distribution through one source.

(1) As indicated in 23 CFR 635.411, products in this category are eligible for Federal funding provided:

(a) they are purchased through competitive bidding with equally suitable unpatented products;

(b) a State highway agency certifies that a specific product is essential for synchronization with existing highway facilities, or that no equally suitable alternate exists;

(c) a proprietary product is installed as an experimental feature for the purpose of in-service evaluation;

(d) such usage has been approved by FHWA's Division Administrator as being in the public interest.

(2) Currently, the principal proprietary terminals appropriate for use with w-beam/thrie-beam guardrails are the Safety End Treatment Terminal (SENTRE); the Crash-Cushion Attenuating Terminal (CAT); the BRAKEMASTER; and the ET-2000. A discussion of each follows:

(a) SENTRE

1 The SENTRE is manufactured by Energy Absorption Systems, Inc., of Chicago, Illinois, and is designed for installation on the end of a w-beam or thrie-beam guardrail. The SENTRE unit consists of interlocking, telescoping thrie-beam fender panels attached to steel wide flange, slip-base posts, plus sand containers and a ground-level redirecting cable. A tension cable is required to anchor the guardrail at the point of connection to the SENTRE. Detailed design, construction and maintenance information is available from the manufacturer.

5-17

2 The SENTRE can be installed parallel to the roadway or with a 1219-mm (4-foot offset). Although a relatively flat slope behind the terminal is preferred, a test with a 1.5:1 foreslope was successful. The redirecting cable prevents end-on impacting vehicles from striking the hard point at the beginning of the guardrail by guiding the vehicles along the cable behind the rail. The sand containers on the end posts dissipate some of the crash energy in the same manner as sand barrel crash cushions do. As with all slip-base devices, bolt torque is critical for proper impact performance and the manufacturer's specifications must be followed for construction and maintenance.

(b) CAT

1 The CAT is manufactured and distributed by Syro Steel Company, Girard, Ohio. It has evolved from the earlier Vehicle Attenuating Terminal (VAT) and the Combination Attenuating Terminal (also called CAT). The latest version of the CAT is the only one currently produced. It replaces both the VAT and the earlier CATs. It may be used both as a crash cushion and as a terminal for w-beam guardrail.

2 The CAT consists of slotted 3.43-mm (0.135-inch or 10-gage) thick base metal, and 2.67-mm (0.105-inch or 12-gage) thick base metal, w-beam rails that telescope in end-on impacts to dissipate crash energy. For side hits, the unit redirects vehicles in the same manner as standard w-beam guard rail. It is designed for parallel installation and, like all terminals, functions best when on terrain that allows a vehicle to strike it with little or no roll induced. Detailed design, construction and maintenance information is available from the manufacturer.

(c) BRAKEMASTER - the BRAKEMASTER is manufactured by Energy Absorption Systems, Inc., of Chicago, Illinois and is intended for use as a crash cushion and as a terminal for w-beam guardrail. This terminal consists primarily of an anchor

assembly, a cable/brake assembly, and w-beam panels. It redirects vehicles during side impacts and telescopes in end-on hits, with the cable/brake assembly absorbing much of the crash energy. Detailed information on design, installation and maintenance is available from the manufacturer.

(d) ET-2000 - the ET-2000 is manufactured by Syro Steel Company of Girard, Ohio and is designed to fit on the end of a w-beam guardrail. The guardrail is anchored in a manner similar to the standard breakaway cable terminal (BCT), and redirects side-impacting vehicles. For an end-on hit, the ET-2000 essentially flattens and bends the w-beam shape, absorbing crash energy and directing the flattened w-beam away from an impacting vehicle. It is intended for use on the end of a w-beam installation with no flare. Detailed information can be obtained from the manufacturer. As with all terminals, where penetration behind and beyond the barrier can be expected, a traversable area is needed to aid post-crash vehicle stability and to prevent impact into fixed object hazards.

d. Departure-end Terminals - on multi-lane divided highways and one-way facilities, the downstream or departure end of a traffic barrier does not have to be crashworthy, but a structurally adequate anchorage is required to keep the rail in tension when it is struck near the trailing end. Some highway agencies add extra rail, often 15 m (approximately 50 feet), to the length needed to shield the hazard fully rather than install an anchor. This practice is not recommended because it adds unnecessary rail to the roadside which is not likely to perform properly if struck, increasing accident costs to motorists and installation and repair costs to the highway agencies. In addition, to create an effective anchor, rectangular washers should be used with the post bolts in this last 15 m (50 feet) of rail, a practice that has been discouraged for several years. In locations where a barrier end cannot be hit head-on, the best terminal to use is normally the simplest and least expensive. A turned-down terminal anchored in concrete or a cable-deadman anchorage system meet these two requirements. Where space permits, a

downstream terminal should be installed with a slight flare to reduce the potential for snagging on the anchor system. However, flare rates sharper than approximately 8:1 should be avoided to minimize barrier deflection and to decrease the likelihood of pocketing a vehicle which strikes the rail near the departure end.

5. RECOMMENDATIONS

a. State highway agencies should be encouraged to review existing policies for selecting guardrail terminals, including proprietary devices, and to revise them as needed to ensure consistent use of the most cost effective terminal in each instance. States should also develop and implement a continuing accident review process to monitor field performance of existing barriers, terminals, and other roadside features.

b. FHWA field offices should continue to monitor State highway agencies' adherence to current policy regarding the use of turned-down terminals. Turned-down terminals used with weak-post w-beam systems must be designed insofar as practical to preclude high-speed vehicles from being launched into hazards behind the terminal or from being captured and guided on top of the rail to fixed-object hazards or steep slopes. Normally, this will require significantly longer or flared guardrail installations and/or flared terminals.

c. State highway agencies currently using the BCT should be aware of its limitations and encouraged to monitor their installations closely to determine if they are performing satisfactorily. If not, changes in the State's terminal selection, design, construction or maintenance procedures may be warranted. These agencies should also keep appraised of potential modifications to existing BCTs that could significantly improve their performance and to ensure that new BCT installations fully meet the recommendations contained in this Technical Advisory.

d. NCHRP Report 350, which is to be published in early 1993, will define three test levels for end treatments and crash cushions. All end treatments previously discussed are expected to fall into one of these three levels. If NCHRP 350 is subsequently adopted by the

FHWA, State highway agencies reviewing their policies may elect to incorporate the variable test level concept into their terminal selection procedures.

Thomas O. Willett
Director, Office of
Engineering

5-2

Kansas

Our daughter, Judy Bird, died last December on a Kansas highway in a tragic accident which we believe could have been prevented. When the car she was riding in drifted off the road and hit a guardrail positioned 38 inches off the ground, its sharp, slightly-curved end cut through the passenger compartment where Judy was riding, killing her instantly.

We believe the design and installation of the guardrail, intended to save lives, turned a driving indiscretion into death. After the December 19, 1992 accident, the State of Kansas installed another guardrail identical to the one which took Judy's life. That guardrail, positioned 38 inches off the ground, may one day take the life of someone you love.

As Judy's parents, we urge you to write your elected officials, asking them to correct Kansas' guardrails and shoulders. Voice your concern and show your support by tying yellow ribbons around every dangerous guardrail in Kansas.

If you want to join us in our fight to make Kansas highways safer, you may write the Birds at: Guardrails, P.O. Box 20, Grandview, MO 64030. Thank you.

Dear

On December 19, 1992, a guardrail on a Kansas highway took the life of a 20-year-old Baylor student on her way home for the Christmas holiday. Repeating a drive she and her former Baylor roommate had made many times, Judy Bird was a passenger in the front seat. The driver fumbled for a snack on the backseat floor, and the car drifted off the road. The car proceeded 120 feet in grass and then struck a guardrail.

This guardrail had a sharp, slightly-turned edge and was positioned 38 inches off the ground--the same height as the passengers of the car. Upon impact, the guardrail cut through the passenger compartment, killing Judy.

Installed by the State of Kansas to save lives, this guardrail, ironically, turned a driving indiscretion into death. After the accident the State of Kansas could have replaced the guardrail with one which had been tied down, lowered or fitted with a blunt, boxing-glove shaped end. The State of Kansas, instead, installed another guardrail identical to the one which took Judy's life.

I am asking you, an elected official sworn to serve the public, to ensure that the State of Kansas will replace all unsafe guardrails. Also, to see that Kansas highways are equipped with shoulder grooves to alert drivers when a vehicle's wheels leave the road.

Thank you for your assistance in correcting Kansas' guardrails and shoulders.

Sincerely yours,

Gaylen D. Bird
Linda Bird
Cynthia L. Bird
B— H. B—

5-23

I want to begin by taking the opportunity to thank you for allowing me to speak with you today. This topic is very personal to me and has had a large impact on my life, and the life of my family and friends. I have only one regret. I regret that I didn't have the opportunity to speak with you seven years ago, at the time of my accident. If I would have had the resources, and could have facilitated a change in the construction of guard rails at that time, then perhaps Judy Bird would still be here today. Unfortunately, my accident with a guard rail left me unable to provide for myself for the following two years and I spent the majority of that time trying to relearn how to walk. However, I do feel fortunate to be here today to speak with you about my experiences and I hope that you will consider the legislation necessary to prevent further guard rail accidents so that others won't have to suffer needlessly.

On August 15th, 1986, I had the world in the palm of my hands. I was a graduate student at Pittsburg State University, making good grades, and progressing through my program quickly. That morning I was traveling on Highway 69 south of Pittsburg, Kansas on the way to Tulsa, Oklahoma to pick up my fiancé, who is now my wife, at the airport. I had no idea how much my life was to change that day. I approached the intersection at Highway 103 and noticed a car approaching on the right hand side. I assumed that this car would stop at the clearly marked stop sign. However, the driver, an elderly gentleman, instead misjudged the intersection and stopped in the middle of Highway 69 blocking both lanes. I had to make a quick decision. If I didn't swerve, I would hit him squarely on the driver's side. I chose to swerve to the right. My car slid, and the rear quarter panels of our car's met, leaving the other driver unhurt. My car continued to slide down the highway until it abruptly came to a stop as it was impaled by a guard rail that came through the passenger's door. This guard rail was made exactly the same as the guard rail that killed Judy Bird. It was positioned 38 inches off the ground and had a sharp, slightly-curved end that literally cut my car in half. I think that these pictures, taken by the Kansas Highway Patrol, clearly illustrate the danger of the construction of this type of guard rail.

Being that I am a tall person, the driver's seat was all the way back so that the guard rail hit only my legs. And just by fate, my best friend, that was supposed to ride with me that morning, didn't show up because he had overslept. It took quite a while after the accident for the emergency personnel to pry me out of the what used to be my car. I can still remember the unbearable pain and the sight of the guard rail pinning my legs inside of the car. I suffered many serious injuries to my lower extremities, some of which remain permanent. My right femur was crushed and my left knee was severely injured with irreversible nerve damage resulting in a paralyzed left ankle. Even so, I was lucky. Because my family was so persistent in finding the best medical care possible, I was transferred from a hospital that wanted to amputate my legs to one that was able to save them. After a week in a coma, two and a half months in the hospital, and five major surgeries, I was able to start the lengthy process of relearning to walk. I still have permanent damage including a partially paralyzed left ankle and constant pain in my right hip. This accident caused unbelievable stress to me, my family, and my friends, delayed my career, and destroyed my credit rating.

I'm not an engineer, but I think that these pictures speak for themselves. If this guard rail would have been tied down, I would not have suffered these types of injuries. In fact, I may have been able to walk away from it. With the love and support of my family and friends, I was able to get through this nightmare and put it all behind me, with one exception. I still find it hard to believe that, just as in the case of Judy Bird, the State of Kansas chose to repair the damaged guard rail with one of identical design to the one that caused my injuries. Would it not have taken the same amount of effort to tie this guard rail down and make it safe? I am urging you, please consider the legislation necessary to make all Kansas guard rails safe. Doing nothing to advocate for change about this issue, as I did seven years ago, will only lead to more pain, loss, and suffering. Please act quickly, it may be a matter of life or death. Thank you.

H. Transp.
1/29/93
Att. 6

7

W.M. Lackey
11/29/93

GUARDRAIL CONVERSION CALCULATIONS

ASSUMPTIONS

1) From Maintenance Features Inventory Types of Guardrail

Steel Plate	=	3,674,777 Lin. Ft.
Cable	=	287,418 Lin. Ft.
Box Beam	=	13,008 Lin. Ft.
Double Steel	=	60,500 Lin. Ft.
Conc. Safety Barr.	=	252,400 Lin. Ft.
TOTAL	=	4,288,103 Lin. Ft.

2) Avg. Bid Prices (3rd Quarter 1993) (Statewide)

Removal (Steel Plate)	=	$ 2.66/Ft.
Removal (Cable)	=	$ 1.00/Ft.
Const. (Steel.Plate)	=	$20.66/Ft.
Conc. Safety Barrier	=	$36.64/Ft.

3) Assume: (All low/conservative as to cost)
+ 15% of System is BCT or equivalent
+ Avg. run = 250' long
+ Replace 100' avg. on good runs (flared)
+ Grading cost = 1/3 of guardrail cost
  Minimum grading = lengthens run
+ Replace both ends on 85% of Steel Plate
  less 12% multi-lane (one end)
+ State & City Connecting Link miles = 10,432 miles
+ Multi-lane = 1,267 miles
+ 5% Prliminary Engineering (Plans & Surveys)
+ 7% Construction Engineering (Contr. Admin - Materials)
  (Testing - Const. Surveys)

H. Transp.
11/29/93
Att. 7

COST ESTIMATES

Steel Plate:

3,674,777' (0.85) ÷ 250'/run = 12,494 runs
12,494 x (0.82) 2 Lane = 10,245 runs on 2 lane
2,249 runs on multi-lane
10,245 runs x 2 ends x 100' = 2,049,000'
2,249 runs x 1 end x 100' = 224,900'
Replace = 2,273,900'

Cost

Remove:	2,273,900' x $ 2.66 =	$ 6,048,574
Replace:	2,273,900' x $20.66 =	$46,978,774
	Sub Total =	$53,027,348
Grading (x 1/3)	=	$17,674,015
	Total =	$70,701,363

Cable:

Remove:	287,418' x $ 1.00 =	$ 287,418
Replace:	287,418' x $20.66 =	$ 5,938,056
	Sub Total =	$ 6,225,474
Grading (x 1/3)	=	$ 2,074,950
	Total =	$ 8,300,424

Box Beam:

Remove:	13,008' x $ 2.66 =	$ 34,601
Replace w/Concrete Safety Barrier:		
	13,008' x $36.64 =	$ 476,613
	Total =	$ 511,214

WITHOUT BASE WORK

Double Steel:

Remove:	60,500' x $ 2.66 =	$ 160,930
Replace w/CSB:	60,500'x $36.64 =	$ 2,216,720
	Total =	$ 2,377,650

WITHOUT BASE WORK

Total Costs

Steel Plate	= $70,701,363
Cable	= $ 8,300,424
Box Beam	= $ 511,214
Double Steel	= $ 2,377,650
Sub Total	= $81,890,651
5% Preliminary Engr.	= $ 4,094,532
7 1/2% Construction Engr.	= $ 6,141,799
Total	= $92,126,982

NO INFLATION BUILT IN

8

MEMORANDUM

Kansas Legislative Research Department

300 S.W. 10th Avenue
Room 545-N – Statehouse
Topeka, Kansas 66612-1504
Telephone (913) 296-3181 FAX (913) 296-3824

November 16, 1993

To: House Transportation Committee

From: Hank Avila, Research Analyst

Re: Traffic Control Issues

The purpose of this interim topic is to review traffic control matters, including left turn on a red signal, and other recurring traffic control issues.

1993 H.B. 2445

This interim study is the result of discussions on H.B. 2445 during the 1993 Legislative Session. The bill was requested by the Kansas Highway Patrol and eliminates a signing requirement to permit left turns at red traffic signals, from a one-way street onto a one-way street. Current law permits a left turn on red at the intersection of one way streets if local authorities erect signs permitting such movements. Current law also permits right turns at a red traffic signal unless a prohibitive sign is erected.

Hearings were conducted on this issue on February 23, 1993. The bill remains in the House Transportation Committee.

Other Traffic Control Issues

In a article entitled "Motorist Compliance With Standard Traffic Control Devices" which appeared in the March, 1990 edition of *Public Roads* magazine, Martin T. Pietrucha, P.E., Richard L. Knoblauch, Kenneth S. Opiela, PhD., and Kristy Crigler explore the problem of motorist noncompliance with traffic control devices. These authors assert that motorist disregard of traffic control devices has become a concern of the highway safety community which seriously undermines the safety and efficiency of the nation's streets and highways.

Common forms of noncompliance include:

1. speeding;
2. not coming to a full stop at STOP signs;
3. failing to yield right-of-way to pedestrian;
4. ignoring active railroad crossing devices;
5. making illegal turns;
6. using lanes improperly;
7. violating traffic signal indications;
8. driving too fast through work zones;
9. encroaching on centerlines; and
10. violating passing zone restrictions.

The authors reviewed the literature pertaining to this subject and arrived at the following conclusions:

1. Driver behavior is a function of the need to adapt to traffic conditions and meet the psychodynamic requirements of the driver. Although certain personality traits may lead to noncompliance with traffic controls, driver groups with those characteristics do no necessarily have more accidents.

2. Drivers observe or ignore traffic controls based on the control's perceived reasonableness and the perceived chance of being caught violating the control.

3. Compliance with speed limits has been studied extensively over the years. If speed limits are reasonable, they seem to be accepted by drivers. Although enforcement efforts result in significant increases in compliance, the effect is temporary.

4. Studies dating back to the 1930s indicate that over 50 percent of motorists fail to come voluntarily to a complete stop at STOP signs. Data from these studies, however, are not sufficiently consistent among studies to determine if there has been a significant change in compliance over the years.

5. The relatively recent implementation of right-turn-on red legislation has led to several compliance studies. These studies have found consistent levels of noncompliance; however, traffic conflicts rarely result from this form of noncompliance.

6. Red-signal violators have been similarly quantified and associated traffic conflicts were found to be rare.

7. Considerable research has focused on motorist compliance at railroad-highway grade crossings. Studies indicate that motorists often question the credibility of the controls.

8. Studies of controls such as protected-permissive left turn signalization (a traffic signal display of a green arrow followed by a green ball which permits turns upon yielding to traffic) note good compliance when the motoring public understands the controls.

9. Selective enforcement, remedial driving training, and driver point system are effective in promoting motorist compliance.

The authors conclude that the ultimate purpose of research is to provide information or tools for practitioners to use to maintain a safe and efficient roadway network. Their recommendations are based on the view that traffic control needs should be based on multidisciplined views involving engineers, law enforcement officials, and persons who educate drivers.

Engineers. Engineers should be cognizant of changes in the traffic system, traffic volume, traffic characteristics, and the conditions of the traffic control devices. In addition, traffic control devices should be applied consistently to ensure they command the public's respect. Finally, engineers should compile noncompliance data to develop thresholds for determining when non-compliance rates are above acceptable limits.

Enforcement. Law enforcement officials are urged to target high-accident locations, set uniform enforcement policies, and compile data for monitoring compliance levels and accidents.

Education. Drivers should be educated about the reasons for traffic control devices to continually reinforce motorist compliance. To ensure that the motoring public maintains a respect for traffic control devices, traffic professionals must use them prudently.

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Summary of Testimony

Before the
House Transportation Committee

November 29, 1993

House Bill 2445

Presented by the Kansas Highway Patrol
(Lieutenant Samuel Grant)

Appeared in Support

Mr. Chairman, members of the Committee, I appear before you today on behalf of Colonel Lonnie McCollum in support of House Bill 2445.

This bill, if enacted, would eliminate a signing requirement to permit left turns at red traffic signals, from a one-way street onto a one-way street. K.S.A. 8-1508(c)(3) currently permits a left turn on red at the intersection of one way streets if local authorities erect signs permitting such movements. The same statute permits right turns at a red traffic signal unless a prohibitive sign is erected.

Signing requirements governing turns at red traffic signals should be the same for left turns from a one-way street onto a one-way street as exists for right turns.

The new language in this bill makes the signing requirements regarding **all** turns at red traffic signals identical.

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MEMORANDUM

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Kansas Legislative Research Department

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Room 545-N – Statehouse
Topeka, Kansas 66612-1504
Telephone (913) 296-3181 FAX (913) 296-3824

November 16, 1993

To: House Transportation Committee

From: Hank Avila, Research Analyst

Re: Interim Topic Pertaining to Highway Noise Abatement

The Committee's study of highway traffic noise abatement arises from 1993 H.B. 2229. The bill would establish a state highway traffic noise abatement program. The bill would direct the Secretary of Transportation to conduct and analyze noise studies and noise abatement measures, including traffic management and design and construction measures. The bill would permit the State Highway Fund to be used for noise abatement measures where:

1. traffic noise impact has been identified;

2. the noise abatement measures would reduce the traffic noise impact; and

3. the overall noise abatement benefits are determined to outweigh the overall adverse social, economic, and environmental effects and costs of the noise abatement measures.

Background

The Federal Highway Administration (FHWA) procedures for abatement of highway traffic noise and construction noise are found in 23 CFR Part 772 and were developed as a result of the Federal-Aid Highway Act of 1970. The regulations were promulgated :

> To provide procedures for noise studies and noise abatement measures to help protect the public health and welfare, to supply noise abatement criteria, and to establish requirements for information to be given to local officials for use in the planning and design of highways approved pursuant to Title 23, United States Code (U.S.C.).

Under the federal regulations, there are two types of noise abatement projects. A Type I project is defined as a proposed federal or federal-aid highway project for the construction of a new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes. A Type II project is defined as a proposed federal or federal-aid highway project for noise abatement on an existing.

For Type I construction projects, a state must determine if there will be traffic noise impacts in areas adjacent to federally-aided highways when:

1. a project is proposed for the construction of a highway on new location;

2. a project physically alters an existing highway significantly changing either the horizontal or vertical alignment; or

3. a project increases the number of through-traffic lanes.

If a state identifies potential impacts, its must consider noise abatement measures and implement them where reasonable and feasible.

Feasibility refers primarily to engineering considerations (*i.e.*, can a barrier be built given the topography of the location, can a substantial noise reduction be achieved given certain access, drainage, safety, or maintenance requirements, or, are other noise sources present in the area.) According to the FHWA, a determination of reasonableness for abatement measures should consider the following:

1. noise abatement benefits such as the amount of noise reduction provided and the number of people protected;

2. cost of the abatement;

3. opinions of the impacted residents concerning matters such as barrier height, the material used for the barrier etc.;

4. absolute noise levels, which would include such factors as the existing noise levels, future traffic noise levels for the expanded facility, and the context and intensity of noise levels;

5. change in noise levels (*i.e.*, the difference between the future traffic noise levels and the existing noise levels);

6. expected development along the existing highway; and

7. environmental impacts during highway construction.

As noted, under Type II projects there is no highway construction. Noise abatement is considered on an existing highway such I-435. According the FHWA, only sixteen states have done type II abatements. The FHWA points out that these undertakings are costly to highway programs, typically $1 million per linear mile. There is no separate funding under federal law for the

construction of noise barriers. Thus, noise barriers have to compete with other major highway funding needs such as replacement of bridges the reconstruction of deteriorated pavements. In addition, other highway program elements such as safety improvements or capacity increases to accommodate growth and development, are of a higher priority.

FHWA allows, but does not require, the use of federal funds to provide noise abatement along existing highways (Type II projects). The decision to implement this type of abatement is a voluntary one made by the state. Noise abatement measures for development which occurs after highway construction are not normally approved for federal funding unless local authorities have taken measures to exercise land use control over the remaining undeveloped lands adjacent to highways in the local jurisdiction to prevent further development of incompatible activities.

KANSAS DEPARTMENT OF TRANSPORTATION

Policy Statement on

Highway Noise Abatement

Effective
March 18, 1993

PREFACE

Traffic noise impacts vary with highway location relative to human activities and traffic characteristics. The Kansas Department of Transportation (KDOT) evaluates traffic noise in accordance with federal regulations and as impacts become more severe, noise mitigation measures are investigated. In order to address these issues in a consistent and objective manner, the following policy and procedure statements are provided.

Authority

The Federal Highway Administration's *Procedures for Abatement of Highway Traffic Noise and Construction Noise* is found in 23 CFR 772. The KDOT noise policy is based upon this FHWA regulation, and is deemed to be consistent with it.

1) Traffic Noise Reduction Responsibility

Traffic noise impacts develop in different ways. When new roadways are constructed through established neighborhoods, impacts are recognized immediately after the new facility is opened to traffic. However, when new construction takes place in rural or undeveloped areas, impacts develop as residents and businesses are constructed along the new roadway.

In view of these circumstances, KDOT endorses a "systems" approach to traffic noise reduction that is sanctioned by the Federal Highway Administration (FHWA) and the American Association of State Highway and Transportation Officials (AASHTO). The systems approach is a program of shared responsibility whereby the control of undesirable effects of traffic generated noise requires a three-part approach as follows: (1) Reduction of noise at its source, ie. the motor vehicle; (2) proper land uses and developments with appropriate building standards adjacent to high traffic volume roadways; and (3) diminishing traffic noise that reaches noise-sensitive areas by incorporating noise reduction measures into highway design. The first component relies on private industry; the second, on local governments; and the third, on Federal and state agencies responsible for highway location and design. To use only one method to address traffic noise might be prohibitive in cost, but through a joint effort of those involved, an appropriate balance of cost and responsibility can be achieved. Policy and

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procedure stated in this document reflects this systems approach to traffic noise reduction.

2) Noise Prediction

All predictions of noise levels on KDOT highway projects will be made using the **KSTAM** version of STAMINA 2.0/OPTIMA, which is the FHWA Model (FHWA-RD-77-108) modified with reference energy mean emission levels developed specifically for vehicles in Kansas. KSTAM has been approved for use in Kansas by FHWA, effective August 9, 1991.

3) Noise Levels

a. Descriptor

Noise studies for KDOT projects will use L_{eq}, the equivalent sound level.

b. Existing Levels

L_{eq} values existing in a project corridor *before* construction will normally be determined through field measurements. However, in certain cases, these values can be obtained through execution of KSTAM.

c. Future Levels: *Without Barrier*

Post-construction L_{eq} values that **approach** or exceed the FHWA Noise Abatement Criteria (NAC) found in 23 CFR 772 are deemed to be sufficiently high to warrant abatement analysis. For Land Use Category B, which includes residences, the NAC is 67 dBA. An L_{eq} value of 65 dBA would approach the NAC. Therefore, when predicted exterior "no barrier" L_{eq} values at Land Use Category B sensitive receptors are 65 dBA or greater, abatement analysis is required.

In addition, impacts are deemed to occur when future predicted no barrier levels substantially exceed existing levels. KDOT has an agreement with FHWA that defines impacts. These definitions are:

0-5 dBA increase:	No impact
5-10 dBA increase:	Minor impact
10-15 dBA increase:	Moderate impact
15+ dBA increase:	Severe impact

When impacts are classified as moderate or severe, abatement analysis is required

on KDOT projects.

d. Future Levels: *With Barrier*

The goal for final exterior L_{eq} at each (Land Use Category B) receiver with a barrier in place is 65 dBA or less. This may not be attainable in all situations.

4) Barriers

a. Barrier Projects

KDOT will only construct noise barriers as part of highway construction or reconstruction projects. KDOT will not participate in the *Type II* program of retrofitting existing highways with noise barriers until Federal standards are established exclusively for Type II and other enhancement projects (See 23 CFR 772.5(i) and 772.7(b)).

b. Insertion Loss

Insertion loss is the difference in L_{eq} with and without the barrier (barrier minus no barrier level). The insertion loss goal for each impacted sensitive receptor is 5 dBA or more.

c. Location

In at-grade or fill situations, barriers should be built as close to the highway as possible. If necessary, barriers can be located on top of jersey-type barriers, and placed at the edge of shoulder, approximately (10-12 feet from traffic). If jersey-type barriers or methods of crash protection are not used, noise barriers should be outside the 30 foot clear zone.

When barriers are constructed at or near the shoulder line, consideration must be given to safety, drainage, and ice and snow removal.

In cut situations, barriers should be placed as close to the right-of-way line as possible. This will maximize noise reduction effects of the barrier. In all cases barriers should be constructed on KDOT right-of-way.

d. Height

For aesthetic and cost reasons, barriers should be tall enough to provide adequate noise reduction, and no taller. For KDOT projects, the maximum height of any barrier above the ground line will be 16 feet. Barriers taller than 16 feet would

probably result in negative visual impacts on the surrounding properties.

Also for aesthetic reasons, barrier height should be limited as follows: The distance from the barrier to any inhabited buildings should be at least four times the barrier height. For example, if the distance from the barrier to a row of protected houses is 44 feet, the maximum height of the barrier should be 11 feet.

e. Length

The OPTIMA program should be used to design barriers with the shortest length possible. Typically, barriers will need to extend beyond the last receiver by a distance four times the distance from the road to the barrier.

f. End Treatment

Abrupt endings of barriers should be avoided. Barrier heights should be tapered to the ground and vegetation may be used to soften the end appearance.

g. Access

Working space behind the barrier with provisions for access should be provided, or a maintenance agreements with other public bodies or private individuals should be made.

h. Materials

The principal issues involved in material selection are aesthetics, community desires, constructibililty, and maintenance. Normally, concrete and masonry based materials are the most suitable in addressing these issues. Wood barriers are a less expensive alternative, but must be carefully designed and monitored in terms of treatment and water content in order to minimize maintenance problems. Metal barriers are easily damaged, and are often not received positively regarding aesthetics. Vegetative screens do not produce meaningful noise reduction, due to a lack of material density.

i. Cost

Because a small number of people benefit from a relative large expenditure of funds, barriers, if constructed, must be determined to be reasonable, feasible, and *cost effective*. For KDOT projects cost effectiveness is defined as barrier cost per receiver at or below the national average guideline for barrier cost effectiveness. This guideline was determined to be $22,000 in 1991 dollars, based upon studies performed for KDOT.

When determining cost effectiveness of a potential barrier, each sensitive receptor receiving 5 or more dBA insertion loss is counted as one receiver, and each receiving 3-4 dBA insertion loss is counted as one half receiver.

The cost data in Table 1 should be used when computing the barrier cost per receiver. These data have been incorporated into the *NOISE* software library which contains KSTAM. It is the intent of KDOT to update the values in Table 1, as well as the $22,000 barrier cost per receiver national criterion, as needed.

It should be noted that the data in Table 1 are to be used in conjunction with the guideline for cost effectiveness. THEY ARE FOR COMPARISON PURPOSES ONLY. Actual barrier costs will vary.

It should also be noted that the comparison of proposed barrier costs using the guideline is to assist KDOT in making decisions about barrier feasibility. Any final decision on barrier construction will be based on a variety of factors.

Barrier Height Range in feet	Cost per linear foot in 1991 dollars			
	Berm	Concrete	Wood	Metal
01-05	29.75	64.28	1.15	17.07
05-10	48.88	117.47	57.24	83.11
10-15	70.86	183.95	134.23	165.67
15-20	94.35	250.41	211.21	248.23
20-25	117.48	316.89	252.94	330.77

TABLE 1 - OPTIMA Cost Data for Kansas in 1991 Dollars

j. Maintenance

The goal for all barriers constructed by KDOT is *minimum maintenance cost.* Each barrier design should be performed with this goal in mind.

k. Aesthetics

Successful barrier projects not only adequately reduce noise levels, but also receive positive response regarding appearance (aesthetics). In order to assure this positive response, care should be taken in selecting a color scheme and surface texture, and use of landscaping should be considered in design.

l. Documented Community Support

No barrier will be constructed by KDOT unless there is: a formal endorsement by appropriate local officials, and b documented support of at least 80 percent of the residents of all first and second row sensitive receptors.

m. Isolated Receivers

Barriers will not be constructed for individual residences or other isolated receivers.

5) Decision to Build or Not Build a Barrier

The decision on whether to build or not build a barrier is always a KDOT decision. Factors that influence that decision include:

1. Documented impacts (Section 3.c.)
2. Insertion loss of 5 dBA reasonably attainable (Sections 3.d., 4.b.)
3. Documented official community support (Section 4.l.)
4. Documented support of affected residents (Section 4.l.)
5. Cost effectiveness of barrier attainable (Section 4.i.)
6. Assurance of positive aesthetic impacts (Sections 4.f., k.)
7. Minimized impacts on maintenance operations (Section 4.j.)

In addition to these 7 factors, the following must also be considered:

1. *Other Noise Sources* - If significant non-highway noise sources exist in the project area, such as major rail lines or airports, noise barrier effectiveness will likely be compromised. Barriers will not be built when such a compromise is evident.

2. *Chronology of Development* - It is KDOT policy to fully inform local officials about noise levels resulting from its projects. In spite of this policy, there is too often still noise sensitive development that occurs in the proximity of these projects. KDOT does not want noise sensitive development to occur immediately adjacent to high volume, high noise level highways. This factor will be a consideration in the decision concerning barrier construction.

3. *Local Participation* - If a local jurisdiction wishes a noise barrier that is deemed not reasonable by KDOT, the barrier may be installed, **provided** the locality participates in the cost, including but not limited to preliminary engineering, construction, safety, and maintenance, and that KDOT's material, design, and

specifications are used.

Any barrier that is marginally cost effective may still be constructed **provided** the locality is willing to share in the funding through an appropriate partnership with KDOT.

6) Sensitive Receptors

Although all activities that have a noise abatement criteria (NAC) are reviewed, single family residences have the highest priority for limited highway construction funds.

Approved: March 23, 1993
Michael L. Johnston, Secretary
Kansas Department of Transportation

STATE OF KANSAS

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Michael L. Johnston
Secretary of Transportation

Joan Finney
Governor of Kansas

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TESTIMONY BEFORE
HOUSE TRANSPORTATION COMMITTEE

REGARDING
DRUG OFFENDER'S DRIVER'S LICENSE SUSPENSION

November 30, 1993

Mr. Chairman and Committee Members:

I appreciate the opportunity to appear before you today to provide testimony regarding the federal requirement for driver's license sanctions against drug offenders.

OVERVIEW.
Section 159 of the Department of Transportation and Related Agencies Appropriations Act for 1991, as amended, requires the withholding of certain federal-aid highway funds from states that do not enact and enforce legislation requiring the revocation or suspension of an individual's driver's license upon conviction of any violation of the Controlled Substances Act (P.L. 91-513, as amended) or any drug offense. Each state shall certify annually to the U.S. Secretary of Transportation that it meets the requirements of 23 U.S.C. 159.

The states that do not meet the requirements of Section 159 by October 1, 1993, will have 5 percent of certain federal-aid highway funds withheld from its funds apportioned on October 1, 1993 (FFY 1994).

If a state remains out of compliance as of October 1, 1994, 5 percent is to be withheld from its funds apportioned on October 1, 1994 (FFY 1995).

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If a state remains out of compliance as of October 1, 1995, 10 percent of the designated funds will be permanently withheld (lost) from its funds apportioned on October 1, 1995 (FFY 1996), and each year thereafter.

As soon as a state is found in compliance, funds withheld prior to October 1, 1995 -- which have not lapsed -- will be released to the state. I have attached a chart indicating the financial impact of Kansas' noncompliance. (Attachment A) Also attached is the estimated apportionments and funds to be withheld for FFY 1994 through FFY 1997 as well as a chart showing funds estimated to be lost through FFY 1999. (Attachment B and C)

BACKGROUND.
The 1993 Kansas legislature considered proposals for both a resolution (waiver) and legislation.

Senate Concurrent Resolution, SCR 1611, was passed by the Senate on March 1, 1993. The House Transportation Committee amended and passed the Resolution out of the Committee. However, it did not receive sufficient votes on the floor of the House to pass. The resolution has been approved by U.S. Department of Transportation, National Highway Traffic Safety Administration (NHTSA), for compliance with the Act. A copy of both versions of SCR 1611 is attached for your reference. (Attachment D and E)

Senate Bill 294 was referred to the Senate Transportation and Utilities Committee with no action taken by the committee. NHTSA has approved a proposed bill submitted by this agency which has been slightly modified to meet compliance with the Act. A copy of the proposed bill is attached for your reference. (Attachment F)

CURRENT STATUS.
State compliance:
Kansas will not comply with the requirements of Section 159 by September 30, 1993.

Total estimated withholding of FFY 1994 Apportionments: $7.7 million.

If Kansas remains out of compliance after September 30, 1994:
Total estimated additional withholding of FFY 1995 Apportionments: $7.9 million.

If Kansas remains out of compliance after September 30, 1995:
Total estimated loss of FFY 1996 Apportionments: $13.9 million.

If Kansas remains out of compliance after September 30, 1996: Total estimated additional loss of Apportionments: $15.9 Million ($2.0 Million FFY 1994 Apportionments and $13.9 Million FFY 1997 Apportionments)

If Kansas remains out of compliance after September 30, 1997: Total estimated additional loss of Apportionments: $21.6 Million ($7.7 Million FFY 1994 Apportionments, $2.0 Million FFY 1995 Apportionments and $13.9 Million FFY 1998 Apportionments.)

If Kansas remains out of compliance after September 30, 1998: Total estimated additional loss of Apportionments: $19.9 Million ($5.9 Million FFY 1995 Apportionments and $13.9 Million FFY 1999 Apportionments.)

If Kansas remains out of compliance after September 30, 1999: Total estimated additional loss of Apportionments : $13.9 Million (And $13.9 Million each year thereafter.)

Total estimated loss through calendar year 2000: $99.1 Million.

National compliance:
As of August 18, 1993, 33 states/territories have official compliance with Section 159.

Seven (7) states and the territory of Puerto Rico have complied through legislation, 25 states through resolution. A list is attached for your reference. (Attachment G)

COMPONENTS OF THE LAW.
The state must enact and enforce a law that requires:
- The revocation or suspension for at least six months, of the driver's license of any individual who is convicted after the enactment of such law, of
-- any violation of the Controlled Substances Act, or
-- any drug offense, and
-A delay in the issuance or reinstatement of a driver's license to such an individual for at least six months after the individual applies for the issuance or reinstatement of a driver's license if the individual does not have a driver's license, or the driver's license of the individual is suspended at the time the individual is so convicted.

COMPONENTS OF THE RESOLUTION (WAIVER).
The Governor of the state must:
- Submit to the U.S. Secretary of Transportation a written certification stating that she is opposed to the enactment or enforcement in the state of a law described above, and

- Submit to the U.S. Secretary of Transportation a written certification that the legislature has adopted a resolution expressing its opposition to a law described above.

The Act provides for the flexibility in the wording of the resolution and the certification statement by the governor. If the state legislature opposes enactment or enforcement of a law that meets the Section 159 criteria, they may express their opposition in their own words. I have attached a copy of the resolution submitted by the State of Idaho which has been approved for compliance. (Attachment H) It is an example of that flexibility.

CERTIFICATION AS A RESULT OF ENACTING THE LAW.
Compliance with the Act via legislation includes an enforcement criterion. The initial certification shall include:
- An enforcement plan describing the steps the state is taking, or plans to take, to enforce the law with regard to out-of-state convictions, within state convictions, federal convictions, and juvenile adjudications.

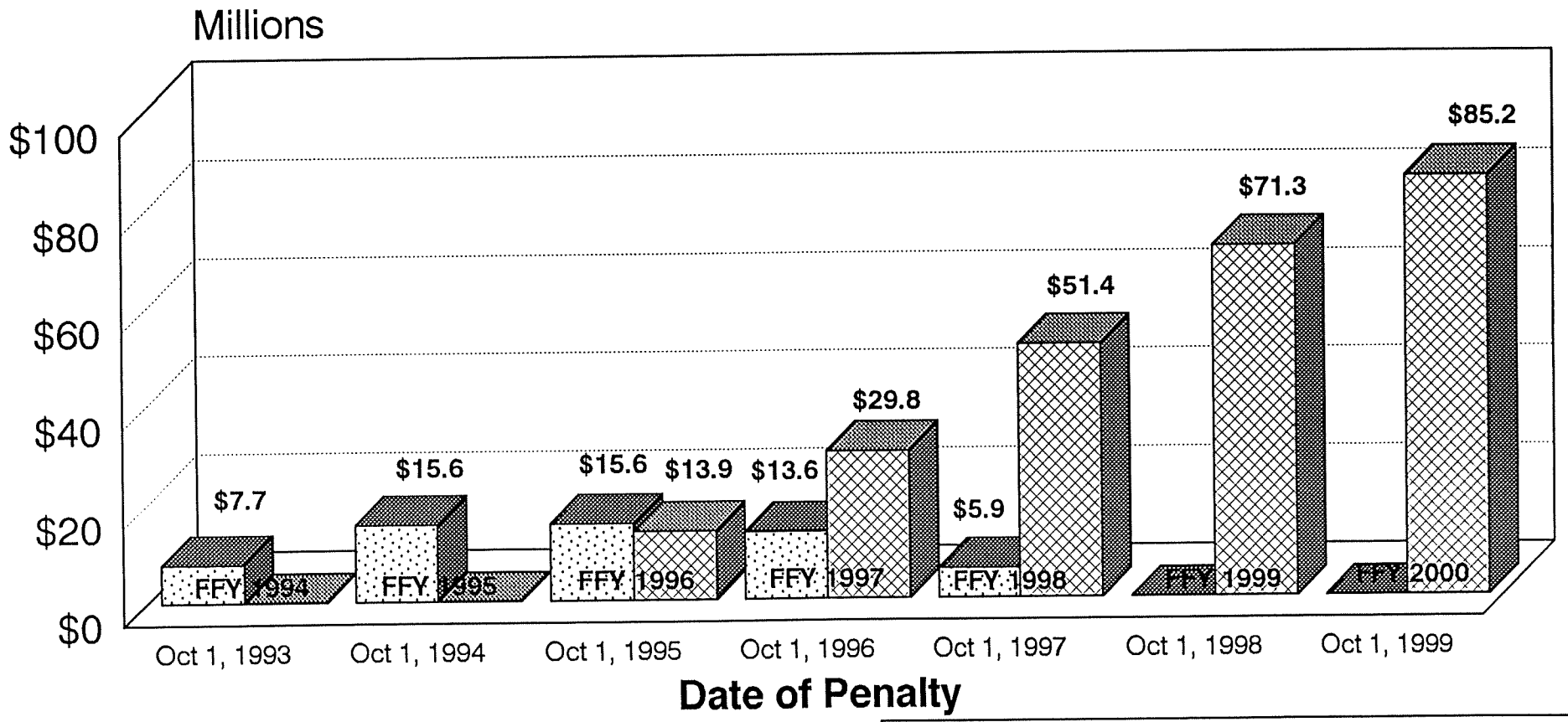
In subsequent years' certification:
- A state would be required to amend or supplement its original submission if it had qualified under the enforcement criterion of this regulation by submitting a plan and had failed to make progress under its plan in subsequent years, or the plan had changed significantly.

IMPLEMENTATION COSTS.
This federal mandate is imposed upon the states without federal funding to implement the provisions of the legislation. We do recognize that some additional costs will be borne by the state to implement the legislation under the Act.

Drug Sanction

Cumulative Impact of Noncompliance

Certification required prior to the beginning of the Federal Fiscal Year



Federal Apportionments

Withheld But Restorable Lost*

FFY 1994 and 1995 withheld funds remain available for release for a limited period of time if the State comes into compliance with the federal mandate. Noncompliance results in the permanent loss of withheld funds.

*Amounts lost represent permanent loss of funds withheld in the current or prior Federal Fiscal Years.

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ATTACHMENT A

DRUG OFFENDER'S DRIVER'S LICENSE SUSPENSION PROGRAM

Following is the Division of Planning and Development's estimate of the total funds (in millions of dollars) which will be withheld if the statutory requirements of the Drug Offender's Driver's License Suspension Program are not met. Funds withheld in FFY 1994 and 1995 will remain available for apportionment for a period of time if the State eventually meets requirements for compliance. Funds withheld from apportionments after September 30, 1995 (FFY 1996, FFY 1997 and beyond), will not be restored and will be lost as of the first day of the respective Federal fiscal year.

	FFY 1994	FFY 1995	FFY 1996	FFY 1997
I Maintenance	$39.5	$39.5	$39.5	$39.5
NHS	48.1	48.1	48.2	48.2
STP	51.5	51.5	51.5	51.5
Hold Harmless	14.5	19.1	0.0	0.0
Total	153.6	158.2	139.2	139.2
% Transferred	5.0%	5.0%	10.0%	10.0%
TRANSFER AMT	$7.7	$7.9	$13.9	$13.9

Note: Although FHWA's Advanced Notice of Apportionments for FFY 1994 has recently been released, the amounts for IM, NHS, and STP do not vary greatly from the estimates shown above. The Advanced Notice does not include an amount for HH funds as these funds cannot be determined until the actual close of FFY 1993. For these reasons, the Division of Planning and Development recommends using the above estimates for FFY 1994, until the actual data becomes available.

LATEST DATE TO QUALIFY FOR RELEASE OF FUNDS BEFORE FUNDS LAPSE

PENALTY/FED. FISCAL YR.	INTERSTATE MAINTENANCE	NHS & STP
FFY 1994 Apportionment 5% Penalty	September 30,1996	September 30, 1997
FFY 1995 Apportionment 5% Penalty	September 30, 1997	September 30, 1998
FFY 1996 & Thereafter Apportionment 10% Penalty	Apportionment Lost	Apportionment Lost

ESTIMATED AMOUNTS OF FUNDS LOST BY YEAR DUE TO DRUG SANCTION NONCOMPLIANCE

($s in millions)

Program/ Year of Apport.	Year Funds Are Lost					
	FFY 1994	FFY 1995	FFY 1996	FFY 1997	FFY 1998	FFY 1999
I Maint.						
FFY '94				2.0		
FFY '95					2.0	
FFY '96			4.0			
FFY '97				4.0		
FFY '98					4.0	
FFY '99						4.0
NHS						
FFY '94					2.4	
FFY '95						2.4
FFY '96			4.8			
FFY '97				4.8		
FFY '98					4.8	
FFY '99						4.8
STP*						
FFY '94					3.3	
FFY '95						3.5
FFY '96			5.2			
FFY '97				5.2		
FFY '98					5.2	
FFY '99						5.2
TOTAL LOST	0.0	0.0	13.9	15.9	21.6	19.9

* Includes amounts estimated for Hold Harmless.

Note: Totals may not add due to rounding

DIVISION OF PLANNING AND DEVELOPMENT
September 3, 1993

As Passed by Senate 3-1-93

Session of 1993

Senate Concurrent Resolution No. 1611

By Committee on Transportation and Utilities

2-11

A CONCURRENT RESOLUTION expressing the Kansas Legislature's opposition to Federal legislation requiring revocation or suspension of drivers' licenses for any drug-related offense.

WHEREAS, The United States Congress has enacted legislation mandating the withholding of certain federal-aid highway funds from any state that fails to favorably act upon state legislation related to the revocation or suspension of the driver's license of any person convicted of a drug-related offense; and

WHEREAS, The imposition of federal-aid highway fund sanctions inappropriately attempts to override state prerogatives by coercing states into enacting specific legislation addressing drug abuse; and

WHEREAS, The Kansas Legislature is opposed to the federal law requiring the revocation or suspension of the driver's license for any person convicted of a drug offense unrelated to the operation of a motor vehicle; and

WHEREAS, The federal law further provides that a state may avoid loss of federal-aid highway funds if the state legislature enacts a resolution expressing opposition to such legislation and the Governor conveys the Governor's opposition and the legislature's resolution to the United States Secretary of Transportation; and

WHEREAS, The state of Kansas has elected to comply with this Congressional legislation by expressing opposition to the enactment of state legislation related to the revocation or suspension of the driver's license of any person convicted of a drug-related offense: Now, therefore,

Be it resolved by the Senate of the State of Kansas, the House of Representatives concurring therein: That the Kansas Legislature opposes enactment or enforcement in the State of Kansas of a federally mandated law relating to revocation, suspension, issuance or reinstatement of drivers' licenses of convicted drug offenders as described in 23 U.S.C. 104(c)(3)(A); and

Be it further resolved: That this resolution be prepared and delivered to the Governor of the State of Kansas and that the Governor submit to the United States Secretary of Transportation:

(1) A written certification that the Governor of the State of Kansas is opposed to the enactment or enforcement of a law related to the revocation or suspension of a person's driver's license for any drug-related offense; and

(2) a duly authenticated copy of this resolution as passed by the Kansas Legislature.

Be it further resolved: That copies of the documents provided to the United States Secretary of Transportation also be transmitted to the President of the United States, the President of the Senate and the Speaker of the House of Representatives of the United States Congress and to the Kansas Congressional delegation.

As Amended by House Committee

Session of 1993

Senate Concurrent Resolution No. 1611

By Committee on Transportation and Utilities

2-11

A CONCURRENT RESOLUTION expressing the Kansas Legislature's opposition to Federal legislation requiring revocation or suspension of drivers' licenses for any drug-related offense.

WHEREAS, The United States Congress has enacted legislation mandating the withholding of certain federal-aid highway funds from any state that fails to favorably act upon state legislation related to the revocation or suspension of the driver's license of any person convicted of a drug-related offense; and

WHEREAS, ~~The~~ **The Kansas Legislature believes that strong measures should be enacted and enforced against persons convicted of drug-related offenses, but the imposition of federal-aid highway fund sanctions inappropriately attempts to override state prerogatives by coercing states into enacting specific legislation addressing drug abuse; and**

~~WHEREAS, The Kansas Legislature is opposed to the federal law requiring the revocation or suspension of the driver's license for any person convicted of a drug offense unrelated to the operation of a motor vehicle; and~~

WHEREAS, The Kansas Legislature believes that the adoption of this resolution is only an interim measure until stronger legislation can be developed and enacted; and

WHEREAS, The federal law further provides that a state may avoid loss of federal-aid highway funds if the state legislature enacts a resolution expressing opposition to such legislation and the Governor conveys the Governor's opposition and the legislature's resolution to the United States Secretary of Transportation; and

WHEREAS, The state of Kansas has elected to comply with this Congressional legislation by expressing opposition to the enactment of state legislation related to the revocation or suspension of the driver's license of any person convicted of a drug-related offense: Now, therefore,

Be it resolved by the Senate of the State of Kansas, the House of Representatives concurring therein: That the Kansas Legislature opposes enactment or enforcement in the State of Kansas of a federally mandated law relating to revocation, suspension, issuance or reinstatement of drivers' licenses of convicted drug offenders as described in 23 U.S.C. 104(c)(3)(A); and

Be it further resolved: That this resolution be prepared and delivered to the Governor of the State of Kansas and that the Governor submit to the United States Secretary of Transportation:

(1) A written certification that the Governor of the State of Kansas is opposed to the enactment or enforcement of a law related to the revocation or suspension of a person's driver's license for any drug-related offense; and

(2) a duly authenticated copy of this resolution as passed by the Kansas Legislature.

Be it further resolved: That copies of the documents provided to the United States Secretary of Transportation also be transmitted to the President of the United States, the President of the Senate and the Speaker of the House of Representatives of the United States Congress and to the Kansas Congressional delegation.

PROPOSED BILL NO. ____

AN ACT concerning crimes and punishments; providing for the suspension of a person's driver's license for conviction of drug offense; amending K.S.A. 8-256 and repealing the existing section.

Be it enacted by the Legislature of the State of Kansas:

New Sec. 1. (a) As used in this section:

(1) "Division" means the division of vehicles of the department of revenue;

(2) "driver's license" means any license to operate a motor vehicle issued under the laws of this state;

(3) "drug offense" means any criminal offense which proscribes: (A) The possession, distribution, manufacture, cultivation, sale, transfer, or the attempt or conspiracy to possess, distribute, manufacture, cultivate, sell, or transfer any substance the possession of which is prohibited under the uniform controlled substances act K.S.A. 65-4101 through 65-4141, and amendments thereto, or under K.S.A. 65-4159, and amendments thereto; or (B) the operation of a motor vehicle under the influence of any substance the possession of which is prohibited under the uniform controlled substances act K.S.A. 65-4101 through 65-4141, and amendments thereto.

(b)(1) If a person is convicted of any drug offense the division shall:

(A) Suspend the person's driver's license for a period of at least six months; or

(B) delay the issuance or reinstatement of such person's driver's license for a period of at least six months after the person applies for the issuance or reinstatement of such person's driver's license if the person does not have a driver's license,

or the driver's license of the person is canceled, suspended, or revoked at the time the person is convicted.

(b)(2) For the purpose of this subsection a conviction shall include an adjudication entered in a court having jurisdiction of juvenile offenses and offenders.

(c) The provisions of this section are mandatory and shall not be altered by any term or provision of sentencing or probation.

(d) The director, upon notification of a conviction of a person holding a Kansas driver's license in any federal court, shall suspend the driver's license of such person as required by this section unless it appears that the federal court, in such court's sentence, imposed a suspension for conviction of a drug offense as required by this section.

(e) The suspension required by this section shall be in addition to any other suspension imposed under K.S.A. 8-252, and amendments thereto, unless it appears that the reporting state has, in such states's sentence, imposed a suspension for conviction of a drug offense as required by this section. The maximum allowable term of suspension provided for by K.S.A. 8-252, and amendments thereto, shall be extended in any case where required to effect the suspension required by this section.

(f) If a person is convicted under K.S.A. 8-1567, and amendments thereto, of a drug offense, as defined under paragraph (B) of paragraph (3) of subsection (a), the provisions of this section shall apply and shall be in addition to any other penalty permitted for conviction under K.S.A. 8-1567, and amendments thereto.

(g) Nothing in this section shall preclude the suspension of a person's driver's license for a period longer than six months.

Section 2. K.S.A. 8-256 is hereby amended to read as follows: 8-256. (a) The division shall not suspend a person's license to operate a motor vehicle on the public highways for a period of more than one year, except as permitted under K.S.A.

~~40-3104-and-40-3118,-and-amendments-thereto,--and~~ K.S.A. 8-262, 8-1219, 8-2107 ~~or~~, 8-2110, ~~and--amendments--thereto-or-K.S.A.~~ 8-2,125 through 8-2,142, 40-3104 and 40-3118, and amendments thereto, and section 1 of this act.

(b) Any person whose license to operate a motor vehicle on the public highways has been revoked shall not be entitled to have such license renewed or restored unless the revocation was for a cause which has been removed, except that after the expiration of one year from the date on which the revoked license was surrendered to and received by the division such person may make application for a new license as provided by law, except as otherwise provided by K.S.A. 8-2,142, and amendments thereto, but the division shall not then issue a new license unless and until it is satisfied after investigation of the habits and driving ability of such person that it will be safe to grant the privilege of driving a motor vehicle on the public highways.

Sec. 3. K.S.A. 8-256 is hereby repealed.

Sec. 4. This act shall take effect and be in force from and after its publication in the statute book.

12-12

Norman B. McPherson
Regional Administrator
U. S. Department of Transportation
National Highway Traffic Safety
Administration - Region VII

13

SECTION 159 TESTIMONY

KANSAS STATUS:

1 RESOLUTION PASSED BY SENATE DURING 1992 SESSION HAS BEEN REVIEWED BY NHTSA OFFICE OF THE CHIEF COUNSEL AND FOUND TO MEET ALL SECTION 159 CRITERIA.

2 THE KANSAS DEPARTMENT OF TRANSPORTATION SUBMITTED A PROPOSED BILL TO NHTSA FOR REVIEW LAST YEAR. AS AMENDED OUR OFFICE OF CHIEF COUNSEL HAS DETERMINED THAT THE PROPOSED BILL WILL MEET THE CRITERIA FOR SECTION 159. A PROPOSAL WAS PRESENTED AT THE SENATE HEARING TO AMEND THE PROPOSED LEGISLATION TO ALLOW FOR DIVERSION OF FIRST OFFENSE DRUG OFFENDERS. I HAVE CHECKED WITH THE WASHINGTON OFFICE AND IT HAS ALREADY BEEN DETERMINED THAT A LAW WITH A DIVERSION PROVISION WILL NOT MEET THE SECTION 159 CRITERIA.

3 THERE HAS BEEN SOME CONFUSION OVER COMPLIANCE VS CERTIFICATION DATES. THE COMPLIANCE DATE IS SEPTEMBER 30 THE END OF THE FISCAL YEAR. IF THE STATE IS NOT IN COMPLIANCE AT THAT TIME, FUNDS WILL BE WITHHELD ON OCTOBER 1 FROM THE NEXT YEAR'S APPORTIONMENTS AND PREVIOUSLY WITHHELD FUNDS FOR WITH THE AUTHORIZATION HAS LAPSED WILL BE LOST.

3 KANSAS HAS HAD 5% OF IT'S FY 1994 INTERSTATE MAINTENANCE AND NATIONAL HIGHWAY SYSTEM AND SURFACE TRANSPORTATION PROGRAM FUNDS WITHHELD THIS YEAR. THIS WITHHOLDING AMOUNTS TO APPROXIMATELY 7 MILLION DOLLARS THIS YEAR. (SEE HANDOUT FOR DETAILS OF WITHHOLDING AND HOW LONG FUNDS WILL BE AVAILABLE FOR REINSTATEMENT)

4 IF KANSAS IS NOT IN COMPLIANCE WITH SECTION 159 BY SEPTEMBER, 30 1995 THE PENALTY INCREASES TO 10% ON OCTOBER, 1 1995 AND THE FUNDS ARE LOST.

HOUSE TRANSPORTATION
November 30, 1993
Attachment 13-1

5 AFTER THE STATE HAS MET THE COMPLIANCE CRITERIA, THE GOVERNOR MUST CERTIFY BY JANUARY 1 OF EACH SUBSEQUENT YEAR THE STATE MUST CERTIFY THAT IT IS STILL MEETING THE SECTION 159 REQUIREMENTS. IE; THE LAW IS BEING IMPLEMENTED OR THE RESOLUTION IS STILL IN AFFECT AND THE GOVERNOR STILL OPPOSES THE REQUIREMENTS OF SECTION 159.

HOUSE TRANSPORTATION
November 30, 1993
Attachment B-2

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
REGIONAL OPERATIONS
DRUG OFFENDER'S DRIVER'S LICENSE SUSPENSION RULE
SECTION 159

STATES/TERRITORIES APPROVED FOR SATISFYING THE RULE

DATE: August 18, 1993

RESOLUTION	LEGISLATION
Arizona	Arkansas
Alaska	Florida
Colorado	Iowa
Connecticut	Mississippi
Hawaii	Texas
Idaho	Virginia
Louisiana	Wisconsin
Maine	Puerto Rico (Territory)
Minnesota	
Missouri	
Montana	
Nebraska	
Nevada	
New Hampshire	
New Mexico	
North Dakota	
Oregon	
Rhode Island	
South Dakota	
Tennessee	
Utah	
Vermont	
Washington	
West Virginia	
Wyoming	

LEGISLATURE OF THE STATE OF IDAHO

Fifty-second Legislature

First Regular Session — 1993

IN THE HOUSE OF REPRESENTATIVES

HOUSE CONCURRENT RESOLUTION NO. 33

BY WAYS AND MEANS COMMITTEE

A CONCURRENT RESOLUTION

STATING LEGISLATIVE FINDINGS, CERTIFYING LEGISLATIVE OPPOSITION TO THE FEDERAL MANDATE PERTAINING TO THE REVOCATION OR SUSPENSION OF DRIVING PRIVILEGES OF CONVICTED DRUG OFFENDERS, AND REQUESTING THAT THE GOVERNOR OF THE STATE OF IDAHO JOIN IN CERTIFYING HIS OPPOSITION TO THE FEDERAL MANDATE.

Be It Resolved by the Legislature of the State of Idaho:

WHEREAS, in recent years the number of federal "riders" or conditions attached to federal funds earmarked for the states has increased dramatically; and

WHEREAS, these riders threaten the states with subsequent loss of the federal funds if they do not adopt certain policies or laws; and

WHEREAS, according to the National Governors' Association, states currently face thirteen different financial penalties under which they can lose from five to one hundred percent of their highway funds for failure to comply with federal requirements; and

WHEREAS, the government of the United States has a difficult time conceiving of the proposition that each state is a sovereign general purpose government and the proposition that the government of the United States is a limited purpose government; and

WHEREAS, it is imperative that the State of Idaho assist in the education of the government of the United States with regard to the concept of sovereignty of the states; and

WHEREAS, under the provisions of Section 333 of the Department of Transportation and Related Agencies Appropriations Act of 1991, the Congress of the United States has mandated that the Secretary of Transportation is required to withhold five percent of a state's portion of the federal aid to highways funds where the state has not enacted a law which complies in every respect with the federal concept of revoking or suspending the driving privileges of convicted drug offenders; and

WHEREAS, under the provisions of Section 333 of the Department of Transportation and Related Agencies Appropriations Act of 1991, the Congress of the United States has provided that so as not to lose its federal aid to highways funds a state's legislature may adopt a resolution expressing its opposition to being coerced by the federal government into enacting a law to revoke or suspend the driving privileges of convicted drug offenders; and

WHEREAS, in order not to lose federal aid to highways funds, the governor of the state must also certify to the Secretary of Transportation that his state is opposed to being forced by the federal government into the enactment and enforcement of a law revoking or suspending the driving privileges of convicted drug offenders solely for the purpose of avoiding federal sanctions.

NOW, THEREFORE, BE IT RESOLVED by the members of the First Regular Session of the Fifty-second Idaho Legislature, the House of Representatives and the Senate concurring therein, that the Idaho Legislature certifies to the Secretary of Transportation, under the provisions of Section 333 of the Department

of Transportation and Related Agencies Appropriations Act of 1991, that it is opposed to the enactment and enforcement of a law relating to the revocation, suspension, issuance and reinstatement of the driving privileges of persons convicted of violations of the Idaho Uniform Controlled Substances Act simply for the purpose of complying with another federal mandate; and

BE IT FURTHER RESOLVED that the Idaho Legislature, so as not to lose federal aid to highways funds, and in order to help the government of the United States understand its limited mission, urges the Governor of the State of Idaho also to certify to the Secretary of Transportation that this state is opposed to being forced by the federal government to enact and enforce a law revoking or suspending the driving privileges of convicted drug offenders; and

BE IT FURTHER RESOLVED that certified copies of this Concurrent Resolution be transmitted to the Secretary of Transportation, the President of the Senate and the Speaker of the House of Representatives of Congress, the congressional delegation representing the State of Idaho in the Congress of the United States and the Governor of the State of Idaho.

ATTACHMENT I

U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

OCT - 6 1993

Ms. Rosalie Thornburgh
Administrator
Office of Traffic Safety
Thacker Building, 2nd Floor
217 SE, 4th Street
Topeka, KS 66603

Dear Ms. Thornburgh:

In response to your request, we have prepared the enclosed answers to Kansas' questions concerning the Section 159 requirements concerning drug offenders' driver's license suspension.

I hope that this information clarifies these issues for you. Please let me know if you need any additional information.

Sincerely,

Adele Derby
Associate Administrator for
Regional Operations

Enclosures

13-6

ANSWERS TO KANSAS' QUESTIONS REGARDING SANCTIONS FOR NONCOMPLIANCE OF 23 U.S.C. 159 DRUG OFFENDER'S DRIVER'S LICENSE SUSPENSION

QUES. #1: Because FY 1994 and 1995 funds which would be withheld due to noncompliance with 23 U.S.C. 159 remain eligible for release for a period of time, it appears that the first funds a State would actually lose due to noncompliance would be the 10 percent withheld in FY 1996 from Interstate Construction, Interstate Maintenance, NHS, and Hold Harmless. Is this correct?

ANS. #1: Period of Availability of Withheld Funds

If a State falls into compliance with 23 U.S.C. 159 at any time during the Fiscal Year (FY '94 or FY '95) in which the funds were withheld, the following provisions apply:

FY 1994 -- Interstate Construction funds will be available for release until **September 30, 1994.** Interstate Maintenance funds will be available for release until September 30, 1996. NHS and STP funds will remain available for release until September 30, 1997.

FY 1995 -- Interstate Construction funds will be available for release until **September 30, 1995.** Interstate Maintenance funds will be available for release until September 30, 1997. NHS and STP funds will remain available for release until September 30, 1998.

FY 1996 & Thereafter -- Funds withheld after September 30, 1995 (10% penalty in FY 1996 and thereafter), will not be available for apportionment to the State.

(PLEASE SEE ENCLOSURE 2)

QUES. #2 What is the latest date that a State can certify compliance to the Secretary of Transportation and not lose FY 1996 funds? Is it by January 1, 1995 (23 CFR 1212.5(a))? Is it by August 1, 1995 (1212.10(b))? Or, is it by September 30, 1995 (1212.4(b))?

ANS. #2 September 30, 1995, is the last date that a State can come into compliance and avoid the loss of FY 1996 funds.

The regulation cites:

> **§1212.4 Adoption of drug offender's driver's license suspension.**
> (b) The Secretary shall withhold ten percent of the amount required to be apportioned to any State under each of sections 104(b)(1), 104(b(3), and 104(b)(5) of title 23 of the United States Code on the first day of fiscal year 1996 and any subsequent fiscal year if the State does not meet the requirements of this section on that date.
>
> **§1212.6 Period of availability of withheld funds.**
> (b) Funds withheld under §1212.4 from apportionment to any State after September 30, 1995 will not be available for apportionment to the State.

QUES. #3 Section 1212.7 of 23 CFR Part 1212 is confusing. Can a State wait until September 30th of the last year of eligibility of previously withheld funds to submit certification (assuming eventual approval by FHWA and NHTSA regarding the appropriate legislation or legislative resolution) and still avoid loss of these funds?

ANS. #3 A State can wait to submit compliance documents until the last day of FY 1994 (September 30, 1994) or the last day of FY 1995 (September 30, 1995) and avoid the loss of withheld funds which have not lapsed.

However, to ensure sufficient time for review and approval, States are strongly encouraged not to wait until the last day of the fiscal year to submit their compliance documents. That is why the regulation states in §1212.5 that certifications should be submitted by "April 1, 1993 and by January 1 of each subsequent year."

Period of Availability of Withheld Funds

Funds withheld (5% penalty) in FY 1994 and FY 1995 will remain available for apportionment **after October 1, 1993 and October 1, 1994**, as follows:

104(b)(5)(A) Interstate Construction Funds will remain available until the end of the fiscal year for which the funds are authorized to be appropriated. (Current year)

104(b)(5)(B) Interstate Maintenance Funds will remain available until the end of the second fiscal year following the fiscal year for which the funds are authorized to be appropriated.
(Current year plus 2 years)

104(b)(1) National Highway System and 104(b)(3) Surface Transportation Program Funds will remain available until the end of the third fiscal year following the fiscal year for which funds are authorized to be appropriated.
(Current year plus 3 years)

Funds withheld (10% penalty) after September 30, 1995 (in FY 1996 and thereafter) will not be available for apportionment to the State.

Latest Date to Qualify for Release of Funds Before Funds Lapse

Penalty Fiscal Years	Interstate Construction 104(b)(5)(A)	Interstate Maintenance 104(b)(5)(B)	Nat'l Hwy System & Surface Transp Program 104(b)(1) & 104(b)(3)
FY 94 Apport'ment 5% penalty	Sept. 30, 1994	Sept. 30, 1996	Sept. 30, 1997
FY 95 Apport'ment 5% penalty	Sept. 30, 1995	Sept. 30, 1997	Sept. 30, 1998
FY 96 & Thereafter Apport'ment 10% penalty	Apport'ment Lost	Apport'ment Lost	Apport'ment Lost

STATE OF KANSAS

14

John W. Smith, Vehicles Administrator
Robert B. Docking State Office Building
915 S.W. Harrison St.
Topeka, Kansas 66626-0001

(913) 296-3671
FAX (913) 296-6851

Department of Revenue
Division of Vehicles
Driver License Examining/Control

TO: Rex Crowell, Chairman
House Transportation Committee

FROM: John W. Smith
Vehicle Administrator

DATE: November 30, 1993

The department of review supports passage of Senate Concurrent Resolution 1611 in lieu of Senate Bill No. 294 which mandates the suspension of a person's driving privileges for a minimum of six months as the result of a conviction for a drug related offense. The resolution would exempt the state from this mandate by the federal government.

Passage of Senate Bill No. 294 will impose a heavy burden on the Driver Control Bureau which would have to administer this act. That bureau is already saturated with suspensions due to the enactment of numerous laws requiring the suspension of driving privileges or penalty enhancement for existing laws such as driving under the influence of alcohol or drugs. During the period from 1978 to the present, the bureau's personnel have been reduced from 104 positions to a current staffing of fifty. Additional suspensions can no longer be absorbed without additional personnel.

JWS/bmh

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ROBERT B. DAVENPORT
DIRECTOR

KANSAS BUREAU OF INVESTIGATION

DIVISION OF THE OFFICE OF ATTORNEY GENERAL
STATE OF KANSAS
1620 TYLER
TOPEKA, KANSAS 66612-1837
(913) 232-6000

15

ROBERT T. STEPHAN
ATTORNEY GENERAL

BEFORE THE HOUSE COMMITTEE ON TRANSPORTATION
KYLE G. SMITH, ASSISTANT ATTORNEY GENERAL
IN SUPPORT OF SENATE BILL 294
NOVEMBER 30, 1993

Mr. Chairman and Members of the Committee:

I am Kyle G. Smith, Assistant Attorney General assigned to the Kansas Bureau of Investigation Narcotics Strike Force. I am here today in support of the idea behind Senate Bill 294, if not the precise language. In a way I am here to urge passage of neither and both Senate Current Resolution 1611 and Senate Bill 294.

As you are aware, the federal government has mandated that one approach or the other be inacted by Kansas. As you will remember from our last hearing, the suggestion was made that a substitute resolution be introduced along the lines of the lively Idaho resolution and there also be passage of an amended version of Senate Bill 294 which would be more adapted to Kansas' computerized records and individual needs. By passing a resolution we would be relieved from the compliance requirements that the federal mandate imposes and by passing a variation of that criminal statute we can still obtain the benefits of this useful tool on the war on drugs.

As to the benefits, sometimes we tend to see illicit drugs as a foreign threat. By intercepting the shipments of supplies we think the drug problem can be solved; this disregards the production of marijuana and methamphetamine by Americans. While it is important that the <u>supply</u> of drugs, both domestic and foreign, be attacked, the basic rule of

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economics of supply and demand applies in the drug world. Where there is a demand there will be a supply. As a practical matter, we will not succeed in the drug war until the demand for illicit drugs is removed. This will take place through education and treatment, but must also be done by more active demand reduction bills like Senate Bill 294.

The casual user, in contemplating purchasing a small amount of drugs for personal use, realizes there is minimal risk to anything he or she holds dear even if caught. They know the state is not going to spend it's precious jail space on a person involved in simple possession. At most they are facing a fine which will be less than a month's supply of drugs. Because of the minimal risk to these casual users there is minimal deterrence. Drug abuse is not a crime of passion that occurs on the spur of the moment, but for these casual users it's a choice of a form of entertainment.

The embarrassment and inconvenience of having their driver's license suspended can provide a cost-effective way to drive home that drug usage does have consequences and reduce the demand for drugs in this state. Restricted drivers licenses can be provided which will allow the casual user to keep their job, but still provide the deterrence. I recognize this will not deter a hard-core heroin addict, but we are looking at demand reduction, not elimination.

The point has been made that a drug dealer, as opposed to simple user, who by definition is willing to commit level 3 drug trafficking

offenses, and possibly even murder, will not be detered from violating the traffic code by driving without a license.

However, the suspension of a driver's license would still create an effective tool for law enforcement. Either such a dealer will have to: (a) arrange transporation by other means, such as a driver, which is at a minimum an inconvenience, and also creates another link in the chain which risks exposure or (b) they will, in fact, ignore the law and drive even though their privileges have been suspended. This second option could be a boon to law enforcement supply side efforts.

One of the great frustrations for both citizens and law enforcement officers are those persons which we have reason to believe or even "know" are dealing drugs, but we do not have probable cause to make an arrest or obtain a search warrant. The dealer might have a record for an arrest on a trafficking offense, but was pled down to simple possession; Crime Stoppers calls may identify him as being a drug trafficker, but not have the sufficient particularity with which we can obtain search warrants. Arrested individuals may identify such a person as being their source for narcotics; we see that person using money in a manner inconsistent with their apparent income.

Law enforcement officers would love to have such individuals ignoring the traffic laws and driving while suspended. Catching them operating a vehicle while suspended would be an automatic probable cause for an arrest and a search incident thereto. Even if the individual was not "holding" at the time of the arrest for the driving while suspended charge, their

transportation and communication lines would be disrupted and my view is that anything that makes drug dealing more difficult is a worthwhile goal.

To add yet another wrinkle, there have been suggestions from several quarters that these benefits would also occur if persons who were convicted for firearms offenses suffered a similar loss of their driving privileges. I believe such an extension could be justified, particularly in the case of drive-by shootings, and SB 294 is an obvious vehicle for such proposals.

I would be happy to stand for any questions.

#110

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Statement of
Patrick J. Hurley

Presented to the House Transportation Committee
The Honorable Rex Crowell, Chairman
November 30, 1993

Statehouse
Topeka, Kansas

Mr. Chairman and members of the Committee:

I am Patrick J. Hurley and I appear on behalf of Economic Lifelines. Thank you for the opportunity to testify here today.

As you know, Economic Lifelines is the umbrella organization of numerous trade groups, associations, communities and individuals formed to support the Comprehensive Highway Program enacted by the Legislature in the 1989 session.

Economic Lifelines has continued its existence since the 1989 session to defend the highway program against reductions in highway revenues, federal or state, necessary to adequately finance all the highway improvement projects planned during the life of that program.

As such we have consistently opposed any actions by the state Legislature or the U.S. Congress which would reduce this revenue stream.

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We appear here today specifically to address two such measures which could cause Kansas to lose federal highway construction funds.

At the most recent meeting of the Board of Directors of Economic Lifelines on November 17, 1993, two resolutions were adopted which are attached to this testimony.

The first resolution urges the Legislature during the 1994 session to take the necessary action to bring Kansas into compliance with the requirements under ISTEA relating to suspension or revocation of drivers' licenses for drug conviction. We did not choose one approach over the other, rather we believe that is the prerogative of the entire Legislature.

We simply urge you to take action before any more federal highway construction funds are withheld or permanently lost. KDOT projects the potential loss could be almost $100 million by the year 2000. Any such loss of revenue would have a dramatic impact on the highway program and would certainly cause the loss of some projects now planned for the program.

The second resolution urges the Legislature during the 1994 session to enact a mandatory motorcycle helmet law to bring Kansas into compliance with the requirements of ISTEA and prevent the permanent transfer of federal highway construction funds over to a limited use for highway safety programs only.

Economic Lifelines supports highway safety programs but believes they should be funded independent and separate of funds intended for construction projects throughout the state of Kansas.

For these reasons the Board of Directors and members of Economic Lifelines strongly recommend that you take the actions necessary to bring Kansas into compliance with federal laws and thereby protect the integrity of the Kansas Comprehensive Highway Program.

Thank you for your consideration and I would be happy to answer any questions the committee may have.

RESOLUTION OF THE BOARD OF ECONOMIC LIFELINES

WHEREAS, Economic Lifelines is an organization of various associations, businesses and individuals formed to promote and support the Kansas Comprehensive Highway Program enacted by the Legislature in 1989; and

WHEREAS, Economic Lifelines has consistently opposed the transfer, reduction or loss of any of the revenue components of the Kansas Comprehensive Highway Program, including Federal and State revenues; and

WHEREAS, Under the Intermodal Surface Transportation Efficiency Act of 1991, states are required to enact a law requiring all individuals on a motorcycle to wear helmets in order for those states to be eligible to receive certain federal highway funds; and

WHEREAS, Any state which fails to enact such a law prior to October 1, 1993, is subject to a transfer of funds from three federal aid highway programs to its section 402 highway safety program; and

WHEREAS, Any state not in compliance with this requirement on October 1, 1993, will experience the transfer of 1 1/2 per cent of its federal highway construction funds for federal fiscal year 1995; and if still in noncompliance on October 1, 1994, will experience transfer of three percent of it's federal highway construction funds in federal fiscal year 1996 and the same percentage transfer in federal fiscal year 1997; and

WHEREAS, Due to the failure of the Kansas Legislature to enact a mandatory helmet law in the 1993 session, Kansas did not comply with the helmet law requirements on October 1, 1993, and will incur the 1 1/2 percent penalty in federal fiscal year 1995 on October 1, 1994, and an estimated $1.9 million in construction funds will be transferred to the section 402 highway safety program; and

WHEREAS, If the helmet law is not enacted by the Legislature prior to October 1, 1994, an estimated $3.1 million of construction funds will be diverted in federal fiscal year 1996 (beginning October 1, 1995); and if still not enacted prior to October 1, 1995, an additional $3.1 million of construction funds will be diverted in federal fiscal year 1997.

Now there be it resolved: That the Board and members of Economic Lifelines urges the Kansas Legislature to enact a mandatory helmet law in the 1994 legislative session to avoid further transfer or loss of highway construction funds in Kansas.

This Resolution adopted by formal action of the Board of Economic Lifelines on November 17, 1993.

RESOLUTION OF THE BOARD OF ECONOMIC LIFELINES

WHEREAS, Economic Lifelines is an organization of various associations, businesses and individuals formed to promote and support the Kansas Comprehensive Highway Program enacted by the Legislature in 1989; and

WHEREAS, Economic Lifelines has consistently opposed the transfer, reduction or loss of any of the revenue components of the Kansas Comprehensive Highway Program, including Federal and State revenues; and

WHEREAS, Under the Intermodal Surface Transportation Efficiency Act of 1991, the U.S. Department of Transportation may withhold a portion of the Federal highway funds from states which fail to take certain actions relating to revocation or suspension of drivers' licenses for persons convicted of drug related offenses; and

WHEREAS, Each state is required to certify annually to the U.S. Secretary of Transportation that they are in compliance with this requirement or face potential permanent loss of these revenues; and

WHEREAS, States not meeting the requirements by October 1, 1993 will have five percent of certain Federal highway funds withheld for Federal fiscal year 1994, and if not in compliance on October 1, 1994, will have another five percent withheld, and if not in compliance by October 1, 1995, will have ten percent withheld each year thereafter until the state is in compliance; and

WHEREAS, A state can come into compliance by either of two methods: enactment of a law imposing the required penalties for drug related convictions, or adoption of a resolution setting forth the state's opposition to enactment or enforcement of such a law together with a letter from the Governor certifying such opposition; and

WHEREAS, Due to the failure of the Legislature to give final approval to either a bill or resolution Kansas is not now in compliance with the Federal requirement and on October 1, 1993, a total of $7.1 million in Federal funds was withheld; and if Kansas continues in noncompliance an estimated $7.9 million will be withheld on October 1, 1994, and $13.9 million will be withheld October 1, 1995 and every year thereafter.

Now therefore be it resolved: That the Board and members of Economic Lifelines urges the Kansas Legislature to approve one of the required methods to bring Kansas into compliance with the Federal requirements in the 1994 session of the Kansas Legislature to avoid any further withholding and permanent loss of Federal highway funds to Kansas.

This Resolution adopted by formal action of the Board of Economic Lifelines on November 17, 1993.

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STATEMENT

By The

KANSAS MOTOR CARRIERS ASSOCIATION

Supporting action to protect highway construction funds.

Presented to the House Transportation Committee, Rep. Rex Crowell, Chairman; Statehouse, Topeka, Monday, November 29, 1993.

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

My name is Mary E. Turkington and I am the Executive Director of the Kansas Motor Carrirs Association. I appear here today along with Tom Whitaker, our Governmental Relations Director, on behalf of our members and the highway transportation industry.

We strongly support the need for this Committee and the Kansas Legislature to take positive action in the 1994 Legislative Session to protect the current funding streams for the state's highway program -- including action to prevent withholding of Federal highway funds for failure to take certain actions relating to revocation or suspension of drivers licenses for persons convicted of drug related offenses.

Pat Hurley has explained these issues clearly, we believe. We are a part of the coalition that comprises Economic Lifelines. We, too, do not favor one type of action over the other. Appropriate statutory provisions which would impose required penalties for such drug related convictions are an option.

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The second acceptable method is approval by both houses of the State Legislature of a resolution stating that the Governor and the state are opposed to enactment or enforcement of such a law together with a letter from the Governor to the U.S. Secretary of Transportation certifying such opposition. We understand the Governor is willing to write such a letter.

Our industry further urges enactment of a mandatory motorcycle helmet law. Disregarding the emotional issues of helmet comfort and federal government direction in matters some prefer to handle as a personal choice, let me remind you that an estimated $3.1 million of construction funds will be diverted in federal fiscal year 1996 (beginning October 1, 1995), unless the Legislature adopts such legislation prior to October 1, 1994. Another $3.1 million will be diverted from construction funds if such a law still is not enacted prior to October 1, 1995.

I don't know what a million dollars means to each of you -- but I know to those in our industry who currently are paying some 40% of the highway user taxes that fund Federal highway programs -- it is a lot of hard-earned company dollars that need to be utilized for the improvement of roads and bridges.

Our industry must comply with countless safety rules and regulations. Our cars and trucks are equipped with expensive safety devices of many kinds -- including the seat belts motorists are required to wear. Enactment of a mandatory helmet law seems to most of us a prudent, positive public policy that helps save lives, reduce serious injury -- and keep highway tax dollars working for improved, safely maintained trafficways for ALL citizens.

We ask your help accordingly.

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STATE OF KANSAS

KANSAS DEPARTMENT OF TRANSPORTATION
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(913) 296-3566
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Michael L. Johnston
Secretary of Transportation

Joan Finney
Governor of Kansas

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TESTIMONY BEFORE
HOUSE TRANSPORTATION COMMITTEE

REGARDING
ISSUES PERTAINING TO THE ENACTMENT OF
MANDATORY MOTORCYCLE HELMET LAW

November 30, 1993

Mr. Chairman and Committee Members:

Mr. Chairman and members of the committee, I am Rosalie Thornburgh, Administrator of the Office of Traffic Safety. On behalf of the Department of Transportation, I am here today to provide testimony regarding the federal requirement for all individuals on a motorcycle to wear helmets.

OVERVIEW.

Section 1031 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) (P.L. 102-240) authorizes a incentive grant program designed to promote the passage of, and compliance with, motorcycle helmet and safety belt laws. To be eligible for funding, a state must have in effect both a law requiring all individuals on a motorcycle to wear helmets and a law requiring individuals in the front seat of passenger vehicles to wear safety belts (or be secured in child passenger safety systems).

A state that fails to adopt and put into effect both laws before October 1, 1993 (the beginning of federal fiscal year 1994), is subject to a transfer of funds from three federal-aid highway programs to its section 402 highway safety program.

A state not in compliance at the beginning of federal fiscal year 1994 (October 1, 1993) will experience the transfer of 1 1/2 percent of its federal highway construction funds for federal fiscal year 1995.

For non-compliance at the beginning of federal fiscal year 1995 and beyond, the transfer will rise to 3 percent.

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STATUS OF COMPLIANCE.

Since the 1993 Kansas Legislature did not pass a mandatory helmet bill, Kansas does not comply with the helmet provisions of Section 153 and will incur the 1 1/2 percent penalty in federal fiscal year 1995 (beginning October 1, 1994). An estimated $1.9 million in construction funds will be diverted to the section 402 highway safety program.

If the universal helmet law is not passed by the Legislature prior to October 1, 1994, an estimated $3.1 million of construction funds will be diverted in federal fiscal year 1996 (beginning October 1, 1995).

If the universal helmet law is not passed prior to October 1, 1995 an estimated $3.1 million of construction funds will be diverted in federal fiscal year 1997.

Total estimated funds to be diverted through federal fiscal year 1997: $8.1 million. In addition, without the helmet legislation in place, we are not allowed to apply for available grant funds.

A detailed breakdown of estimated diversion by highway programs is shown in attachment 1.

National compliance.
As of September 16, 1993, 31 states/territories have universal helmet laws. A list of those states is shown on attachment 2.

COMPONENTS OF THE LAW.

Kansas' safety belt law is in compliance with the Act.

Motorcycle helmet laws of less than universal application or whose enforcement is by any means other than primary enforcement would be non-complying.

COMPONENTS OF THE INCENTIVE GRANT PROGRAM.

If a helmet law is in effect anytime during federal fiscal year 1994, a state can receive an incentive grant to implement a traffic safety program. The program must include education, law enforcement training, monitoring of the usage rate of compliance, and enforcement of laws.

The third and final year of funding is available through federal fiscal year 1994 (beginning October 1, 1993). The amount any state receives is contingent upon the number of states applying. Currently 22 states plus D.C. and Puerto Rico comply with the Act. Estimated initial allocation is $230,000.

PERTINENT STATISTICS.

Studies by the National Highway Traffic Safety Administration (NHTSA) indicate that an unhelmeted motorcyclist is 40 percent more likely to incur a fatal head injury and 15 percent more likely to incur a non-fatal head injury than a helmeted motorcyclist when involved in a crash. NHTSA estimates that motorcycle helmets reduce the likelihood of a fatality by 29 percent.

I have attached (attachment 3) a Kansas Motorcycle Fact Sheet which describes the motorcycle crash picture in Kansas in 1992. Twenty-nine (29) fatalities resulted from over 970 crashes. Of those fatalities, 17 percent were reported to be wearing helmets. Of those reported to be wearing helmets, the fatality rate is 1.98 per 100; of those reported not to be wearing helmets, the fatality rate is 4.07 per 100.

USE OF SAFETY BELTS AND MOTORCYCLE HELMETS

Following is the Division of Planning and Development's estimate of the total funds (in millions of dollars) which will be transferred under the penalty provisions of Section 153 of Title 23, Use of Safety Belts and Motorcycle Helmets.

	FFY 1995	FFY 1996	FFY 1997
NHS	$ 48.1	$ 48.2	$ 48.2
STP	51.5	51.5	51.5
CMAQ	4.9	5.0	5.0
Hold Harmless	19.1	0.0	0.0
Total	$123.6	$104.7	$104.7
% Transferred	1.5%	3.0%	3.0%
TRANSFER AMT.	1.9	3.1	3.1

NHS = National Highway System
STP = Surface Transportation Program
CMAQ = Congestion Mitigation and Air Quality

Division of Planning and Development
October, 1993

UNIVERSAL MOTORCYCLE HELMET LAW STATES/TERRITORIES

DATE: September 16, 1993

Alabama	Massachusetts	Pennsylvania
American Samoa	Michigan	Puerto Rico
Arkansas	Mississippi	Tennessee
California	Missouri	Texas
Dist. of Columbia	Nebraska	Vermont
Florida	Nevada	Virgin Islands
Georgia	New Jersey	Virginia
Guam	New York	Washington
Kentucky	No. Marianas	West Virginia
Louisiana	North Carolina	
Maryland	Oregon	

States	25
D.C. + Territories	6
TOTAL	31

Office of Traffic Safety

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KANSAS
MOTORCYCLE FACT SHEET
FOR THE YEAR 1992

There were 975 motorcycle crashes

* 2.9% were fatal crashes
  - 29 motorcyclists died
    - 27(93%) over age 17 (48% reported not wearing helmets)

* 81.6 were injury crashes
  - 903 cyclists were injured
    - 822(91%) over age 17 (29% reported not wearing helmets)

  - * 21% of the injury crashes resulted in serious or incapacitating injuries to 189 cyclists

* 15.5% were Property Damage Only (PDO) crashes
  - 237 of the cyclists involved in the crashes were not injured

These crashes amount to 2.7 crashes per day - resulting in -
2.5 injuries per day,
and
one fatality every 12.6 days

The cost of all crashes, including wages lost, medical expenses, insurance administration costs and property damage is $39.7 million.

Five (17%) of the 29 fatalities were wearing helmets.

207 (23%) of the 903 injured motorcyclists were wearing helmets.

Motorcycle registration is approximately 2.1% of all registered motor vehicles in Kansas, but -

Motorcycle fatalities represent 7.5 percent (a disproportionate amount) of the 387 motor vehicle fatalities in Kansas 1992.

Five of the fatalities were wearing helmets, fourteen of the fatalities were not wearing helmets. Of those reported to be wearing helmets, the fatality rate is 1.98 per 100. Of those reported not to be wearing helmets, the fatality rate is 4.07 per 100.

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KDOT - OTS 11-29-93

TESTIMONY OF THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION REGARDING MOTORCYCLE SAFETY HELMET USE, SAFETY HELMET EFFECTIVENESS, AND SAFETY HELMET LAWS.

The purpose of this testimony is (1) to provide information relating to the effectiveness of safety helmets in preventing or reducing the severity of head injuries in motorcycle crashes; (2) to discuss some of the issues raised in opposition to helmet laws; (3) and to discuss the effect that universal helmet law adoption and/or repeal has on the rate of motorcycle helmet use and rider fatalities. I have been asked by KDOT to testify here today on these issues and to respond to some of the issues that have been raised by the opposition.

Helmet Effectiveness

Although motorcycles represent only about two percent of all registered motor vehicles, crashes involving motorcycles account for approximately 7 percent of all motor vehicle fatalities. Evidence documented in this country, and countries around the world, shows conclusively that motorcycle safety helmets are effective in reducing fatalities and the likelihood and severity of head injuries in motorcycle crashes. This research dates back to the early 1940's. Research has consistently shown that unhelmeted motorcyclists involved in motorcycle crashes are 40 percent more likely to sustain a fatal head injury and 15 percent more likely to incur non-fatal head injuries, than crash victims wearing helmets.

Based on data from NHTSA's Fatal Accident Reporting System (FARS), helmets are estimated to be 29 percent effective in reducing fatalities in motorcycle crashes. The report entitled, "The Effectiveness of Motorcycle Helmets in Preventing Fatalities," is based on FARS data from 1982 through 1987.[2] The study also concludes that an estimated 9,030 lives could have been saved as a result of helmet use from 1982 to 1987 if all states had full motorcycle helmet laws.

In 1986, NHTSA conducted a study on the effect of repeal of State motorcycle helmet use laws. The publication "The Effect of Helmet Law Repeal on Motorcycle Fatalities," reports the findings of that study.[3] It was found that repeal of State helmet use laws was associated with an estimated 21.3 percent increase in motorcycle fatalities. This study is based on Fatal Accident Reporting System (FARS) data for 1975 through 1984.

In March 1989, this study was updated using four years of additional FARS data (1985 through 1988).[4] The extension of the model to include an additional four years of crash experience produced an estimated 19.6 percent increase in motorcyclist fatalities resulting from the repeal of helmet use laws during

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the period of 1975 to 1988. This estimate differs only slightly from the original estimate of 21.3 percent. These findings clearly indicate that the presence of a mandatory motorcycle helmet use law for all occupants is an effective countermeasure for reducing the number of motorcyclist fatalities by approximately 20 percent.

In 1982, the State of Louisiana became the first State to repeal and then re-enact a helmet law. A 1984 report entitled "Impact of the Re-Enactment of the Motorcycle Helmet Law in Louisiana," documented that motorcycle fatalities decreased 30 percent in 1982, the first year under the new law.[5] This reduction in deaths occurred even though motorcycle registrations increased almost six percent during the same period.

In the past four years, six states, California, Oregon, Nebraska, Texas, Maryland, and Washington, have enacted helmet use laws which govern all motorcycle occupants. When comparing motorcycle fatalities in the year prior to helmet law enactment and fatalities in the first year of helmet law implementation for the five states that have recently enacted helmet use laws, the following results are found:

CALIFORNIA - Effective date 1/1/92. Fatalities decreased 37 percent (Graph #1) in the first year after the law went in effect. During the same time period, motorcycle registrations decreased an estimated 9 percent.

NEBRASKA - Effective date 1/1/89. Fatalities decreased 32 percent (Graph #3) in the first year after the law went in effect. During the same time period, motorcycle registrations decreased 5.6 percent.

OREGON - Effective dated 6/16/89. Fatalities decreased 33 percent (Graph #2) in the first year after the law went in effect. During the same time period, motorcycle registrations decreased 5.2 percent.

TEXAS - Effective dated 9/1/89. Fatalities decreased 23 percent (Graph #1) in the first year after the law when in effect. During the same time period, motorcycle registrations decreased 9 percent.

WASHINGTON - Effective date 6/8/90. Fatalities decreased 15 percent (Graph #2) in the first year after the law went in effect. During the same time period, motorcycle registrations decreased 3.1 percent.

Source: Fatalities - FARS Registrations - FHWA

It is too early to determine the life saving benefits resulting from Maryland's new helmet use law.

The opposition will tell you that motorcycle fatalities and injuries were decreasing anyway and that helmet laws had little, if any, effect on the change. NHTSA agrees that motorcycle fatalities and injuries, graph #4, have been decreasing for several years, however, if you look at the attached graphs #1, #2, and #3, you will see that in all five states a significant drop in fatalities was experienced when their law became effective. Also in tables #1 and #2, you will note that both California and Nebraska experienced significant decreases in injuries, 27% and 40% respectively, when their helmet laws went into effect. The decreases experienced were much greater than the existing decreasing trend. Opponents will tell you that most of the decrease is due to decreases in numbers of registered motorcycle and rider education programs. These factors do account for much, if not all, of the long term decreasing trends in fatalities. However, they cannot account for the large decreases (30%+) that are experienced when full use motorcycle helmet laws are enacted. In testimony before the Kansas Senate Transportation Committee, the opponents of the helmet laws stated that Kansas has experienced decreases in fatalities as great as Nebraska since Nebraska passed its law in 1988. Graph 3 compares Nebraska motorcycle fatalities with Kansas motorcycle fatalities from 1985 to 1992. What you see is that in 1989, the year the Nebraska Helmet Law went into effect, fatalities went down and stayed down. Although Kansas has had some good years, there is no pattern of continuing reduction such as Nebraska and the other states in graphs 1 and 2 show.

It is also important to recognize the limitations when looking at individual State experience and helmet use laws. Each State has individual variables not found in all States and each rider is unique in some aspects. Variables such as length of riding season, years of riding experience, climate, terrain, proportion of a State's population in the age group likely to ride motorcycles, differences of helmet use by crash involved population, etc., affect the comparison of individual States or groupings of States. Also, motorcycle registration, which is used to normalize motorcycle fatality and injury data, is probably the most unreliable of all. Depending on the source of use, it can give you almost any number of registrations you want. More importantly, a State that enacted a helmet law could experience a substantial decrease in fatalities after the law was enacted and still have a higher fatality rate when compared to a State without a helmet law because of the reasons stated above. The findings of GAO's 1980 report to Congress confirms what is presented here. The findings of the report show that fatality rates were lower when universal helmet laws were in effect; most rates ranged from 20 to 40 percent lower. The findings also show that a decrease in fatality rates when laws were enacted were matched by comparable increases when the laws were repealed.[21]

Comprehensive Programs

Helmet use, of course, is not a cure-all for motorcycle crashes, injuries, or deaths. We believe that effective comprehensive motorcycle safety programs must encompass the issues of helmet use, motorcycle operator licensing, impaired riding, rider education, rider conspicuity, and motorist awareness of motorcycles. All of these issues when combined can have a beneficial effect on motorcycle safety. There is no panacea. Motorcycling is and will continue to be a hazardous form of personal transportation. Per mile of travel, a motorcyclist is about 20 times more likely to die in a crash than is an automobile occupant. Approximately 80 percent of reported motorcycle crashes result in injury or death, while the comparable figure for automobiles is about 20 percent.

Increased helmet use is the cornerstone of a complete motorcycle safety program. It is also important to keep in mind that one element of a program is not an alternative or substitute for another. Rider education is not a substitute for helmet use, nor is helmet use a substitute for rider education. We believe that a comprehensive program which employs a number of elements and strategies is the correct approach to any long term solution to motorcycle safety problems.

University of Southern California Study

Between 1975 and 1980, NHTSA sponsored the most detailed study of motorcycle crashes ever conducted in this country. The study was conducted by a specially trained team of investigators headed up by Dr. Harry Hurt at the University of Southern California (USC). The findings of this study are published in "Motorcycle Accident Cause Factors and Identification of Countermeasures, Volume I: Technical Report.[6] Among the motorcycling community this study is known as the "Hurt Report". In all, the team made on-site investigations of 900 motorcycle crashes and analyzed 3,600 police reports on motorcycle crashes.

The study investigated the 900 motorcycle crashes to determine the causes of the crashes and preventative measures that could be taken to reduce a motorcyclist's risk of injury and death. Concerning motorcycle helmets the Hurt report concludes, "The use of the safety helmet is the single critical factor in the prevention of head injury..."[6]

Constitutionality of Helmet Laws

It is suggested by some helmet law opponents that State laws requiring the use of safety helmets by motorcyclists may be unconstitutional. The highest courts in more than 25 States have said helmet laws are constitutional. Only one State Supreme Court (Illinois) ever invalidated a motorcycle helmet use law, and that

Court has since overruled its original decision. During 1986, the Court reversed that decision in a case in which they addressed the Illinois' safety belt law constitutionality.

The Massachusetts law requiring helmet use has been upheld by the U.S. Supreme Court. The 1980 Report to Congress on the Effect of Motorcycle Helmet Use Law Repeal, which was cited earlier, summarizes the constitutional issues.

Alleged Hearing and Vision Impairment

Helmets reduce the loudness of both the sound of interest and wind and motorcycle engine noise by an equal amount and, therefore do not alter the signal-to-noise ratio between the two sounds.[7] Consequently, if something can be heard over the wind and engine noise without a helmet, it can be heard in the same way with a helmet.

A study conducted at the University of Utah entitled " The Effect of Motorcycle Helmets on Hearing and the Detection of Warning Signals" concluded that "under no conditions did the helmet put its wearer at a disadvantage to the bare-headed rider, and at typical speeds the helmet gives considerable advantage in the detection of warning signals."[8]

The research conducted by Dr. Hurt at the University of Southern California did not find a single case in the 900 crashes investigated where hearing impairment contributed to the crash.

A study of whether helmets impair vision conducted by NHTSA found that the typical full coverage helmet, restricts a rider's field of view in the horizontal plane (peripheral vision) by less than three percent from what the person would see without a helmet.[9] Federal Motor Vehicle Safety Standard 218 requires all helmets provide a horizontal field of view of at least 210 degrees, well above the 140 degrees used by State driver licensing agencies for screening out drivers with possible vision problems that would warrant some type of restricted driving privilege. Add to this the fact that a skilled cyclist continually scans the environment, turning the head from side to side. This technique, coupled with the field of view required by federal standard, assures that peripheral vision is not impaired by wearing a helmet.

The Hurt Report also provided important information on this issue. It found that of all the opposing vehicles which the motorcycle struck, more than 77 percent were directly in front of the motorcycle and easily within the line of sight of the rider.

Neck Injuries

Opponents of motorcycle helmet use laws often claim that helmets cause neck injuries. These allegations are unfounded and totally inaccurate. Motorcyclists have been wearing safety helmets for more than 40 years. During this period, a number of studies of injury patterns in motorcycle crashes have been made and generally show that a neck injury of any type occurred in less than two percent of the motorcycle crashes investigated. In other words, the incidence of neck injury in crashes is very low compared to that of head injury.

In the USC study, 980 head and neck injuries occurred in the 900 crashes. Of the 980 injuries, only four were attributed to safety helmets and all four were minor injuries. The report found, "Each of the four cases showed that protection from possible fatal injury was achieved, but with a small 'band-aid' type injury."[6] In each case, the helmet prevented possible fatal or critical head injury. Two of the cases involved minor injury to nasal and soft tissues by excessively large helmets rotating forward and contacting eyeglass frames.

The third helmet-associated injury involved a minor abrasion to the lower region of the jaw due to the chin strap when multiple impacts occurred to the helmet. The helmet fully protected the head against a possible critical or fatal injury. The fourth helmet-associated injury was an abrasion to the neck, which occurred when the motorcycle rider over-braked, skidded, and vaulted high-side, landing on his left shoulder and the left side of his head.

The American Medical Association's publication "Head Protection for the Cyclist, A Medical Inquiry" concluded, "...cervical spine injuries are possible, whether or not the cyclist is wearing a helmet, depending upon the circumstances of the accident, <u>but helmets do not of themselves contribute to or worsen the injury</u>."[10]

The report goes on to say, "Based on the currently available evidence, the likelihood of neck injury caused by the helmet is almost impossible, and where it has occurred, the resulting injury has been no more than a minor sprain."[10]

In a study conducted by Frederick P. Rivara and his colleagues in 1991, it was determined that neck injuries were infrequent, and both groups (helmeted and non-helmeted) of motorcyclists were equally likely to have sustained neck injuries.[22]

Rates of Helmet Use

Most motorcyclists are fully aware of the lifesaving value of safety helmets. Those motorcyclists who oppose helmet laws often

say that they never ride without a helmet, but do not want to be told by the State that they must wear one. Yet, data indicate clearly that less than one-half of all motorcyclists involved in crashes are wearing helmets when it is not required by law.

The USC "Hurt" study found a helmet use rate of 40 percent for crash-involved riders.[6] In a survey of non-crash-involved riders, the USC study found that 50 percent of all riders were wearing helmets. The study, "Motorcycle Helmet Use, Incidence of Head Injury, and Cost of Hospitalization," examines 213 victims of motorcycle crashes transported to trauma centers in San Francisco and Oakland, California.[13] It reports that 28 percent of the motorcycle crash patients included in the study were wearing helmets and 72 percent were not.

In universal helmet law States, observational surveys of helmet use generally show close to 100 percent usage. In States without helmet use laws or laws that only cover a specific segment of the riding population, helmet use ranges between 34 to 54 percent. Professor Hurt, in the USC study, determined why the crash victims had decided not to wear a helmet. Fifty-one percent said they did not wear a helmet because they never thought they would be involved in a crash.[6] Certainly, this point of view which reflects the eternal optimism, both figuratively and literally, is dead wrong. If you ride a motorcycle, sooner or later you are going to have a crash. When you do crash, you better have a helmet on, if you want to live to ride again.

Laws Applying Only to Minors

Currently, 22 States, including Kansas have a helmet use requirement for a specific segment of the riding population, usually persons under 18 years of age. Kansas current helmet use law applies only to persons under the age of 18.

Analysis of fatality data for States where laws require young people to wear helmets shows that less than half of the persons under 18 who were killed in motorcycle crashes between 1976 and 1979 were wearing helmets even though it was required by law in their State. This is understandable. It is difficult for a police officer to tell whether a motorcyclist is 17 or younger, and required to wear a helmet, or 18 and older, and not required to wear one. As a consequence, enforcement of the law requiring helmet use by minors is minimal or nonexistent in most jurisdictions, and often helmets are not worn. Partial laws do not work.

The Cost of Helmet Non-Use

It is clear that society bears a heavy burden because of the head injuries resulting from the failure of motorcyclists to wear helmets. Numerous studies have shown hospitalization costs are

higher for crash victims who do not wear helmets than for those who do. Also, riders who do not wear helmets are less likely to have health insurance, thus their medical costs are often borne by the taxpayers. Here is a summary of the findings of some of the studies which have been done on this issue. It is important to note that none of these studies included costs for rehabilitation or remaining disability expenses. The estimated life time rehabilitation and long term care costs for a severe head injury are 4-6 million dollars, most of which is paid for out of tax dollars.

One of the most recently published studies, in the Journal of Emergency Nursing found that the hospitalization charges for the helmeted rider group were $398,298, or $6,637/patient.[13] Charges for the nonhelmeted rider group were $1,852,505, an average of $12,109/patient. The per patient hospital charges for nonhelmeted patients averaged nearly twice the average per patient charge for helmeted patients. The research also shows that 57 percent of the patients listed a government program as the principal payer.

Another study done by Dr. Timothy Bray and his colleagues at the University of California Davis, involved 51 admissions to the orthopedic services between 1980 and 1983.[15] The study found that the cost of hospitalization for these patients averaged $17,704 per case. It also found that 72 percent of the costs of hospitalization were paid by the State of California, with an additional 10 percent being paid by other tax-based sources.

The study titled, "A Comparison of Helmeted and Unhelmeted Motorcyclists Admitted to a Community Trauma Center", by Linda E. Lloyd and colleagues, examined 255 motorcycle operators and passengers who were treated at a Texas trauma center emergency room from February 1985 through August 1986.[16] Hospital charges totaled $2,124,230, ranging for $41 to $163,393 per patient. The average hospital charges for each helmeted motorcyclist totaled $9,032 and for each unhelmeted motorcyclist totaled $12,032.

A current study by Dr. Fredick P. Rivara and his colleagues at the Harborview Medical Center at the University of Washington is entitled "Motorcycle Helmet Use, Injury Outcome, and Hospital Costs: A Population-Based Study of Motorcycle Crash Victims". This study examined 373 motorcycle riders who were involved in crashes for injury and cost outcomes. The findings of this study show that the total cost of hospitalization for all 373 motorcyclists was $5,552,178. The cost for unhelmeted riders was 66 percent greater than that of the helmeted riders ($3,446,810 versus $2,075,368). The average per-patient cost of hospitalization was 35% higher for unhelmeted motorcyclists ($16,732 versus $12,427).[22]

The study, "Motorcycle Helmets - Medical Costs and the Law," conducted by Dr. Norman McSwain and Anita Belles, examines FARS data, studies from Kansas, Louisiana, 10 states, and 5 countries are compared and reported.[19] The authors conclude that without motorcycle helmet legislation, the user rate drops from 99 percent to 50 percent. With reinstatement, the user rate rises above 95 percent. Average hospital stay for helmeted riders was 5.8 days, and for non-helmeted riders 11.8 days. A significant reduction in the average medical costs per case was found when helmet law is in effect. Head injury was the primary cause of death in 40 percent of riders when helmets were used. When helmets were not used, head injury was the primary cause of dea in 60 percent of riders.

A comprehensive study of all motorcycle traffic crashes in the State of Maryland for a one year period found that unhelmeted riders seen at an emergency department were almost twice as likely to have sustained head injury(40 percent) as were helme riders (21 percent). Acute care cost for unhelmeted riders was three times ($30,365) that of helmeted riders.[20]

The Senate Transportation Committee asked if it could be determined how many motorcycle crash injuries result in a head injury and how many of those would require rehabilitation and long term care. That information is not available for Kansas. However, I do have some statistics taken from the Missouri Tra Registry that gives an indication of the number and the cost t the state.

The Missouri Department of Health, Division of Health Resource was asked to project the impact of weakening their law on the number of head injuries and the cost to the state. Their research found the following:

1. From 1988 to 1991, 52.5/year helmeted injured cycli experienced a head injury and 68.3/year non-helmete injured cyclists experienced a head injury.

2. 13.3% of head injured cyclists required extended ca and/or rehabilitation.

3. 42% of these cases indicated government insurance, insurance, or self pay.

4. The current costs to the state for rehabilitation, including extended care, was $52,000 per case.

Using this information, and the assumption that helmet usage would drop from 95% to 50% if the law was weakened, they projected that the number of head injured cyclists that req rehabilitation would increase from 7 to 40 and the cost to t state, just for rehabilitation only, would increase from $3-

to $2,069,600. See graphs #5 and #6. Reversing this procedure will give you an estimate of the percent decrease in severe head injury and cost that Kansas would expect with a full helmet law. The methodology used by Missouri is attached.

These studies make it abundantly clear that unhelmeted motorcyclists incur more head injuries and more severe head injuries than do helmeted motorcyclists. In turn, these injuries require longer and more extensive medical and rehabilitative care with accompanying higher costs. Additionally, data suggest that unhelmeted cyclists are less likely to be able to pay their medical expenses. This is probably due in part to a combination of greater expenses resulting from more severe injuries and a greater likelihood that the unhelmeted rider will be disabled, and unable to work, for a longer period of time.

These data also make it clearly evident that it is not solely the unhelmeted motorcyclists who suffer when they incur head injuries. We all suffer because it is society as a whole that must pay, through increased taxes and insurance premiums, for the additional and unnecessary costs of medical, rehabilitative, and custodial care for many of the head injured motorcyclists.

NHTSA estimates that if there had been a law requiring all motorcycle occupants to wear helmets in Kansas from 1984 through 1992, 77 lives would have been saved. During this same period, we estimate if all motorcycle riders and passengers were required to wear helmets $83.4 million would have been saved including medical and hospital expenses, lost productivity and income, and other injury related expenses. Many of these savings would be realized by State welfare and assistance programs. Not only do helmets save lives but they also save money. This is especially important in this era of severe budget limitations at all levels of government.

In this time when we at all levels of government are looking for ways to reduce the tax burden and the cost of government, I believe that it is entirely appropriate that we should look at the dollars which could be saved by a well-enforced law requiring helmet use by all motorcyclists.

Conclusions

The documented research on helmet use clearly demonstrates that helmets are highly effective in preventing or reducing the severity of head injuries. Unhelmeted riders are 40 percent more likely to sustain a fatal head injury than helmeted riders and are 15 percent more likely to incur non-fatal head injuries.

The research shows that helmet use laws result in extremely high levels of helmet use, while voluntary programs result in substantially lower utilization rates. With enactment of helmet

use laws governing all motorcycle occupants, helmet usage increases to nearly 100 percent. Where helmet use is not required of all riders, it ranges from 34-54 percent.

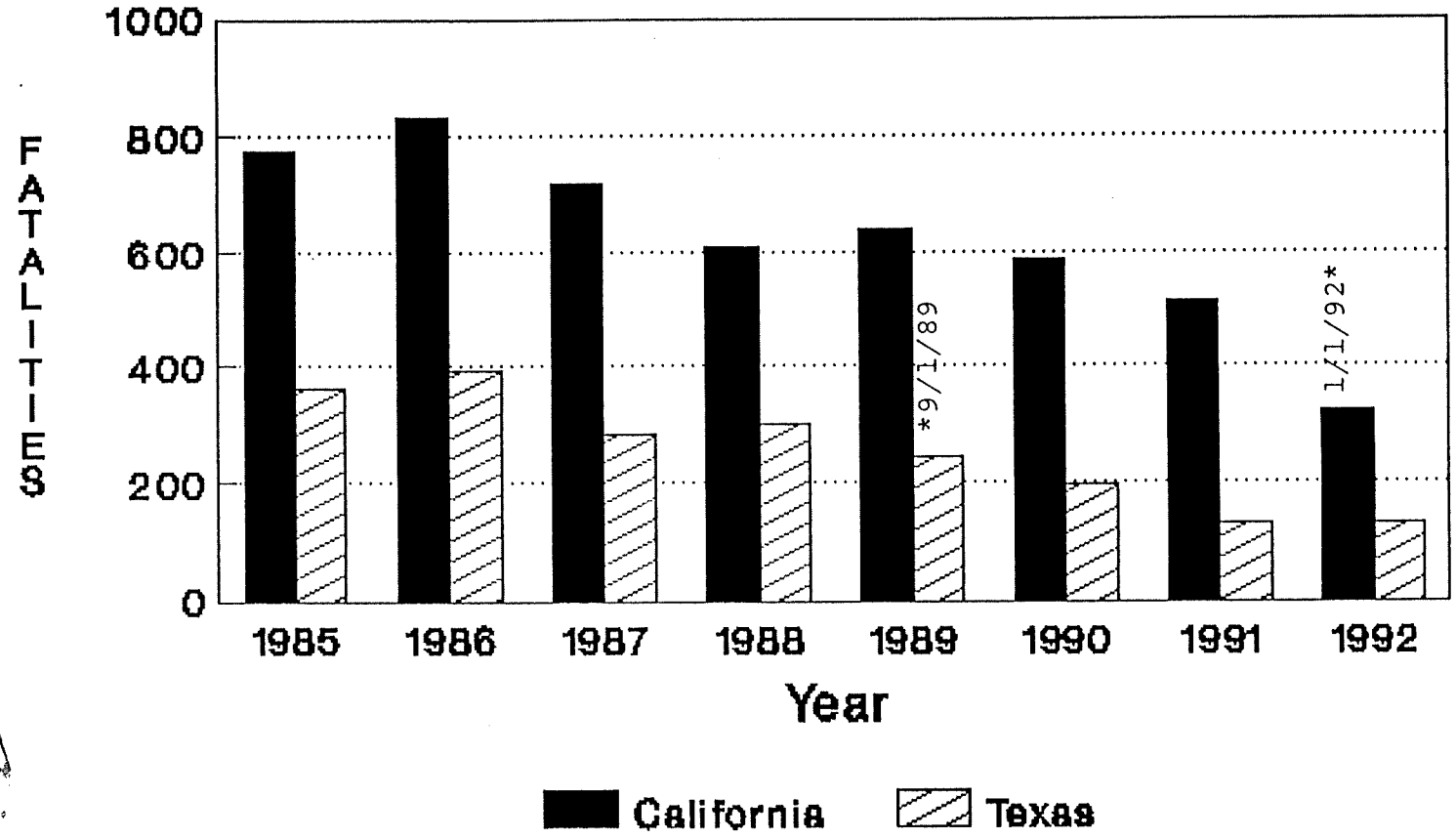
And, it is clear that society bears a heavy financial burden because of the increased number of head injuries resulting from low levels of helmet use.

Status of Section 153

Kansas did not have both a safety belt and full motorcycle helmet law in effect on September 30, 1993. Therefore, the state is subject to a transfer of approximately $1.6 million from its Federal Highway Construction funds to the state's 402 highway safety funds on October 1, 1994. If both laws are not in effect by September 30, 1994, the state is subject to a transfer of approximately $3.1 million on October 1, 1995.

There has been an amendment to Section 153 included in the ISTEA Technical Corrections Bill that has passed the House of Representatives. This amendment would delay implementation of the penalty transfer for one year. The bill has not been acted on by the Senate and the earliest it can be considered is the end of January 1994.

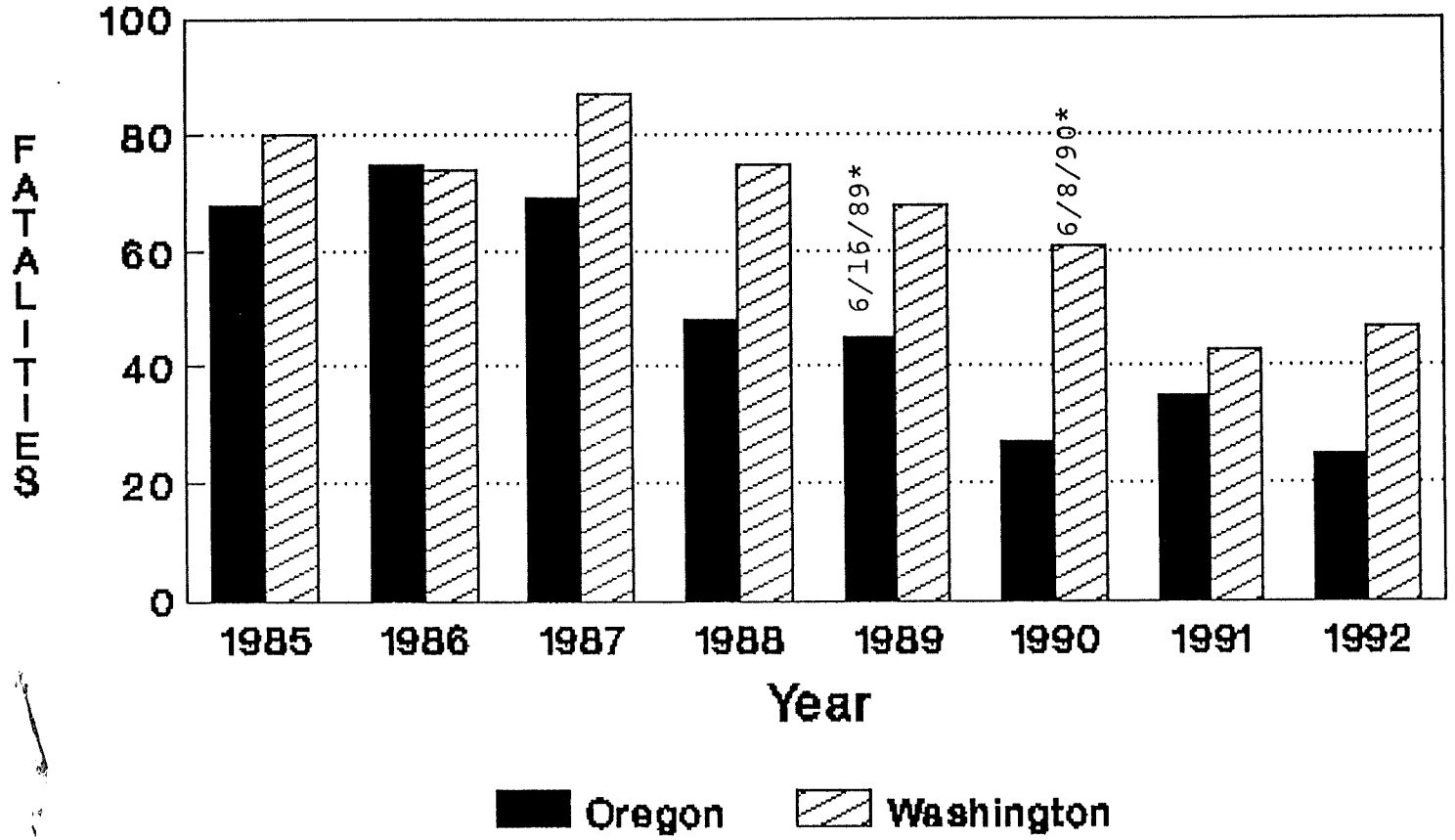
Motorcycle Rider Fatalities
By Year



Graph #1

*Date When Law Became Effective

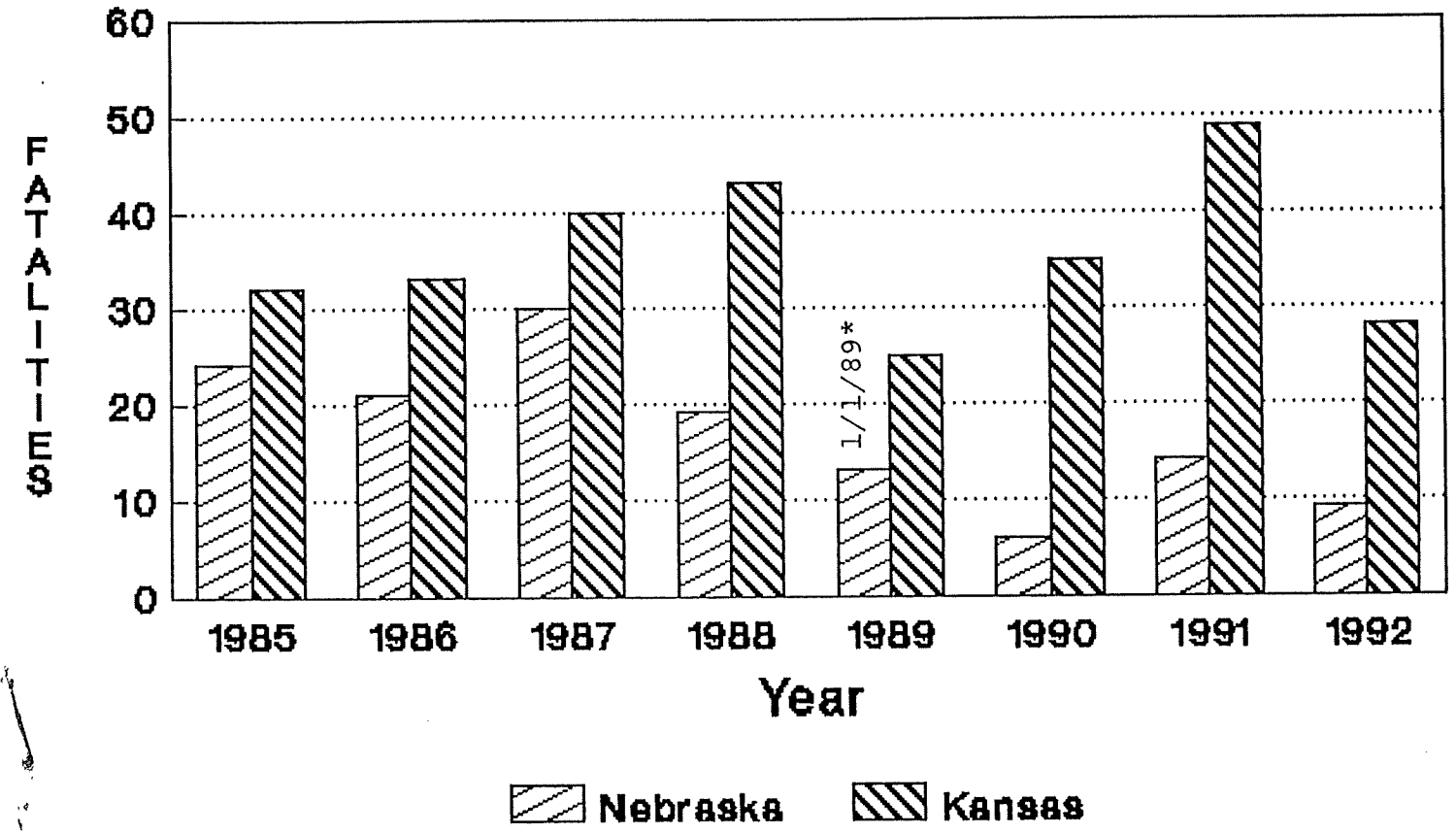
Motorcycle Rider Fatalities
By Year



Graph #2

*Date When Law Became Effective

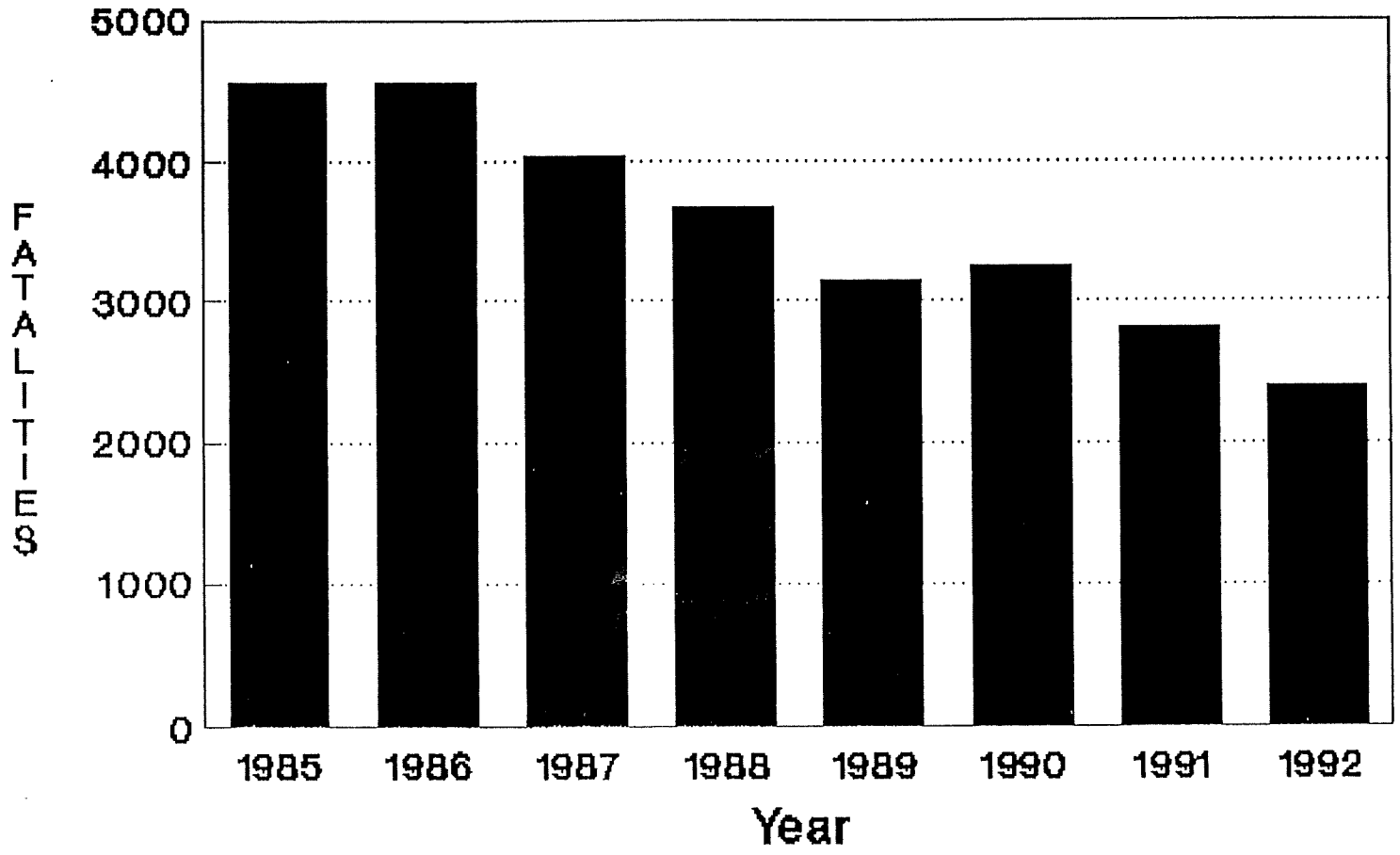
Motorcycle Rider Fatalities
By Year



Graph #3

*Date When Law Became Effective

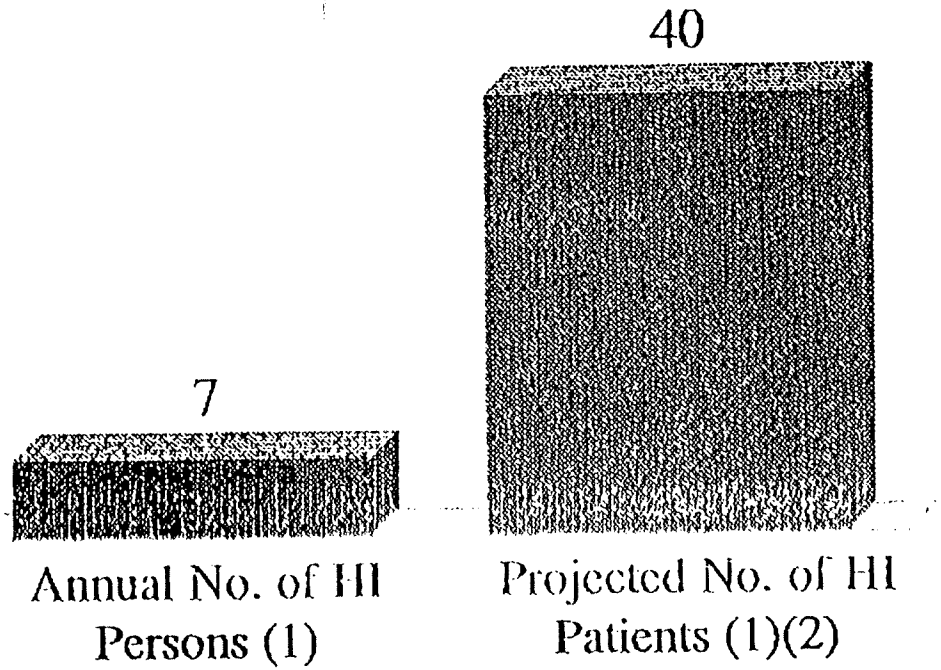
Total National Motorcycle
Fatalities By Year



Graph #4

Current & Projected Number of Head Injuries

if helmet law is weakened

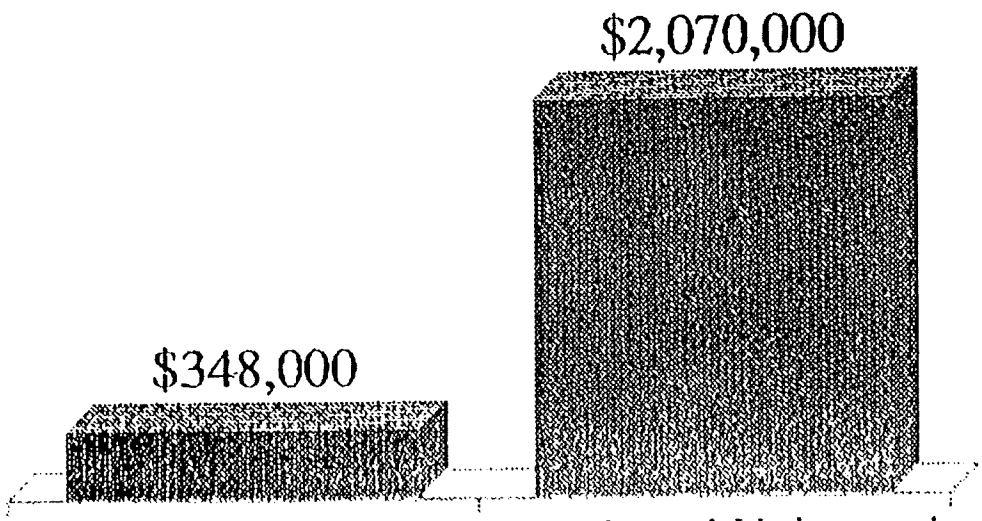


1) No private insurance and requires rehabilitation
2) Assumes reduction of helmet usage from 95% to 50%

MISSOURI DEPARTMENT OF HEALTH

Graph #5

Current & Projected Head Injury Uninsured Rehabilitation Costs if helmet law is weakened



MISSOURI DEPARTMENT OF HEALTH

aph #6

CALIFORNIA MOTORCYCLE STATISTICS

YEAR	FATALITIES	INJURIES	REGISTERED MOTORCYCLES X 100,000	FATALITY RATE PER 100,000 REGISTERED M/C's
1987	744	25,401	7.15	104
1988	603	21,556	6.55	092
1989	620	19,527	6.39	097
1990	569	18,578	6.32	090
1991	512	16,910	6.40	080
1992*	327	12,324	5.95	070 (Predicted) 055 (Actual)

*Helmet law became effective 1/1/92

Table #1

81-91

NEBRASKA
MOTORCYCLES
CRASHES/FATALITIES STATISTICS

	1982	1983	1984	1985	1986	1987	1988	1989*	1990	1991	1992
Fatalities	27	26	25	26	23	31	19	13	6	15	9
Helmet Usage	4	1	3	4	0	4	2	8^	6	8#	7**
Total Injuries	1,192	1,203	1,233	1,210	1,018	959	871	519	500	411	334
Total Crashes	1,214	1,237	1,274	1,239	970	920	857	539	496	413	334
Fatal Crashes	26	26	25	25	20	26	19	12	6	14	9
Injury Crashes	1,031	1,020	1,058	1,015	868	804	756	468	439	363	293
Property Damage Only	157	191	190	199	81	88	82	58	51	35	31
Interstate Crashes	32	39	41	42	25	29	25	18	27	25	18
Licensed Drivers	68,202	65,499	62,542	59,561	55,975	49,113	45,508	42,586	41,485	41,193	41,616
Registrations	47,887	46,445	47,236	43,158	33,077	31,511	29,088	23,560	22,375	20,264~	19,582

* Five improperly worn
# One improperly worn
** Two improperly worn

~ Note: Registration information is under reported due to a delay in entering data into the system. Using 1990 data may more accurately represent state vehicle information.

Source: Dept. of Motor Vehicles, Nebraska Office of Highway Safety, and Nebraska Department of Roads

^ Financial Responsibility Law took effect January 1, 1986
Helmet Law became effective on January 1, 1989.

Prepared by: Nebraska Office of Highway Safety
P.O. Box 94612
301 Centennial Mall South
Lincoln, NE 68509
402/471-2515

V15/93

Table #2

19-19

Rehabilitation Cost: Repeal of Motorcycle Helmet Law, 1993

Method

During periods of enactment of motorcycle helmet laws, average use rates have been reported at 95% (Louisiana), 99% (S. Dakota and Kansas).

A review of motorcycle helmet use and the law (McSwain et.al., 1990) indicates that helmet use averages 50% when helmet use laws are weak (apply to certain ages only) or non-existent.

According to Head and Spinal Cord Injury Registry data, there were an average of 151 head injured motocyclists (drivers or riders) per year during 1988-1991 (excludes readmissions and non-trafficway crashes).

After deleting deaths and transfers and non head-injured, there was a total of 483 cases, 210 (43%) indicating helmet use. In this group there were 52.5/year head-injured-helmeted, and 68.3 /year head-injured with no helmet use or helmet use not known. If, upon repeal of the helmet law, helmet use in Missouri drops from 95% to 50% among all cycle drivers and riders, the head injury rate changes as follows:

Helmeted injured: 50%/95% x 52.5 = 27.6 cases/year

Non-helmeted injured: 50%/5% x 68.3 = 683 cases/year

Extra helmeted head-injured	27.6	- 52.5	=	-24.9
Extra unhelmeted head-injured	683	- 68.3	=	614.7
Total extra head injured/year	710.6	- 120.8	=	589.8

The HSCI data for 1988-1991 also indicate that out of the 483, 64 (13.3%) of head-injured cyclists have a disposition of extended care or rehab. Of the 64 rehab cases, 42% (27/64) indicated government insurance, no insurance, or self pay.

19-20

If these rehab and insured rates are used the following could occur:

Currently:

52.5 helmeted x 13.3% rehab = 7.0
7.0 rehab x 42% no insurance = 2.9

68.3 unhelmeted x 13.3% rehab = 9.1
9.1 rehab x 42% no insurance = 3.8

2.9 + 3.8 = 6.7 uninsured rehab cases
6.7 x $52,000 = $348,400

If helmet law repealed:

27.6 helmeted x 13.3% rehab = 3.7
3.7 rehab x 42% uninsured = 1.6

683 unhelmeted x 13.3% rehab = 90.9
90.9 x 42% uninsured = 38.2

1.6 + 38.2 = 39.8 uninsured rehab cases
39.8 x $52,000 = $2,069,600

Excess uninsured and government costs:

$2,069,600 - $348,400 = $1,721,200

19-21

20

Kansas Chapter of the
American College of Emergency Physicians
~~1300 Topeka Avenue~~ • Topeka, Kansas 66612 • 913) 235-2383
Kansas WATS 800-332-0156 FAX 913-235-5114

November 30, 1993

To: House Transportation Committee

From: Kansas Chapter, American College of Emergency Physicians

Subject: Motorcycle Helmet Legislation

Thank you for the opportunity to express the concerns of emergency physicians in Kansas who endorse motorcycle helmet legislation in our state. These are the people who try their best to mend those individuals who sustain catastrophic injuries from motorcycle accidents. It takes merely moments to recognize which accident victims were wearing helmets and which ones were not.

States that have repealed their helmet laws have seen 25 to 50% increases in mortality. When a state has re-instituted its helmet law, mortality decreased. We must keep in mind that not only do we reduce deaths, but also permanent damage. If we were to tour extended care hospitals and especially those facilities which cater to head injury patients, we would find many individuals who have sustained permanent brain injury from a motorcycle accident.

Rather than dwell on statistics, we wish to share with you the types of injuries that we see with unhelmeted riders. The severity of injury varies greatly, but is usually dramatic. Many times, the victim sustains a "scalping wound" where his hair and scalp are literally peeled from his skull. These victims bleed to death. Victims sustain crush injuries to the skull. The head was not created to sustain impact with pavement at 45 miles per hour. Commonly, the rider sustains horrendous disfigurement as his face impales a hard surface. Most importantly, the brain must absorb a much greater force of impact, thereby causing serious and possible permanent damage. Many times, these victims survive only to become organ donors.

There is little that can be further done to make motorcycling safer. Making cycles drive slower will do little if anything to reduce injury. Most motorcycle injuries occur because a car did not see the cycle and thereby pulls in front of the bike. Most motorcycle accidents occur during the day, in good weather, on good roads in moderate traffic.

We are trying to give the citizens of our great state the finest in emergency care. We cannot resuscitate a dead patient. We ask that the Legislature reinstite helmet laws for our state. Please help to give us a living patient.

Thank you very much for the privilege to present our position.

HOUSE TRANSPORTATION
November 30, 1993
Attachment 20

21

Kansas Highway Patrol
Summary of Testimony
Motorcycle Helmet Issues
Before the
House Transportation Committee
Presented by
Sergeant Terry L. Maple
November 30, 1993

Good morning Mr. Chairman and members of the Committee. My name is Sergeant Terry Maple and I appear before you this morning on behalf of Colonel Lonnie McCollum to let you know the Patrol's stance on the motorcycle helmet issue.

Since the Patrol is a traffic safety organization, we are naturally supportive of measures designed to enhance the safety of the motoring public. We feel that motorcycle helmets,if worn, enhance the safety of riders and passengers. Depending on the content of legislation presented during the upcoming legislative session, the Patrol will in all likelihood, appear in support of mandatory helmet use laws.

In addition to providing safety for riders, a mandatory use law would make enforcement much easier. Law enforcement officers would no longer be required to make an educated guess to determine if a rider or passenger is required to wear a helmet. This clarification would lead to less confusion among the public and law enforcement officers as well.

#######

H. Transp.
11/30/93
Att. 21

22

Mr. Chairman, Ladies and Gentlemen of the committee.

Here we are again. The beginning of the coming session will mark the 28th year that this debate has been going on and regardless of the results of this session we will probably be doing this for another 28 years.

Our opponents will tell you that helmets are the answer to all of the motorcycling problems and that if you just pass a helmet law fatalities and injuries will disappear or at least be greatly reduced.

As usual I must disagree and repeat that helmets do not make any real difference as long as cars keep running over us.

They point out that out of 29 fatilities only five were wearing helmets. Great what did they die of. Of the five helmeted fatalities 4 of them died of head injuries. It could have been five out of five dut the fifth was to burned to tell. Of the other 24 two were unknown so could have been either. Of the other 22, 17 had head injuries. that equals 80% head injuries for helmeted riders and 77% head injuries for unhelmeted riders. Of the 5 helmeted fatalities three had broken necks but as my oppenents said helmets do not break necks. In the 22 unhelmeted deaths only 2 had broken necks both in the same accident. (attachment 1)

There are three types of States. Those that require all people to wear helmets, those that require only minors to wear helmets (age 15 to 21 depending on the State) and those that do not require anyone to wear helmets (CO, IA and IL) and for the propose of this testimony the last two groups will be added together.

There are 25 mandatory helmet states and 25 free states. If you will look at the attached two pages of accident and fatality numbers (attachment 2 and 3) you will see that 2.92% of all accidents in helmet states ended in a fatality as compares to 2.69% of accidents in free states.

The fact that in 1992 non-helmet states had a slightly smaller fatality to accident rate is not what's important but the fact that there is hardly any difference this year or any other year in these rates. If helmets where even 25% effective this would not be so.

If you take the three states that don't have a helmet law for anyone you will you that they have the lowest accident to fatality rate of any states (2.24%) and these states are always in lowest percentage of fatality rates and their states are in the lowest 5 states for fatality rates every year.

The latest study on motorcycle injuries was done at University of N. C. Highway safety Research Center at Chapel , N. C. one of the difference between this and all the others that have been done is that it was not done at selected hospitals but included ALL the motorcycle accidents in N. C. during a three year period by DR. Jane C. Stutts, Highway Safety Reseach Center and DR. Robert Rutledge School of Medicene UNC .

One of the other problems was that M/C's were not compared to other groups, this study does.

Motorcyclists admitted to trauma center had lower injury severity scores compared to other road trauma victims. They required slightly longer hospital stays, but accrued lower hospital charges.

50% of the motorcyclists involved in crashes were operating without a valid license or did not have a m/c license.

49% of motorcyclists admitted to a trauma center for treatment were insured compared to 51% of other road trauma cases and had fewer cases dependent on Medicare/Medicaid (8% versus 14%)

Helmet use was not found to be associate with overall injury severity as measured by the five point KASBCO scale(K=killied, A=serious injury, B=moderate injury, C=minor injury, O=no injury)

Results based on this expanded data base confirm and strengthen the findings already reported. They show that, compared to other road transport patients admitted to N.C. trauma centers, motorcycle operators

A. Experience slightly lower injury severities, as measured by average ISS (11.2 for motorcycle operators, 11.9 for other transport cases.

B. Accrue lower overall hospital charges (an average of $14,993 for motorcycle operators, $16,396 for other transport cases)

C. Are slightly more likely than other road transport cases to carry commercial or private insurance (53.5% versus 50.8%0

D. For the follow-up sample, injured motorcyclists were also more likely to be discharged home land less likely to be discharged to a rehab facility, transferred to another medical facility, or die after being hospitalized (84.8% of m/c were discharged home and 6.7% rehab facility, for other road trauma cases, the corresponding percentages were 80.2% home, 8.0% rehab)

Thank you for your time and consideration.

H. Transp.
11/30/93
AH. 22

MOTOR CYCLE ACCIDENTS FOR 1992

LOCAL CASE #	HELEMET USE	CAUSE
92-2885	NONE	HEAD TRAUMA
92-1148	NONE	CHEST AND ABDOMINAL INJURY
4-9-92	NONE	MASSIVE HEAD TRAUMA
92003483	NONE	MASSIVE HEAD AND CHEST TRAUMA
05162007092	NONE	HEAD INJURY
T96-14-92	HELMET	MASSIVE HEAD AND NECK INJURIES
31-20-92	NONE	CEREBRAL LACERATION
92-0408	NONE	CLOSED HEAD INJURY
50-22-92	NONE	MULTIPLE TRAUMATIC INJURIES, SEVERE TO HEAD
88-9-92	HELMET	TOTAL BODY BURN, GASOLINE TANK EXPLOSION
92015749	NONE	BRAIN HEMORRHAGE
051492-0130	NONE	CLOSED HEAD INJURY
92C59423	NONE	MASSIVE HEAD INJURIES
4118-92	HELMET	PULMONARY HEMORRHAGE, SUBARACHNOID
		HEMORRHAGE,RUPTURED SPLEEN, RIBS FX.,
29-34-92	NONE	RT FEMUR FX., RT TIBIA FX., FIBULA FX.
15-9-92	NONE (DRIVER)	MASSIVE HEAD INJURIES
15-9-92	NONE (PASSENGER)	MASSIVE HEAD AND NECK INJURIES
76-13-92	UNKNOWN	MASSIVE HEAD, NECK AND PELVIC TRAUMA
B-9517	NONE	MASSIVE TRAUMA
		CLOSED HEAD INJURY, LT. OPEN ANKLE FX.,
43-30-92	NONE	RT PULMONARY CONTUSION
92C85888	NONE	FAT EMBOLISM, MULTIPLE FX
		MASSIVE INTROTHORACIC HEMORRHAGE,
		RUPTURED AORTA, CRUSHING CHEST INJURY,
92C87104	NONE	NECK FX., LIMB FX.
92-1582	HELMET	MASSIVE HEAD INJURIES
		SUBDURAL HEMORRHAGE LT SIDE OF BRAIN.
		BROKEN NECK, FX. RT. CLAVICLE, FX RIBS
92-3387	UNKNOWN	LT ANKLE FX
5635-92	NONE	PERFORATION OF CECUM
925100932	NONE	TRAUMATIC ENCEPHALOPATHY, SKULL FX.
92C104698	NONE	CERVICAL SPINE FX.
92-3478	HELMET	MULTIPLE SYSTEM TRAUMA
92-1109	NONE	BRAINSTEM BLEED, CERVICAL FX. C3
		ADULT RESPIRATORY DISTRESS SYN., FX. RT. HIP

STATES THAT DO NOT REQUIRE ALDUTS TO WEAR HELMETS

STATE: WY ACCIDENTS: 254 FAT: 5 FATPERACC: 1.97

STATE: WI ACCIDENTS: 2157 FAT: 40 FATPERACC: 1.85

STATE: UT ACCIDENTS: 917 FAT: 22 FATPERACC: 2.40

STATE: SD ACCIDENTS: 383 FAT: 11 FATPERACC: 2.87

STATE: SC ACCIDENTS: 1368 FAT: 52 FATPERACC: 3.80

STATE: RI ACCIDENTS: 146 FAT: 11 FATPERACC: 7.53

STATE: OK ACCIDENTS: 1129 FAT: 35 FATPERACC: 3.10

STATE: OH ACCIDENTS: 3791 FAT: 113 FATPERACC: 2.98

STATE: ND ACCIDENTS: 192 FAT: 5 FATPERACC: 2.60

STATE: NM ACCIDENTS: 1087 FAT: 33 FATPERACC: 3.04

STATE: NH ACCIDENTS: 554 FAT: 10 FATPERACC: 1.80

STATE: MT ACCIDENTS: 374 FAT: 12 FATPERACC: 3.21

STATE: MN ACCIDENTS: 1361 FAT: 28 FATPERACC: 2.06

STATE: ME ACCIDENTS: 523 FAT: 21 FATPERACC: 4.01

STATE: KS ACCIDENTS: 935 FAT: 29 FATPERACC: 3.10

STATE: IA ACCIDENTS: 1500 FAT: 29 FATPERACC: 1.93

STATE: IN ACCIDENTS: 2279 FAT: 72 FATPERACC: 3.16

STATE: IL ACCIDENTS: 4025 FAT: 104 FATPERACC: 2.58

STATE: ID ACCIDENTS: 467 FAT: 17 FATPERACC: 3.64

STATE: HI ACCIDENTS: 539 FAT: 18 FATPERACC: 3.34

STATE: DE ACCIDENTS: 241 FAT: 14 FATPERACC: 5.81

STATE: CO ACCIDENTS: 1791 FAT: 31 FATPERACC: 1.73

STATE: CT ACCIDENTS: 1130 FAT: 36 FATPERACC: 3.19

STATE: AZ ACCIDENTS: 2196 FAT: 68 FATPERACC: 3.10

STATE: AK ACCIDENTS: 134 FAT: 7 FATPERACC: 5.22

ACCIDENTS = TOTAL NUMBER OF ACCIDENTS IN STATE IN 1992

FAT = FATALITIES IN STATE IN 1992

FATPERACC = PERCENTAGE OF ACCIDENTS THAT ENDED IN FATALITIES IN 1992

2.79 % OF ACCIDENTS IN NON-ADULT HELMET REQUIREMENT STATE'S ENDED IN A FATALITY

STATES THAT DO NOT REQUIRE ANYONE TO WEAR HELMETS

STATE: IL ACCIDENTS: 4025 FAT: 104 FATPERACC: 2.58

STATE: IA ACCIDENTS: 1500 FAT: 29 FATPERACC: 1.93

STATE: CO ACCIDENTS: 1791 FAT: 31 FATPERACC: 1.73

ACCIDENTS = TOTAL NUMBER OF ACCIDENTS IN STATE IN 1992

FAT = FATALITIES IN STATE IN 1992

FATPERACC = PERCENTAGE OF ACCIDENTS THAT ENDED IN FATALITIES IN 1992

2.24% OF ACCIDENTS IN NO HELMET REQUIREMENT STATE'S ENDED IN A FATALITY

STATES THAT REQUIRE EVERYONE TO WEAR HELMETS

STATE: WV ACCIDENTS: 516 FAT: 18 FATPERACC: 3.49

STATE: WA ACCIDENTS: 2044 FAT: 48 FATPERACC: 2.35

STATE: VA ACCIDENTS: 1317 FAT: 40 FATPERACC: 3.04

STATE: VT ACCIDENTS: 115 FAT: 10 FATPERACC: 8.70

STATE: TX ACCIDENTS: 4472 FAT: 134 FATPERACC: 3.00

STATE: TN ACCIDENTS: 1252 FAT: 75 FATPERACC: 5.99

STATE: PA ACCIDENTS: 2651 FAT: 90 FATPERACC: 3.39

STATE: OR ACCIDENTS: 484 FAT: 26 FATPERACC: 5.37

STATE: NC ACCIDENTS: 1822 FAT: 62 FATPERACC: 3.40

STATE: NY ACCIDENTS: 4016 FAT: 114 FATPERACC: 2.84

STATE: NJ ACCIDENTS: 1850 FAT: 42 FATPERACC: 2.27

STATE: NV ACCIDENTS: 710 FAT: 20 FATPERACC: 2.82

STATE: NE ACCIDENTS: 333 FAT: 9 FATPERACC: 2.70

STATE: MO ACCIDENTS: 1477 FAT: 45 FATPERACC: 3.05

STATE: MS ACCIDENTS: 525 FAT: 15 FATPERACC: 2.86

STATE: MI ACCIDENTS: 1842 FAT: 51 FATPERACC: 2.77

STATE: MA ACCIDENTS: 1600 FAT: 33 FATPERACC: 2.06

STATE: MD ACCIDENTS: 1097 FAT: 55 FATPERACC: 5.01

STATE: LA ACCIDENTS: 739 FAT: 33 FATPERACC: 4.46

STATE: KY ACCIDENTS: 1015 FAT: 33 FATPERACC: 3.25

STATE: GA ACCIDENTS: 1687 FAT: 55 FATPERACC: 3.26

STATE: FL ACCIDENTS: 5459 FAT: 175 FATPERACC: 3.20

STATE: CA ACCIDENTS: 13708 FAT: 327 FATPERACC: 2.38

STATE: AR ACCIDENTS: 713 FAT: 27 FATPERACC: 3.79

STATE: AL ACCIDENTS: 1186 FAT: 37 FATPERACC: 3.12

ACCIDENTS = TOTAL NUMBER OF ACCIDENTS IN STATE IN 1992

FAT = FATALITIES IN STATE IN 1992

FATPERACC = PERCENTAGE OF ACCIDENTS THAT ENDED IN FATALITIES IN 1992

2.92% OF ACCIDENTS IN ADULT HELMET REQUIREMENT STATE'S ENDED IN A FATALITY

23

TESTIMONY
11/30/93

MY NAME IS PATTY MILLS. I WAS BORN AND RAISED IN KANSAS AND CURRENTLY RESIDE IN TOPEKA WHERE MY HUSBAND AND I OWN AND OPERATE TOPEKA BLUE PRINT COMPANY. WE ARE BOTH AVID MOTORCYCLISTS, AVERAGING 15-20 THOUSAND MILES A YEAR ON MOTORCYCLES. I RODE AS A PASSENGER FOR EIGHT YEARS PRIOR TO TAKING THE KANSAS DEPARTMENT OF EDUCATION RIDER TRAINING COURSE IN 1984.

IN 1989 I WAS ELECTED TO THE BOARD OF TRUSTEES OF THE AMERICAN MOTORCYCLISTS ASSOCIATION WHICH REPRESENTS 200,000 MOTORCYCLISTS ACROSS THE COUNTRY. MOST RECENTLY I BECAME A MEMBER OF THE INDEPENDENT MOTORCYCLISTS POLITICAL ACTION COMMITTEE THAT IS FORMING HERE IN KANSAS.

I WEAR A HELMET, BUT AS AN INDIVIDUAL MOTORCYCLISTS, A BOARD MEMBER OF AMA, AND A MEMBER OF IMPAC, I OPPOSE MANDATORY HELMET LAWS.

WHILE THE AMA STRONGLY ENCOURAGES ALL MOTORCYCLISTS TO WEAR PROTECTIVE GEAR, WE RECOGNIZE THE FACT THAT THE ADULT RIDER IS FAR MORE QUALIFIED TO MAKE SAFETY DECISIONS SINCE THEY HAVE A VESTED INTEREST IN THEIR OWN SAFETY.

I'VE ALWAYS BEEN PROUD OF THE STATE OF KANSAS AND IT'S LESS INTRUSIVE APPROACH TO THE SPORT OF MOTORCYCLING. WE HAVE AN EXCELLENT RIDER EDUCATION PROGRAM, THAT USUALLY HAS A WAITING LIST, AND WE HAVE LICENSING AND TESTING. THESE MEASURES HELP PREVENT ACCIDENTS, HELMETS DO NOT!

H. Transp.
11/30/93
Att 23

NOT ONLY DOES THE STATE OF KANSAS ENCOURAGE EDUCATION, BUT THE MOTORCYCLING COMMUNITY ITSELF IS MADE UP OF DOZENS OF ORGANIZATIONS SUCH AS AMERICAN MOTORCYCLISTS ASSOCIATION, THE MOTORCYCLE SAFETY FOUNDATION, THE MOTORCYCLE INDUSTRY COUNCIL, MOTORCYCLE RIDERS FOUNDATION, DISCOVER TODAY'S MOTORCYCLING, ABATE AND MANY MORE THAT SPEND LARGE AMOUNTS OF TIME AND MONEY KEEPING TODAY'S MOTORCYCLISTS INFORMED AND EDUCATED. A MOTORCYCLE INDUSTRY COUNCIL SURVEY IDENTIFIED THE AVERAGE MOTORCYCLIST AS 32 1/2 YEARS OF AGE, MARRIED, AND COLLEGE EDUCATED WITH AN INCOME SLIGHTLY IN EXCESS OF $33,000 A YEAR. TODAY'S MOTORCYCLISTS DO HAVE THE FACILITIES NECESSARY TO EVALUATE RISKS AND MAKE DECISIONS IN REGARD TO THEIR SAFETY.

WE ARE NOT A "SOCIAL BURDEN". IF THE UNINSURED RIDER IS THE ISSUE, THEN LET'S DEAL WITH THAT. IF THE UNLICENSED RIDER IS THE ISSUE, LET'S DEAL WITH THAT. IF THE ALCOHOL RELATED ACCIDENT IS THE ISSUE, LET'S DEAL WITH THAT. LET'S NOT PENALIZE ALL MOTORCYCLISTS FOR THE ACTIONS OF A FEW.

I REGRET AND FEAR THAT THE REAL ISSUE IS NO LONGER MOTORCYCLE SAFETY BUT HAS BECOME ONE OF HIGHWAY FUNDING. THE FEDERAL GOVERNMENT HAS TAKEN TO BACKING THE STATES INTO CORNERS IN ORDER TO DICTATE WHAT LAWS THEY SHOULD PASS, NAMELY THE HELMET LAW, OR A PORTION OF THEIR STATE HIGHWAY FUNDS WILL BE DIVERTED TO SAFETY PROGRAMS. I ONLY HOPE THAT THE STATE OF KANSAS, LIKE TWENTY-SIX OTHER STATES LAST YEAR, WILL SEND A CLEAR MESSAGE TO WASHINGTON THAT WE WILL NOT BE FORCED TO PASS LAWS. THE HELMET ISSUE SHOULD BE DEALT WITH ON THE STATE LEVEL WITHOUT INTERFERENCE FROM THE

FEDERAL GOVERNMENT.

PLEASE BE ASSURED THAT THE AMA ALONG WITH OTHER MOTORCYCLE RIGHTS ORGANIZATIONS ARE VIGOROUSLY SEEKING REPEAL AND/OR DELAY OF THE PENALTIES DEFINED WITHIN ISTEA (INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991). MOST RECENTLY THE HOUSE (H.R. 3276) PASSED A ONE YEAR DELAY OF THE PENALTY BUT EVEN MORE ENCOURAGING IS TALK OF AN EXEMPTION OF PENALTIES FOR THOSE STATES THAT HAVE MOTORCYCLE RIDER EDUCATION PROGRAMS. WE WILL BE WORKING HARD TO RETURN THIS ISSUE BACK TO THE STATE OF KANSAS.

PLEASE HELP MAINTAIN OUR FREEDOM OF CHOICE.

THANK YOU.

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