

MINUTES OF THE HOUSE TRANSPORTATION.

The meeting was called to order by Chairperson Gary Hayzlett at 1:35 p.m. on April 4, 2002 in Room 519-S of the Capitol.

All members were present except:

Representative Loganbill, excused

Committee staff present:

Bruce Kinzie, Office of the Revisor
Hank Avila, Legislative Research Department
Ellie Luthye, Committee Secretary

Conferees appearing before the committee:

Dean Carlson, Secretary of Transportation
Edward DeSoignie, Heavy Constructors Association
Bob Totten, Kansas Contractors Association
Pat Hurley, Economic Lifelines
George Barbee, Kansas Consulting Engineers
Woody Moses, Kansas Cement Council, KRMCA, KAPA
Jim DeHoff, Kansas AFL-CIO
Marlee Carpenter, Kansas Chamber of Commerce and Industry
Tom Whitaker, Kansas Motor Carriers Association
Terry Presta, Petroleum Marketers and Convenience Store Association

Others attending:

See attached sheet

HB 3026 - financing for the comprehensive transportation program

Chairman Hayzlett opened hearings on **HB 3026**. Dean Carlson, Secretary of Transportation, was the first presenter. He told the committee this bill would provide a financing package in five ways 1) increase motor fuel taxes by two cents effective June 1, 2002 with the entire amount deposited in the State Highway Fund 2) increase vehicle registration fees an average of three percent 3) increase the state sales and compensating tax rate by 0.25 percent with the entire amount deposited in the State Highway Fund 4) change the demand transfer to be 14 percent of the sales tax collections in the Department of Revenue's account for new car dealers classification 5511 and 5) reduce the sales tax transfer in FY 2003 to zero. He concluded that while there would remain a projected deficit of \$280 million, the proposed financing would significantly reduce the program's dependence on the State General Fund in future years. (Attachment 1)

Edward DeSoignie, Heavy Constructors Association, said **HB 3026** would provide greater assurance that planned highway and bridge improvements under the 1999 Comprehensive Transportation Program would be delivered as promised. He said the State's investment in its public highway and road system has provided modern, safer roads, enhanced the economy by reducing costs of transporting goods and provided good-paying jobs to thousands of men and women throughout the state. He concluded the economic conditions present when the 1999 CTP was enacted into law have changed and this legislation is a needed course correction if the program is to be delivered as intended. (Attachment 2)

Bob Totten, Kansas Contractors Association, Inc., told the committee highway construction provides jobs and economic stimulus to the local communities..not only in the jobs created but also a benefit to the community and the state with a good road. He urged support for **HB 3026** to provide sufficient funding for the 1999 Comprehensive Transportation Program and keep Kansas headed in the right direction. He also included in his testimony a copy of a news report filed by the US News and World Report which explained how the transportation program had kept Kansas economically sound and also presented a copy of a study done by Dr. Michael Babcock, Kansas State University, on the total effects of the highway program. (Attachment 3)

Pat Hurley, Economic Lifelines, said the Governor has proposed one short-term solution, which would be

the elimination of the entire demand transfer taken out of the program and spent elsewhere in FY 03. If passed, this proposal would avoid eliminating any projects this year, however, there is a grave concern that if the Demand Transfer is eliminated entirely, even for a single year, it might prove impossible to restore it again in the following years. During the remainder of the program the total loss of the Demand Transfer would be approximately \$1.5 billion dollars. Therefore, the House Appropriations Committee adopted the subcommittee report recommending introduction of **HB 3026**. He concluded, on behalf of those awaiting the benefits of this program ..jobs, highways, airports, public transit, railroads, he urged support of **HB 3026** and pledged the support from the members of Economic Lifelines. (Attachment 4)

George Barbee, Kansas Consulting Engineers, said **HB 3026** is the answer to providing economic strength to Kansans and to conclude the covenant made to Kansans in the Comprehensive Transportation program. He urged not only committee support but also to become ambassadors in their political caucuses to support this transportation funding concept. (Attachment 5)

Woody Moses presented testimony from the Kansas Cement Council (Attachment 6), the Kansas Ready Mixed Concrete Association, (Attachment 7) the Kansas Aggregate Producers' Association (Attachment 8) He said together these entities provide over 1,200 jobs in Kansas. A study evaluating the 1989 Comprehensive Highway Program concluded the program had a significant positive impact on the States economy during difficult times. Successful completion of the 1999 program will have the same positive impact on the Kansas economy. He concluded **HB 3026** is needed in order to start the process of securing the future of the program.

Jim DeHoff, Kansas AFL-CIO, said the two most beneficial economic programs passed by the Kansas legislature were the 1989 Transportation Plan and the plan passed in 1999 which provided thousands of jobs to workers and their families. Without additional funding, the program will be drastically scaled back which would result in the reduction of jobs and economic opportunities for Kansans. He urged passage of **HB 3026**. (Attachment 9)

Marlee Carpenter, Kansas Chamber of Commerce and Industry, stated the Kansas business community believes that good roads are vital to business development and growth. To that end they are supportive of **HB 3026** so that the 1999 Comprehensive Transportation Program is fully funded and construction promised will be completed. (Attachment 10)

Written testimony was provided by Matthew Ross, Executive Director of the Missouri/Kansas Chapter of American Concrete Pavement Association. (Attachment 11)

There were no other proponents.

The Chair then called on Tom Whitaker, Kansas Motor Carriers Association, who spoke in opposition to **HB 3026**. He said this bill would increase the tax on all motor fuels (including diesel) by \$.02 per gallon, effective June 1, 2002. He told the committee truckers in Kansas currently pay substantial state and federal taxes and gave an example. A 2001 Peterbilt truck tractor and semi-trailer pays a \$.23 (\$.02 more than gasoline) per gallon states diesel tax and a \$.244 (\$.06 more than gasoline) per gallon federal diesel tax. The registration fee is \$1,760, \$550 federal heavy vehicle use tax, a federal excise tax which is 12% on the retail value of the vehicle and approximatel \$3,745 in property taxes. Trucks did not receive any benefits from the Legislature's reduction of vehicle property taxes on automobiles and pickup trucks. Based on the 2000 operating ration reported by the American Trucking Associations, in order to pay the average \$332.77 per truck increase as proposed in **HB 3026** that one truck would have to produce \$97,873.53 in revenue. He concluded the Kansas trucking industry is struggling to make it through the rough economic times and asked the committee to use caution when considering additional taxes on the Kansas trucking industry. (Attachment 12)

Terry Presta, President of Presta Oil Inc., also spoke in opposition to **HB 3026**. He stated that with low gasoline prices and interest rates that are at a 40 year low , it is only a matter of time until state revenues rebound and only a short-term solution is needed until the economy recovers. He said raising taxes 2 cents per gallon would further exacerbate the border disparity along the Kansas/Missouri border which is now 4/5 cents per gallon. Statistics indicate that last year the total consumption of gasoline in the State of Kansas was down for the first time in recent memory. He argued that it is extremely shortsighted to raise

MINUTES OF THE HOUSE TRANSPORTATION COMMITTEE, Room 519-S of the Capitol at 1:35 p.m. on April 4, 2002.

the gasoline tax forever in the face of a short-term shortfall in State revenues. (Attachment 13)

There were no other opponents.

The fiscal note for **HB 3026** was discussed. A copy will be given to each member at the next meeting. Following questions by the committee Chairman Hayzlett closed the hearings on **HB 3026**.

Chairman Hayzlett adjourned the meeting at 3:00 p.m. The next meeting of the House Transportation Committee will be Tuesday, April 9, 2002.

HOUSE TRANSPORTATION COMMITTEE GUEST LIST

DATE: April 4, 2002

NAME	REPRESENTING
George Barbee	Ks Consulting Engrs
Scott Heidner	" " "
BUD BURKE	HIGHWAY 69 ASSOCIATION
Nancy Bogina	KDOT
Bill Watts	KDOT
Dean Carlson	KDOT
MARY E TURKINGTON	Transportation 2000
Marie Carpenter	KCCI
Jim McHaff	KATL-CEO
Ken Peterson	Ks Petroleum Council
Terry Presta	PMCA
Tom Palace	PMCA
Wayne Reed	PMCA
James Whaley	Economic Solutions
Bob Toffen	Ks Contractors Association
Edward DeSoignie	Heavy Constructors Association
Michael Unt	PMCA
TOM WHITAKER	Ks Motor Carriers Assn
Ken Leicht	Ks Motor Carriers Assn / Frito-Lay

HOUSE TRANSPORTATION COMMITTEE GUEST LIST

DATE: 4/4/02

NAME	REPRESENTING
Christi Stewart	KS Motor Carriers Assoc
Stephanie Neal	KS Governmental Consulting
GARY DAVENPORT	KS Motor Carriers Assn
Cindy Hermes	Legislator
Woody Moses	KAPA - KRCMCA
MIKE TAYLOR	City of Wichita
LARRY R BAZZ	LKM
Wendy Harris	KAPA - KRCMCA
Todd M. LaTorella	MO/KS Chpt., American Concrete Pavement Assoc.



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E. Dean Carlson
Secretary of Transportation

Bill Graves
Governor

**TESTIMONY BEFORE
HOUSE TRANSPORTATION COMMITTEE**

**REGARDING HOUSE BILL 3026
PROVIDING FINANCING FOR THE
COMPREHENSIVE TRANSPORTATION PROGRAM**

April 4, 2002

Mr. Chairman and Members of the Committee:

I am E. Dean Carlson, Secretary of the Kansas Department of Transportation. I want to thank you for the opportunity to appear before you today in support of House Bill 3026.

House Bill 3026 provides a financing package for the Comprehensive Transportation Program that would: (1) Increase motor fuel taxes by two cents effective June 1, 2002 with the entire amount deposited in the State Highway Fund, (2) Increase vehicle registration fees an average of three percent, (3) Increase the state sales and compensating tax rate by 0.25 percent with the entire amount deposited in the State Highway Fund, (4) Change the demand transfer to be 14 percent of the sales tax collected on "new and used" vehicles starting in FY 2004. (The calculation was based on 14 percent of the sales tax collections in the Department of Revenue's account for new car dealers, classification 5511.), and (5) Reduce the sales tax transfer in FY 2003 to zero. The projected impact on the agency's revenues for FY 2003 would be a decrease of \$11.4 million. While there remains a projected deficit of \$280 million, the proposed financing would significantly reduce the program's dependency on the State General Fund in future years. (See attached Cash Flow Table.)

This financing package does not remedy the current projected deficit, but prevents the immediate need to reduce the Comprehensive Transportation Program through project cuts. If this proposal or a similar funding mechanism cannot be provided during the 2002 Legislative Session to offset anticipated demand transfer reductions, it will be necessary to begin making adjustments and reductions in the program to ensure that our efforts are focused on what, in reality, can be produced with available revenues. Additional reductions on the demand transfer without providing some form of replacement revenues will essentially end the possibility of successfully completing the entire Comprehensive Transportation Program as we know it today.

Because transportation is so critical to the Kansas economy, I believe this bill warrants your favorable consideration as a part of overall deliberations addressing this year's tight budget issues.

In closing, I would again express my support for House Bill 3026 and ask for your favorable action on this bill. That concludes my testimony. I will be glad to try and respond to any questions that you may have.

House Transportation Committee
April 4, 2002
Attachment 1

KDOT
All Agency Funds

Scenario: Reduce the Sales Tax Transfer to zero in FY 2003 and fix at approx \$22 million thereafter

See Notes at the bottom

Increase other taxes as detailed below

Current bond strategy is to sell bonds as needed for liquidity and to avoid negative arbitrage.

System Enhancement projects are still preliminary until agreements between KDOT and the respective cities and counties are finalized.

Updated Construction Program, Budget Submission, & March 2002 Revenue estimates

(\$000)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL FY 2000-2009
BEGINNING BALANCE	559,875	782,177	1,004,609	612,929	406,000	218,911	335,974	434,012	278,308	206,817	559,875
Resources											
Motor Fuel Taxes	356,069	356,399	373,080	413,891	434,368	440,071	444,251	448,432	452,611	456,791	4,175,963
SGF (Sales Tax) Transfer	62,240	51,709	94,559	-	22,796	23,593	24,478	25,396	26,348	27,337	358,456
Sales & Compensating Tax	88,598	89,241	93,548	192,387	199,116	205,927	214,032	221,881	230,648	239,767	1,775,146
Registration Fees	134,289	132,439	131,000	136,990	139,050	141,110	143,170	145,230	147,290	149,350	1,399,918
Drivers Licences Fees	8,565	7,875	7,875	7,875	7,875	7,875	7,875	7,875	7,875	7,875	79,441
Special Vehicle Permits	510	484	484	484	484	484	484	484	484	484	4,867
Interest on Funds	43,362	51,354	33,240	24,242	12,560	18,891	24,805	24,884	9,198	5,922	248,457
Sales of Land & Buildings	908	245	300	300	-	-	-	-	-	-	1,753
Useable Condemned Equipment	2,162	1,256	1,567	1,567	1,567	1,567	1,567	1,567	1,567	1,567	15,953
Insurance Reimbursement	359	490	424	424	424	424	424	424	424	424	4,244
Publications	153	179	160	160	160	160	160	160	160	160	1,614
Misc. Revenues	7,885	2,010	1,940	2,021	2,671	3,173	3,654	4,168	4,692	5,064	37,277
Transfers:											
State Vehicle Registration	707	712	712	712	712	712	712	712	712	712	7,114
Motor Carrier Fund Excess	3,125	3,267	3,267	3,267	3,267	3,267	3,267	3,267	3,267	3,267	32,527
Motor Carrier Property Taxes	11,182	10,343	10,447	10,447	10,624	10,805	10,989	11,175	11,365	11,559	108,935
Other Transfers	1	1	-	-	-	-	-	-	-	-	2
Subtotal	720,116	708,002	752,603	794,767	835,675	858,059	879,869	895,657	896,642	910,278	8,251,667
Federal and Local Construction Reimbursement											
Federal Reimbursement - SHF	234,060	222,427	191,688	217,547	234,432	191,156	198,714	183,492	274,479	290,425	2,238,419
Local Construction - Federal	63,089	53,130	66,098	95,504	73,882	49,848	45,566	49,946	53,754	56,544	607,362
Local Construction - Local	17,968	17,416	26,204	31,046	30,288	26,214	15,161	17,833	17,559	19,652	219,341
System Enhancements: Local	1,268	2,062	-	24,907	28,105	44,227	71,785	65,456	64,046	56,308	358,164
Miscellaneous Federal Aid	10,079	10,295	10,213	10,359	10,368	10,371	10,427	10,910	11,339	11,201	105,562
Subtotal Federal & Local	326,465	305,330	294,203	379,363	377,076	321,816	341,652	327,636	421,176	434,130	3,528,848
Total before Bonding	1,046,581	1,013,332	1,046,806	1,174,130	1,212,751	1,179,875	1,221,521	1,223,293	1,317,818	1,344,408	11,780,515
Bond Sales (par)	325,000	350,000	-	-	-	300,000	297,000	-	-	-	1,272,000
Issue Costs/Premium/Discount/Acc Int.	450	4,848	-	-	-	-	-	-	-	-	5,298
Net from Bond Sales:	325,450	354,848	-	-	-	300,000	297,000	-	-	-	1,277,298
TOTAL RECEIPTS	1,372,031	1,368,180	1,046,806	1,174,130	1,212,751	1,479,875	1,518,521	1,223,293	1,317,818	1,344,408	13,057,813
AVAILABLE RESOURCES	1,931,906	2,150,357	2,051,415	1,787,059	1,618,751	1,698,787	1,854,495	1,657,305	1,596,126	1,551,225	13,617,688

The sales tax transfer in FY 2003 is reduced to zero and fixed at \$22 million thereafter (14% of new & used car sales)
Increase taxes as follows

Increase the sales and compensating use tax by 1/4 cent deposited directly to the State Highway Fund

Increase motor fuel taxes 2 cents effective 6/1/2002 - entire increase to the State Highway Fund

Increase registration fees such to generate a 3% increase in revenues

NOTE: Reduction of \$40 million has been made in program set-aside expenditures

EXPENDITURES:

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	FY 2000-2009
Maintenance											
Routine Maintenance:	102,428	106,250	107,181	111,232	116,925	120,023	123,276	126,740	130,377	134,106	1,178,538
Substantial Maintenance:	172,432	146,414	176,951	182,643	182,465	188,578	195,303	203,016	211,178	219,618	1,878,598
Total Maintenance	274,860	252,665	284,132	293,875	299,390	308,601	318,579	329,756	341,555	353,724	3,057,136
Construction											
Major Modifications & Priority Bridges											
Construction Contracts	295,226	252,286	419,482	341,905	376,948	319,520	221,632	181,729	224,976	237,841	2,871,544
CE & PE	72,842	81,275	88,282	89,251	90,660	82,816	81,259	88,200	80,852	79,922	835,359
Total Major Modifications	368,068	333,560	507,764	431,156	467,608	402,336	302,891	269,929	305,828	317,763	3,706,903
System Enhancements											
State Expenditures	40,950	95,559	117,084	98,816	91,667	122,214	238,627	217,983	172,666	136,112	1,331,679
Total Construction	409,018	429,119	624,848	529,972	559,275	524,550	541,518	487,912	478,494	453,875	5,038,582
Modes											
Aviation	653	3,590	1,823	4,300	3,544	3,363	3,242	3,161	3,108	3,072	29,857
Public Transit	7,536	7,071	11,201	10,455	10,555	10,655	10,655	11,755	13,255	13,055	106,194
Rail	2,588	1,656	6,875	3,610	3,658	4,167	5,989	6,532	4,092	4,487	43,655
Total Modes	10,777	12,317	19,899	18,365	17,758	18,186	19,887	21,448	20,455	20,614	179,706
Local Support											
SC&CHF	151,450	154,204	154,957	154,845	156,427	158,293	159,994	161,587	163,183	164,781	1,579,722
Local Federal Aid Projects	78,622	58,347	90,079	121,000	92,156	61,893	56,957	62,433	67,193	70,680	759,359
Local Partnership Programs	19,555	21,735	22,799	23,572	24,418	25,216	26,402	27,609	28,812	29,250	249,367
City Connecting Links	2,784	2,994	3,360	3,360	3,360	3,360	3,360	3,360	3,360	3,360	32,658
Agency Operations	6,257	6,827	7,506	7,512	7,820	7,982	8,253	8,534	8,725	8,920	78,336
Other											
Total Local Support	258,668	244,107	278,702	310,289	284,181	256,744	254,966	263,523	271,272	276,992	2,699,443
Management											
Buildings	46,041	51,706	54,120	51,087	59,865	64,120	66,159	66,097	65,981	65,454	590,629
Total	6,190	3,656	11,429	7,616	8,315	8,375	7,309	7,981	8,080	8,184	77,136
	52,232	55,362	65,549	58,704	68,180	72,495	73,468	74,078	74,061	73,638	667,766
Transfers Out											
	50,235	42,637	49,511	49,500	50,732	52,077	53,488	54,991	56,569	58,187	517,928
TOTAL before Debt Service	1,055,791	1,036,207	1,322,641	1,260,704	1,279,516	1,232,653	1,261,904	1,231,707	1,242,406	1,237,029	12,160,560
Debt Service											
CHP Bonds	85,340	85,333	85,314	85,321	85,286	85,290	85,256	85,225	85,233	85,222	852,821
CTP Bonds	8,597	24,208	30,530	35,034	35,038	44,870	73,323	62,064	61,670	67,770	443,103
	93,937	109,541	115,844	120,355	120,323	130,160	158,579	147,289	146,903	152,992	1,295,923
TOTAL EXPENDITURES	1,149,728	1,145,749	1,438,485	1,381,059	1,399,840	1,362,813	1,420,484	1,378,997	1,389,309	1,390,021	13,456,484
ENDING BALANCE	782,177	1,004,609	612,929	406,000	218,911	335,974	434,012	278,308	206,817	161,204	161,204
Minimum Ending Balance Requirement	166,807	305,494	323,970	393,769	424,076	362,439	279,612	287,154	327,190	441,555	441,555
AVAILABLE ENDING FUND BALANCE:	615,370	699,115	288,959	12,231	(205,165)	(26,466)	154,400	(8,846)	(120,373)	(280,352)	(280,352)
											Total
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	FY 2000-2009

NOTE: Required Ending Balances reflected.

1. Amounts required to satisfy bond debt service requirements
2. Funds allocated by statute for distribution to specific programs
3. A calculation of a necessary reserve to complete CTP projects
4. An amount necessary to provide for orderly payment of agency bills.

The sales tax transfer in FY 2003 is reduced to zero and fixed at \$22 million thereafter (14% of new & used car sales).
 Increase the sales and compensating use tax by 1/4 cent deposited directly to the State Highway Fund
 Increase motor fuel taxes 2 cents effective 6/1/2002 - entire increase to the State Highway Fund
 Increase registration fees such to generate a 3% increase in revenues
 NOTE: Reduction of \$40 million has been made in program set-aside expenditures



The Heavy Constructors Association

of The Greater Kansas City Area



TESTIMONY OF EDWARD DeSOIGNIE BEFORE THE HOUSE TRANSPORTATION COMMITTEE IN SUPPORT OF HOUSE BILL 3026

OFFICERS

JIM KISSICK
President

KEVIN FAHEY
Vice President

JOHN O'DONNELL
Treasurer

EDWARD R. DeSOIGNIE
Executive Director

JAMIE GREEN
Assistant Executive Director

DIRECTORS

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W. E. CLARKSON, JR.
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HOWIE SNYDER
KEVIN FAHEY
Concrete Paving Division

GREG KAAZ
MICHAEL PURSELL
Excavation Division

DAVID BEEMER
JERRY WIEDENMANN
Utility Division

Thank you Mr. Chairman. My name is Edward DeSoignie. I am the Executive Director of the Heavy Constructors Association of the Greater Kansas City Area. The Heavy Constructors represent over 150 companies in the heavy, highway and utility construction industry in Kansas and Missouri.

We thank you for the opportunity to appear in support of House Bill 3026. It is our belief that House Bill 3026 would provide greater assurance that planned highway and bridge improvements under the 1999 Comprehensive Transportation Program (CTP), would be delivered as promised.

The Heavy Constructors Association is one of the many organizations that comprise Economic Lifelines and that worked with the Governor and Legislature on passage of the CTP. We stand before you today committed to delivering the CTP projects through the efforts of thousands of men and women in the construction industry. However, commitment alone cannot get the job done. It takes dollars.

The State's investment in its public highway and road system has provided modern, safer roads, enhanced our economy by reducing costs of transporting goods and provided good-paying jobs to thousands of men and women throughout our state. The state's highway programs have helped us weather economic downturns while providing needed facilities for the traveling public. This was the situation in 1992 when the Wall Street Journal observed the Kansas economy was in better shape than its neighbors due in large part to highway projects being constructed under the Kansas Comprehensive Highway Program.

Unfortunately this record of achievements is now threatened. The economic conditions present when the 1999 CTP was enacted into law have changed and changed drastically. We believe the legislation before you is a needed course correction if we are to deliver the Program as intended. We believe that maintaining faith with the public on promised work is critical. We ask that you report House Bill 3026 favorable for passage.

Thank you again for the opportunity to appear before you.

House Transportation Committee

April 4, 2002

Attachment 2

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Testimony

by the Kansas Contractors Association

before the House Transportation Committee regarding

HB 3026

April 4, 2002

Mr. Chairman and members of the House Transportation Committee, I am Bob Totten, Public Affairs Director for the Kansas Contractors Association. Our organization **represents over 400 companies** who are involved in the construction of highways and water treatment facilities in Kansas and the Midwest.

Today, I want to thank you for allowing me to testify in support of House Bill 3026. Our organization's board of directors met this morning and authorized me to speak in favor of this measure as it addresses the financial support necessary to keep the transportation program in place as it was passed in 1999.

The contractors of this state are not anxious to raise taxes however when you consider the economic impact the transportation program has on the economy, the need to raise taxes outweighs the alternative.

House Transportation Committee
April 4, 2002
Attachment 3

I am sure you have heard this all before but it needs to be restated. The transportation program provides jobs which in essence provides taxes to be collected by the state. Construction workers pay income taxes. The companies they work for pay corporate income taxes and property taxes on the equipment they use. If you cutback the program, the taxes collected through the property taxes, income taxes and corporate taxes will decrease. This will cause a spiraling situation and will require the state to increase taxes even more or make further cuts. This curtailment in construction in Kansas could hurt the Kansas economy more than it is now.

In the 1989 program, a news report filed by the US News and World Report explained how the transportation program kept Kansas economically sound. I have attached a copy of that news article which was published in 1991. In one segment of the report, it said that "as highway money worked its way through Kansas's economic bloodstream, personal income climbed at 2.4 percent, more than twice the national average."

That same information is documented in a Kansas State study produced by Dr. Michael Babcock on the total effects of the highway program. His study completed in June of 1997 says that 117 thousand jobs were created during the lifetime of the 1989 Program. It also found that for each dollar spent on highway construction \$2.55 cents was returned to the economy. We believe that same effect is happening with the transportation program we presently have in place now.

The impact that having a construction program has on local communities is also astounding. I recall a comment one of your colleagues told me ten years ago...and at that time he was against the funding of the highway program. He changed his mind once a road was rebuilt in his community. He said while the construction workers were

in town, the Cream Cup was busy all the time, the motel was full and the mechanic in town got extra work. Not only did his community experience an upturn in the economy that summer, but it also got a good, safe highway to boot.

I have further information on that matter and your chairman mentioned it several weeks ago. One of our contractors Jake Klaver owns a small firm from Kingman, known as Klaver Construction wrote to Chairman Hayzlett and some of your colleagues about work his firm had done in various counties. Jake did some research on some projects his firm conducted in 2001. In the letter to Chairman Hayzlett, Mr. Klaver said:

During 2001, our company was involved in two Kearney County KDOT projects on which we spent, conservatively \$351,962. As a subcontractor, our company did the box culvert construction and ditch liner which represented only a portion of the job. This sum can be broken down as follows: \$316,361 on ready-mix concrete; \$22,137 on motels; \$13,464 on meals; and an untold but significant amount on fuel at local outlets.

This type of story can be told over and over by many of our state contractors...

And it is same story. Highway Construction provides jobs and economic stimulus to the local communities... and not only are there jobs created but there is also a benefit to the community and the state with a good road.

We urge you to pass HB 3026. It provides sufficient funding for the 1999 Comprehensive Transportation Program and keeps Kansas headed in the right direction. I will stand for questions.

How Kansas created good jobs without busting the budget

It's lunchtime in Topeka, Kan., and there's no recession at the Country Boy restaurant. Pickup trucks are swinging in and out of the parking lot, construction workers are wolfing down ham and beans, and the cash register is chiming a steady, prosperous tune.

Anyone who doubts that infrastructure spending can jump-start an economy should visit the Jayhawk State, where a \$2.6 billion highway program has created 3,400 construction jobs

man estimates that Clarkson has \$25 million worth of trucks, graders and pavers on the 10-mile construction site. Were it not for the highway program, Clarkson says, he might be unloading some of that equipment. Instead, he's thinking about buying more.

Ironically, Kansas's highway makeover wasn't sold as medicine for a sick economy. It was passed by the state legislature in 1989, a year before America skidded into recession, and was primarily conceived to fix up the

ing a torrent of dollars through checks, books and cash registers. In what economists call the "multiplier effect," construction workers started buying boots and tools, contractors leased new equipment and engineering firms started placing help-wanted ads. As the highway money worked its way through Kansas's economic bloodstream, personal income climbed at 2.4 percent, more than twice the national average last year.

But fiscal stimulus isn't the only lesson from Topeka. In a time of tax revolts and deficit deadlock, Kansas lawmakers figured out how to finance a massive public-works program—and get voters to pay for it. About half the program is financed by user fees, including a 7-cent hike in the gasoline

tax. An additional fourth comes from a quarter-cent increase in the state sales tax. Only a fifth involves debt—about \$600 million in bonds to be paid off over the next 20 years. The total tax increase will work out to about \$100 per person during the program's peak years in the mid-1990s. "There was no smoke and mirrors," says Transportation Secretary Michael Johnston, who co-sponsored the bill as a state senator in 1989. "When we laid out the needs and the cost, voters in my district didn't even hiccup."

Can the nation travel down the same road as Kansas? Deb Miller, the chief planner for Kansas's Transportation Department, is wary of claims that infrastructure is an economic cure-all. For one thing, other Americans might not be as passionate

about roads as the residents of Kansas, a state of small towns, lonely prairies and the nation's fourth-largest highway network. "When you live in a rural community, it's not uncommon to drive 40 miles for dinner at night," says Miller. "People can get very emotional about roads." But, she adds, a productive asset financed thoughtfully is a sound investment anywhere. "One of the big mistakes we've made in the American economy is we didn't spend enough on long-term investments. We've got to catch up sooner or later." ■

BY DAVID HAGE



"COTT GOLDSMITH FOR /SHEW"

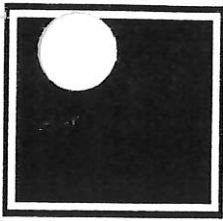
Paving the way. Road crews work on a new section of highway in Kansas.

since August 1991 and helped trim the unemployment rate to 4 percent, fourth-lowest in the nation. Says Stanley Scudder, who faced joblessness three years ago and now runs a bridge-building firm with 30 workers, "My company wouldn't exist without the highway bill. Period."

Along Interstate 70 in north Topeka, 150 workers in hard hats and festive T-shirts are pouring concrete and hammering up bridge supports on a sunny September morning. All owe their jobs to the state highway program, says Don Clarkson, vice president of Clarkson Construction Co., the project's general contractor. A fore-

state's 135,000 miles of patched and pitted blacktop. Kansas faced the same glaring infrastructure needs that the rest of the nation now faces: Some 30 percent of its bridges had outlived their 50-year life expectancies, and freeways in major cities such as Wichita were carrying three to four times the traffic loads for which they were designed.

Boosting incomes. Then serendipity struck. As the nation slid into recession during the second half of 1990, highway money began to course through the Kansas economy. Road expenditures leapt from \$293 million in 1989 to \$429 million in 1991. send-



KLAVER CONST. COMPANY, INC.

February 4, 2002

Rep. Gary Hayzlett
State Capitol Building
Room 115-S
Topeka KS 66612

Re: KDOT Projects in Kearny County

Dear Rep. Hayzlett:

We are writing to encourage your support of significant highway funding during the current legislative session. We realize the budget shortfalls the state is facing this year create a daunting job for the legislature, but would like to point out what a strong highway program means to the state and, more specifically, to your district.

During the year 2001, our company was involved in two Kearny County KDOT projects, on which we spent, conservatively, \$351,962. As a subcontractor, our company did the box culvert construction and ditch liner which represented only a portion of each job. This sum can be broken down as follows: \$316,361 on ready-mix concrete; \$22,137 on motels; \$13,464 on meals; and an untold but significant amount on fuel at local outlets (we don't break out fuel by job). We want to emphasize that this money was spent entirely within your district.

We think it is important to note that we are a relatively small company (annual sales of about \$10 million) and primarily a subcontractor. Knowing that we are such a small part of the highway construction industry in Kansas, one can easily understand what a significant impact the total highway program has on the state's economy as a whole.

We understand this is a difficult time for Kansas and that there are many worthy programs competing for limited dollars. We ask, however, that during your deliberations you keep in mind that funds spent on highway construction are not only an investment in the future, they also significantly and positively impact the local economies which are the beneficiaries of the projects, and this in turn multiplies itself many times throughout the state's economy as a whole. Last, but certainly not least, a robust highway program creates jobs which in turn create taxpayers.

P. O. Box 272
Kingman, Kansas 67068
(316) 532-3183
(316) 532-2924 Fax



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16. Abstract The Kansas Comprehensive Highway Program (CHP) was an eight year program of highway construction beginning July 1, 1989 and ending June 30, 1997. Overall funding totaled \$4 billion. This study measures the economic impact of the \$2.86 billion used for construction of K jurisdiction projects. The two objectives were: 1) Measure the DIRECT output, income, and employment impacts by highway improvement type of the CHP. 2) Measure INDIRECT and INDUCED output, income, and employment impacts by highway improvement type of the CHP. The output impact is the increase in Kansas production as a result of the CHP. The income impact is the increase in Kansas wages and salaries in response to an increase in the income of the workers employed on CHP construction projects. The economic impact of the CHP (K Jurisdiction) highway construction contracts as measured by output is \$7.4 billion. The economic impact of the CHP (K jurisdiction) highway construction contracts as measured by income is \$1.4 billion. The economic impact of the CHP (K jurisdiction) highway construction contracts as measured by employment is 117,820 full time equivalent jobs. Although the economic impacts measured in this study are considerable, it should be noted that highway investment yields many other benefits to the highway users that are beyond the scope of this project. For example, the highway improvements that reduce congestion can result in reductions in vehicle operating costs such as maintenance, fuel, tires, and depreciation. These improvements can also reduce travel times and result in lower highway accident costs. This study also did not examine the economic impact of such items as preliminary engineering, utility adjustments, right-of-way acquisitions, construction engineering, and construction projects not on the state highway system. Further research is needed to quantify these user benefits and the impact of these and other activities.					
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ECONOMIC IMPACTS OF THE KANSAS COMPREHENSIVE HIGHWAY PROGRAM

Final Report

Prepared for

Kansas Department of Transportation

by

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Kansas State University
Manhattan, Kansas

June 1997

NOTICE

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DISCLAIMER

The contents of this report reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the views or the policies of the State of Kansas. This report does not constitute a standard, specification or regulation.

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EXECUTIVE SUMMARY

The final contracts for construction of the Kansas Comprehensive Highway Program (CHP) will be awarded by June 30, 1997. As the executive and legislative branches of the Kansas government consider the next state highway program, it is appropriate to measure the construction economic impacts of the CHP to facilitate an evaluation of the state's investment in highways.

The CHP was established by passage of 1989 House Bill 2014 and the first contracts for construction were awarded in fiscal year 1990. After the final CHP contracts for construction are awarded, approximately \$4 billion will have been spent on CHP projects. After deducting from the \$4 billion the costs for preliminary engineering, utility adjustments, right-of-way acquisition and construction engineering, the remaining \$3.18 billion was devoted to as let construction expenditures. After deducting from the \$3.18 billion the as let costs for construction projects of jurisdictions off the state highway system, the remaining \$2.86 billion was spent on K jurisdiction projects. These are typically those projects on the state highway system outside of cities except for interstate roads, which are classified as K jurisdiction projects regardless of location. This study measures the economic impact of the \$2.86 billion devoted to K jurisdiction construction projects. This is achieved through analysis of a sample of these construction contracts which have a total contract value of \$2 billion.

Given the need for measuring the economic impacts of the Kansas Comprehensive Highway Program, the objectives of the study are as follows:

Objective 1. Measure *direct* output, income, and employment impacts by highway improvement type of the Kansas Comprehensive Highway Program.

Objective 2. Measure *indirect* and *induced* output, income, and employment impacts by highway improvement type of the Kansas Comprehensive Highway Program.

The output impact is the increase in Kansas production as a result of the CHP. The income impact is the increase in Kansas wages and salaries in response to an increase in income of the workers employed on CHP construction projects. The direct impact is CHP induced output, income, and employment within the highway construction industry itself while the indirect impact is the CHP induced output, income, and employment of the industries that supply the construction industry with goods, services, and materials. The induced impact is the additional output, income, and employment in various consumer markets produced by the increased consumer spending of people employed on CHP projects.

In cooperation with personnel from the KDOT Office of Management and Budget and the Division of Planning and Development, the research team selected the following highway improvement types for analysis.

<u>Category</u>	<u>Highway Improvement Type</u>
1	Resurfacing
2	Restoration and Rehabilitation; Reconstruction and Minor Widening
3	New Bridges and Bridge Replacement
4	Major and Minor Bridge Rehabilitation
5	New Construction; Relocation; Major Widening
6	Safety/Traffic Operations/Traffic Systems Management; Environmentally Related; Physical Maintenance; Traffic Services

The objectives of the study are accomplished through the use of a 68 sector, survey-based input-output model (Emerson, 1989) for the state of Kansas developed by the Economics Department at Kansas State University. The objectives are achieved by adapting the model to include six additional sectors corresponding to the six highway improvement types listed above. The input-output data for these six sectors is obtained by surveying highway contractors who obtained CHP (K jurisdiction) highway construction contracts during the period July 1, 1991 to September 30, 1996. We did not attempt to survey all contractors since the larger contracts were obtained by a relatively small number of firms. Thus we surveyed the firms that account for a large percentage of the value of CHP (K jurisdiction) highway construction contracts awarded during the sample period. The surveys include both a personal interview of the owner of the contracting firm and questionnaires containing the firm's purchase and employment data.

The major findings of the study include the following.

1. The economic impact of the Kansas CHP (K jurisdiction) highway construction contracts as measured by output is \$7.4 billion distributed by highway improvement type as follows:

<u>Highway Improvement Type</u>	<u>Value of Highway Contracts (Millions of Dollars)</u>	<u>Output Multiplier</u>	<u>Output Impact (Millions of Dollars)</u>
Category 1	\$647.0	2.671768	\$1728.6
Category 2	1621.6	2.587211	4195.4
Category 3	156.0	2.374471	370.4
Category 4	80.6	2.518010	203.0
Category 5	309.8	2.468194	764.6
Category 6	49.6	2.159928	107.1
Total	\$2864.6		\$7369.1

The output impact for each highway improvement type is obtained by multiplying the value of highway contracts by the output multiplier.

2. The economic impact of the Kansas CHP (K jurisdiction) highway construction contracts as measured by income is \$1.4 billion distributed by highway improvement type as follows:

<u>Highway Improvement Type</u>	<u>Direct Wages and Salaries (Millions of Dollars)</u>	<u>Income Multiplier</u>	<u>Income Impact (Millions of Dollars)</u>
Category 1	\$91.1	2.990495	\$272.4
Category 2	358.9	2.346804	842.3
Category 3	39.1	2.087858	81.6
Category 4	31.2	1.725710	53.8
Category 5	68.2	2.240519	152.8
Category 6	9.3	2.123587	19.7
Total	\$597.8		\$1422.6

The direct wages and salaries are the payments to workers in the construction industry attributable to the CHP. The income impact for each highway improvement type is obtained by multiplying the direct wages and salaries by the income multiplier.

3. The economic impact of the Kansas CHP (K jurisdiction) highway construction contracts as measured by employment is 117,820 full time equivalent (FTE) jobs distributed by highway improvement type as follows:

<u>Highway Improvement Type</u>	<u>Value of Highway Contracts (Millions of Dollars)</u>	<u>Employment Multiplier</u>	<u>Employment Impact (FTE Jobs)</u>
Category 1	\$647.0	37.68	24,379.0
Category 2	1621.6	42.26	68,528.8
Category 3	156.0	41.74	6511.4
Category 4	80.6	54.44	4387.9
Category 5	309.8	39.77	12,320.7
Category 6	49.6	34.12	1692.4
Total	\$2864.6		117,820.2

The employment impact of 117,820 FTE jobs is obtained by multiplying the employment multiplier (employment per million dollars of output) by the value of highway contracts in each highway improvement type and then summing all six categories.

4. The output, income, and employment impacts measured in this study under-estimate the economic impact of the Kansas CHP (K jurisdiction) highway construction contracts since we were unable to obtain input purchase data for highway work that was subcontracted. The effect of this is to omit the economic impact of the inputs that the highway contractors purchased from each other. Thus the economic impacts measured in this study are conservative estimates.

5. An output multiplier measures the increase in Kansas total output (production) in response to an increase in the output of one of the various Kansas highway improvement types. An income multiplier measures the increase in Kansas total income in response to an increase in income of the workers employed in one of the various Kansas highway improvement types. The employment multiplier measures the overall employment impact per million dollars of CHP highway contract

value. The output, income, and employment multipliers for the six highway improvement types are as follows:

<u>Highway Improvement Type</u>	<u>Output Multiplier</u>	<u>Income Multiplier</u>	<u>Employment Multiplier</u>
Category 1	2.671768	2.990495	37.68
Category 2	2.587211	2.346804	42.26
Category 3	2.374471	2.087858	41.74
Category 4	2.518010	1.725710	54.44
Category 5	2.468194	2.240519	39.77
Category 6	2.159928	2.123587	34.12

6. The major supplying industries that are common to most of the six highway improvement types are Nonmetallic Mining, Petroleum and Coal Products, Cement and Concrete, Motor Freight, and Fabricated Metals.

Nonmetallic Mining consists mostly of crushed stone, sand, gravel, and aggregate while Petroleum and Coal Products includes asphalt, paving material, oil and greases, and diesel fuel. Fabricated Metals consists of fabricated structural steel, reinforcing steel, rebar, guard rail, bridge rail, sheet metal, and metal pipe.

7. The significance of imports (purchases from out-of-state suppliers) in the input structure varies by highway improvement type. For Categories 3 and 6, imports account for 30 and 36.7 percent of purchases from supplying industries (total inputs minus final payments except imports). The corresponding percentage for Category 1 is only 6.3 percent. Thus Category 1 has the largest output multiplier since most of the economic impact is internalized within Kansas. Conversely, Category 6 has the smallest output multiplier since it has the largest propensity to import.

Although the economic impacts measured in this study are considerable, it should be noted that highway investment yields many other benefits to highway users that are beyond the scope of this project. For example highway improvements that reduce congestion can result in reductions in vehicle operating costs such as maintenance, fuel, tires, and depreciation. These improvements can also reduce average travel times and result in lower highway accident costs. Further research is needed to quantify these highway user benefits.

CHAPTER 1

INTRODUCTION

The Kansas Comprehensive Highway Program

The final contracts for construction of the Kansas Comprehensive Highway Program (CHP) will be awarded by June 30, 1997. As the executive and legislative branches of the Kansas government consider the next state highway program, it is appropriate to measure the construction economic impacts of the CHP to facilitate an evaluation of the state's investment in highways.

The CHP was established by passage of 1989 House Bill 2014 and the first contracts for construction were awarded in fiscal year 1990. After the final CHP contracts for construction are awarded (by June 30, 1997), approximately \$4 billion will have been spent on CHP projects. After deducting from the \$4 billion the costs for preliminary engineering, utility adjustments, right-of-way acquisition and construction engineering, the remaining \$3.18 billion was devoted to as let construction expenditures. After deducting from the \$3.18 billion the as let costs for construction projects of jurisdictions off the state highway system, the remaining \$2.86 billion was spent on K jurisdiction projects. These are typically those projects on the state highway system outside of cities except for interstate roads, which are classified as K jurisdiction projects regardless of location. This study measures the economic impact of the \$2.86 billion devoted to K jurisdiction construction projects. This is achieved through analysis of a sample of these construction contracts which have a total contract value of \$2 billion.

Research Objectives

Given the need for measuring economic impacts of the Kansas Comprehensive Highway Program, the objectives of the study are as follows:

Objective 1. Measure *direct* output, income, and employment impacts by highway improvement type of the Kansas Comprehensive Highway Program.

Objective 2. Measure *indirect* and *induced* output, income, and employment impacts by highway improvement type of the Kansas Comprehensive Highway Program.

The output impact is the increase in Kansas production as a result of the CHP. The income impact is the increase in Kansas wages and salaries in response to an increase in income of the workers employed on CHP construction projects. The direct impact is CHP induced output, income, and employment within the highway construction industry itself while the indirect impact is the CHP induced output, income, and employment of the industries that supply the construction industry with goods, services, and materials. The induced impact is the additional output, income, and employment in various consumer markets produced by the increased consumer spending of people employed on CHP projects.

In cooperation with personnel from the KDOT Office of Management and Budget and the Division of Planning and Development, the research team selected the following highway improvement types for analysis.

<u>Category</u>	<u>Highway Improvement Type</u>
1	Resurfacing
2	Restoration and Rehabilitation; Reconstruction and Minor Widening
3	New Bridges and Bridge Replacement
4	Major and Minor Bridge Rehabilitation

5	New Construction; Relocation; Major Widening
6	Safety/Traffic Operations/Traffic Systems Management; Environmentally Related; Physical Maintenance; Traffic Services

The above categories are combinations of Federal Highway Administration (FHWA) highway improvement types. See Appendix A for FHWA definitions.

Methodology

The objectives of the research are achieved with input-output modeling. An input-output model is a quantitative framework of analysis for examining the complicated interdependence within the production system of an economy. There are four components to the standard input-output model: an interindustry transactions matrix; a direct requirements matrix; a direct and indirect requirements matrix; and a direct, indirect, and induced requirements matrix. Each of these can be explained with the aid of a simple illustrative example drawn from Emerson (1989).

The transactions matrix describes the flows of goods and services between all individual sectors of the economy in a given year. The columns show purchases by a particular industry from all other industries. For example, in the highly simplified example of an input-output transactions matrix appearing in Table 1, the data in the Farming sector column show that, in order to produce its \$30 million output, that sector purchased \$4 million from farm enterprises, \$7 million from manufacturing firms, \$6 million from trade establishments, and made \$13 million of payments to the final payments sectors (households, gross saving, government, and imports). The data in the Farming sector row indicate that Farming sold \$4 million to farm enterprises, \$8 million to manufacturing, \$2 million to trade, and \$16 million to final demand (households,

investment, government, and exports).

The direct requirements matrix indicates the input requirements from each industry for a particular industry to produce an average \$1 of output. These purchase coefficients are obtained by dividing purchase data in each industry column of the transactions matrix by the corresponding output value for that industry. The resulting purchase coefficients, or input ratios, may be thought of as production recipes for a particular product. From the data in the simplistic transactions matrix in Table 1, a direct requirements matrix can be calculated (Table 2). As an example, the first column (farming) shows that to produce an average \$1 of output, the Farming sector buys \$.13 from farming enterprises, \$.23 from manufacturing firms, \$.20 from trade firms, and makes \$.44 of payments to the final payments sectors.

The direct and indirect requirements matrix is one of two matrixes that measures the interaction among industries. The other, the direct, indirect, and induced requirements matrix, is similar but includes the effects of household income and spending in addition to the interindustry interaction. The data in the columns of Table 3 for each industry indicate the direct and indirect requirements of all industries necessary for that industry to deliver \$1 of output to final demand. As an example, for the Farming sector to increase output to final demand by \$1, it must increase its overall output by \$1.2844 (including the initial \$1 increase), the Manufacturing sector must increase its output \$.5493, and the Trade sector must increase its output \$.3712. The total output increase of agriculture in this simplistic economy is the sum of these three values or 2.2049 times larger than the initial output expansion in agriculture. The corresponding values for Manufacturing and Trade are 2.2312 and 2.0354 respectively. This is the concept of an output multiplier.

Table 1

Illustrative Input-Output Transactions Matrix

	Farming	Mfg.	Trade	Final Demand	Total Output
Farming	4	8	2	16	30
Manufacturing	7	15	6	22	50
Trade	6	5	4	10	25
Final Payments	13	22	13	0	48
Total Inputs	30	50	25	48	153

Table 2

Illustrative Direct Requirements Matrix

	Farming	Mfg.	Trade
Farming	.13	.16	.08
Manufacturing	.23	.30	.24
Trade	.20	.10	.16
Final Payments	.44	.44	.52
Total	1.00	1.00	1.00

Table 3

Illustrative Direct and Indirect Requirements Matrix

	Farming	Mfg.	Trade
Farming	1.2844	.3242	.2149
Manufacturing	.5493	1.6360	.5174
Trade	.3712	.2710	1.3031

Employment multipliers can be obtained by combining the information in Table 3 with industry employment/output ratios. Suppose we have the following information.

<u>Sector</u>	<u>Employment</u>	<u>Output</u>	<u>Employment/Output Ratio</u>
Farming	30,000	\$10,000,000	0.003
Manufacturing	50,000	\$12,500,000	0.004
Trade	100,000	\$50,000,000	0.002

To obtain the direct and indirect employment multiplier for Farming we multiply each of the entries in the Farming column of Table 3 by its employment/output ratio and then sum the column.

Farming	$0.003 \times 1.2844 = .003853$
Manufacturing	$0.004 \times .5493 = .002197$
Trade	$0.002 \times .3712 = \underline{.000742}$
Total	$.006792$

The figure .006792 is the direct and indirect employment per dollar of Farming output. Employment multipliers are typically expressed as employment per \$1 million of output or 6792 for the Farming sector. The employment multipliers for Manufacturing and Trade are calculated in the same manner and are 8058 and 5321 respectively.

Implementing the Input-Output Methodology

The objectives of the study are accomplished through the use of a 68 sector, survey-based input-output model (Emerson, 1989) for the state of Kansas developed by the Economics Department at Kansas State University. The objectives are achieved by adapting the model to include six additional sectors corresponding to the six highway improvement types discussed previously. The input-output data for these six sectors is obtained by surveying highway

contractors who obtained Kansas CHP (K jurisdiction) highway construction contracts during the period July 1, 1991 to September 30, 1996. The value of these sample contracts as well as the value of total K jurisdiction contracts by highway improvement type is displayed in Table 4. As noted above, K jurisdiction highway construction projects are typically those projects on the state highway system outside of cities except for interstate highways, which are classified as K jurisdiction projects regardless of location.

Table 5 reveals the number of highway contractor firms that received CHP (K jurisdiction) highway prime contracts or subcontracts during the July 1, 1991 to September 30, 1996 period. We did not attempt to survey all these firms since the larger contracts were obtained by a relatively small number of firms. Thus we surveyed the firms that account for a large percentage of the value of Kansas CHP (K jurisdiction) highway construction contracts awarded during the sample period. The surveys include both a personal interview of the owner of the contracting firm and questionnaires containing the firm's purchase and employment data.

To simplify the contractors' task of completing the questionnaires, the number of sectors in the input-output model was reduced from 68 to 51 (see Table 6 for a description of the sectors). The survey forms for purchase-cost information and total labor hours are in Appendix B.

The output, income, and employment multipliers to measure economic impacts are obtained by analyzing Kansas CHP (K jurisdiction) highway construction contracts awarded between July 1, 1991 and September 30, 1996. In order to measure the economic impacts of the entire CHP, KDOT furnished the research team with the value of Kansas CHP (K jurisdiction) highway construction contracts awarded during the non-sample period. For the last 3 months of

Table 4

Value of CHP (K Jurisdiction) Highway Construction Contracts
by Highway Improvement Type*
(Millions of Dollars)

Highway Improvement Type	Value of CHP K Jurisdiction Sample Construction Contracts July 1, 1991 - September 30, 1996	Value of CHP K Jurisdiction Construction Contracts**
Resurfacing	\$375.3	\$647.0
Restoration and Rehabilitation; Reconstruction and Minor Widening	1227.0	1621.6
New Bridges and Bridge Replacement	106.6	156.0
Major and Minor Bridge Rehabilitation	43.9	80.6
New Construction; Relocation; Major Widening	221.1	309.8
Safety / Traffic Operations / Traffic Systems Management; Environmentally Related; Physical Maintenance; Traffic Services	30.7	49.6
Grand Total	\$2004.6	\$2864.6

* K jurisdiction highway construction projects are typically those projects on the state highway system outside of cities except for interstate highways, which are classified as K jurisdiction projects regardless of location.

** The total value of CHP (K jurisdiction) construction contracts includes the value of all the contracts let over the entire duration (fiscal years 1990 through 1997) of the CHP.

Table 5
 Number of Firms Receiving CHP (K Jurisdiction) Highway Construction
 Contracts by Highway Improvement Type
 July 1, 1991 to September 30, 1996

Highway Improvement Type	Number of Firms Receiving Prime Contracts	Number of Firms Receiving Subcontracts
Resurfacing	42	56
Restoration and Rehabilitation; Reconstruction and Minor Widening	70	261
New Bridges and Bridge Replacement	27	88
Major and Minor Bridge Rehabilitation	28	67
New Construction; Relocation; Major Widening	28	128
Safety / Traffic Operations / Traffic Systems Management; Environmentally Related; Physical Maintenance; Traffic Services	48	50

the CHP, KDOT provided the estimated letting costs for these contracts. In measuring the economic impacts of the CHP, it is assumed that the multipliers derived for the sample period construction contracts remain the same for the non-sample contracts.

Table 6

 Kansas Input-Output Model Sector Definitions

Agricultural

1. Agricultural Products - grain, soybeans, hay, dairying, poultry, cattle, hogs, other agricultural products
2. Agricultural Services - Includes establishments primarily engaged in performing soil preparation services, crop services, veterinary services, other animal services, farm labor and management services, and landscape and horticultural services for others on a fee or contract basis. SIC 07

Mining

3. Crude Petroleum and Natural Gas - Includes establishments engaged in operating oil and gas field properties. SIC 1311
4. Oil and Gas Field Services - Establishments primarily engaged in drilling wells for oil or gas field operations for others and establishments performing geophysical, geological, and other exploration services for oil and gas, on a contract, fee, or similar basis. SIC 138
5. Nonmetallic Mineral Mining, excluding Fuels - Establishments primarily engaged in mining or quarrying, developing mines, or exploring for nonmetallic minerals, except fuels. SIC 14
6. Other Mining - Includes mining of coal, metals, and other minerals not previously classified. SIC 10, 12, 132

Construction

7. Maintenance and Repair - Includes expenditures by firms for maintenance and repair services on capital assets.
8. Building Construction - Includes general contractors engaged in construction of residential, farm, industrial, public, and other buildings. SIC 15
9. Heavy Construction - Includes general contractors engaged in the construction of highways and streets, bridges, sewers, railroads, etc. SIC 16
10. Special Trade Contractors - Includes contractors specializing in activities such as plumbing, painting, plastering, carpentering, etc. SIC 17

Table 6

 Kansas Input-Output Model Sector Definitions

Manufacturing

11. Apparel and Related Products - Includes establishments producing clothing and fabricating products by cutting and sewing purchased woven or knit textile fabrics and related materials. SIC 23
12. Paper and Allied Products - Includes establishments manufacturing pulp from wood and other cellulose fibers, and manufacturing paper and paper products such as bags, boxes, envelopes, etc. SIC 26
13. Printing and Publishing - Includes establishments engaged in printing by one or more of the common processes, such as letterpress, lithography, gravure, or screen; establishments that perform services for the printing trade such as bookbinding, typesetting, and photoengraving. SIC 27
14. Industrial Inorganic and Organic Chemicals - Includes establishments engaged in manufacturing basic industrial chemicals such as industrial gases, dyes, pigments, etc. SIC 281, 286
15. Agricultural Chemicals - Includes establishments engaged in manufacturing fertilizers, agricultural pesticides, and other agricultural chemicals. SIC 287
16. Other Chemicals and Chemical Products - Includes establishments manufacturing unfinished plastics, drugs, cleaning preparations, perfumes, paints, explosives, glue, ink, etc. SIC 282, 283, 284, 285, 289
17. Petroleum and Coal Products - Includes establishments primarily engaged in petroleum refining, manufacturing paving and roofing materials, and compounding lubricating oils and greases from purchased materials. SIC 29
18. Rubber and Plastic Products - Includes establishments manufacturing rubber products such as tires, rubber footwear, mechanical rubber goods, flooring, etc., and establishments manufacturing primary plastic products and miscellaneous plastics products. SIC 30
19. Cement, Concrete and Plaster Products - Includes establishments producing hydraulic cement, concrete, concrete products, plasterboard, etc. SIC 324, 327
20. Other Stone, Clay, and Glass Products - Includes establishments producing glass and glass products, brick, pottery, etc. SIC 321, 322, 323, 325, 326, 328, 329
21. Primary Metal Industries - Includes establishments engaged in the smelting and refining of ferrous and nonferrous metals. SIC 33

Table 6

 Kansas Input-Output Model Sector Definitions

22. Fabricated Structural Metal Products - Includes establishments engaged in manufacturing fabricated iron and steel for structural purposes such as metal sash and doors, sheet metal work, boiler plate fabrication, etc. SIC 344
23. Other Fabricated Metal Products - Includes establishments producing nonstructural metal products such as tools, containers, fasteners, stampings, wire, pipe, etc. SIC 341, 342, 343, 345, 346, 347, 348, 349.
24. Farm Machinery and Equipment - Includes establishments engaged in manufacturing farm machinery and equipment. SIC 352
25. Construction and Industrial Machinery - Includes establishments engaged in manufacturing heavy machinery and equipment used by the construction, manufacturing, and mining industries. SIC 353
26. Food Products and Special Industry Machinery - Includes establishments manufacturing feed mill equipment, flour mill equipment, power saws, printing equipment, food packing machinery, etc. SIC 355
27. Electrical Machinery - Includes establishments engaged in manufacturing machinery, apparatus, and supplies for the generation, storage, transmission, transformation, and utilization of electrical energy. SIC 36
28. Other Machinery - Includes establishments manufacturing engines and turbines, machine tools, computing and accounting equipment, industrial machinery, etc. SIC 351, 354, 356, 357, 358, 359
29. Motor Vehicles and Equipment - Includes establishments manufacturing or assembling motor vehicles, passenger cars, truck and bus bodies, truck trailers, and parts for motor vehicles. SIC 371
30. Trailer Coaches - Establishments engaged in manufacturing trailer coaches, motor homes, and mobile homes. SIC 3792, 2451
31. Other Transportation Equipment - Includes establishments manufacturing transportation equipment not elsewhere classified. SIC 373, 375, 3799
32. Other Manufacturing - Includes establishments manufacturing goods not elsewhere classified such as textile mill products, lumber and wood products, furniture and fixtures, leather and leather products, scientific instruments, office supplies. SIC 21, 22, 24, 25, 31, 38

Table 6

 Kansas Input-Output Model Sector Definitions

Transportation

33. Railroad Transportation - Includes establishments furnishing transportation by line-haul railroad, as well as switching and terminal establishments. SIC 40
34. Motor Freight Transportation - Includes establishments furnishing local or long-distance trucking or transfer services or those engaged in the storage of farm products, furniture, and other household goods or commercial goods of any nature. SIC 42
35. Other Transportation - Includes transportation services not elsewhere classified. SIC 41, 44, 45, 46, 47

Utilities

36. Communication - Includes establishments furnishing point-to-point communication services, whether by wire or radio and whether intended to be received aurally or visually, and radio and television broadcasting. SIC 48
37. Electric, Gas, and Sanitary Services - Includes establishments engaged in supplying electricity, natural gas, and other gas products, water, garbage collection, and other sanitary services. SIC 49

Wholesale Trade

38. Machinery, Equipment, and Supplies - Includes establishments engaged in wholesaling machinery, equipment, and supplies. SIC 508
39. Other Wholesale Trade - Includes wholesalers not elsewhere classified. SIC 501, 502, 503, 504, 505, 506, 507, 509, 511, 512, 513, 516, 517, 518, 519

Retail Trade

40. Farm Equipment Dealers - Includes establishments engaged in marketing agricultural machinery and equipment. SIC 5083
41. Gasoline Service Stations - Includes establishments engaged in selling gasoline and lubricating oils and possibly selling other merchandise or performing minor repair work. SIC 554
42. Eating and Drinking Places - Includes establishments selling prepared foods and drinks for consumption on the premises. SIC 58

Table 6

 Kansas Input-Output Model Sector Definitions

43. Other Retail Trade - Includes retail trade establishments not elsewhere classified. SIC 52, 53, 54, 55 (except 554), 56, 57, 59

Finance, Insurance, and Real Estate

44. Banking - Includes institutions that are engaged in deposit banking or closely related functions, including fiduciary activities. SIC 60
45. Other Financial Institutions - Includes credit and lending institutions other than banks, as well as security and commodity dealers, investment companies, etc. SIC 61, 62, 67
46. Insurance and Real Estate - Includes insurance carriers, agents, and insurance services, as well as real estate operators, agents, and real estate services. SIC 63, 64, 65, 66

Services

47. Lodging Services - Includes commercial and institutional establishments engaged in furnishing lodging, lodging and meals, and camping space and camping facilities on a fee basis. SIC 70
48. Personal Services - Includes establishments engaged in providing services, generally involving the care of the person or his/her apparel. SIC 72
49. Business Services - Includes establishments engaged in rendering services, not elsewhere classified, to business establishments on a fee or contract basis including advertising, maintenance services, employment services, equipment rental and leasing, and consulting services. SIC 73
50. Medical and Other Health Services - Includes establishments engaged in furnishing medical, surgical, and other health services to persons. SIC 80
51. Other Services - Includes establishments providing services not elsewhere classified including legal services, repair services, entertainment services, etc. SIC 75, 76, 78, 79, 82 (part), 83, 84, 86, 89

CHAPTER 2

THE SAMPLE OF KANSAS CHP (K JURISDICTION)
HIGHWAY CONSTRUCTION PROJECTS

The objectives of this study are achieved by adapting the Kansas input-output model to include six additional sectors corresponding to the six highway improvement types. The input-output data for these six sectors is obtained by surveying highway contractors who obtained Kansas CHP (K jurisdiction) highway construction contracts during the period July 1, 1991 to September 30, 1996. The value of sample period contracts by highway improvement type is displayed in Table 4. The total value of these contracts is \$2004.6 million or 70 percent of the K jurisdiction contracts of \$2864.6 million. In this chapter we analyze the purchase of goods and services by highway contractors for each of the six highway improvement types for the sample contracts. We also develop the output, income, and employment multipliers that are used to measure the economic impacts of the K jurisdiction highway construction projects of the CHP.

The Transactions Matrix

Table 7 is that part of the Kansas input-output transactions matrix which shows the purchases of goods and services by highway contractors for each of the six highway improvement types. The data in the matrix is obtained by expanding the sample data obtained from highway contractors who received the larger construction contracts in each highway improvement category. The percentages of total sample period contract value accounted for by data from surveyed contractors are as follows:

Table 7

Transactions Matrix of the Six Highway Improvement Types
 July 1, 1991 - September 30, 1996
 (Expenditures in Thousands of Dollars)

Supplying Industries and Final Payment Sectors	Highway Improvement Types					
	Category 1	Category 2	Category 3	Category 4	Category 5	Category 6
Agricultural Products	0	0	0	0	0	0
Agricultural Services	185	792	267	26	314	101
Crude Oil & Natural Gas	0	278	220	0	0	0
Oil & Gas Field Services	0	0	0	0	0	0
Nonmetallic Mineral Mining	92,691	147,921	4,036	786	21,290	2,658
Other Mining	3,180	0	0	0	0	0
Maintenance & Repair	3,359	24,476	518	84	6,328	292
Building Construction	0	0	0	0	0	0
Category 1	0	0	0	0	0	0
Category 2	0	0	0	0	0	0
Category 3	0	0	0	0	0	0
Category 4	0	0	0	0	0	0
Category 5	0	0	0	0	0	0
Category 6	0	0	0	0	0	0
Heavy Construction	0	5,430	125	642	622	0
Special Trade Contractors	30	83	11	0	31	0
Apparel	0	0	0	0	0	0
Paper & Allied Products	1	19	0	0	0	0
Printing & Publishing	1	10	0	0	0	0
Industrial Chemicals	1	4,142	2	0	267	0
Agricultural Chemicals	0	108	0	0	312	0
Other Chemicals	12	1,720	9	0	171	0
Petroleum & Coal Products	73,151	81,592	2,556	1,103	13,361	1,798
Rubber & Plastic	194	6,687	318	346	847	0
Cement & Concrete	476	140,756	12,668	3,753	24,525	840
Other Stone, Clay & Glass	0	1,194	170	74	729	2
Primary Metal	1	257	321	0	0	10
Fabricated Metal	1,071	18,324	5,717	900	5,901	226
Other Fabricated Metal	1	3,136	1,124	0	50	33
Farm Machinery & Equipment	48	2,284	0	0	0	0
Const. & Industrial Machinery	7,693	32,946	973	1,000	4,986	176
Food Products Machinery	0	0	0	0	0	0
Electrical Machinery	0	172	195	0	2	1,221
Other Machinery	0	3,798	0	0	0	0
Motor Vehicles & Equipment	0	80	230	0	0	0
Trailer Coaches	0	0	0	0	0	0
Other Transportation Equip.	2	70	0	0	0	0
Other Manufacturing	797	20,727	1,629	430	3,408	424
Railroad Transportation	190	1,266	0	0	0	0
Motor Freight	37,150	45,729	1,736	324	4,712	1,072
Other Transportation	3	43	189	23	9	0

Table 7

Transactions Matrix of the Six Highway Improvement Types
 July 1, 1991 - September 30, 1996
 (Expenditures in Thousands of Dollars)

Supplying Industries and Final Payment Sectors	Highway Improvement Types					
	Category 1	Category 2	Category 3	Category 4	Category 5	Category 6
Communication	283	738	84	47	178	14
Elec., Gas, & Sanitary Services	264	1,412	95	33	220	81
Mach., Equip., & Supplies Whole.	28	354	596	59	112	0
Other Wholesale Trade	201	2,648	23	76	0	14
Farm Equipment - Retail	0	0	0	0	0	0
Gasoline Stations	1,804	4,164	579	193	395	630
Eating & Drinking Places	570	1,669	202	439	202	84
Other Retail Trade	1,379	6,620	348	511	101	43
Banking	39	814	19	26	0	2
Other Financial Institutions	276	586	0	72	0	0
Insurance & Real Estate	4,334	14,768	1,448	748	2,552	282
Lodging Services	2,305	3,270	515	586	938	209
Personal Services	2	14	22	4	2	0
Business Services	552	8,741	476	513	1,349	83
Medical & Health Services	728	514	81	25	41	11
Other Services	3,746	3,654	271	88	15	61
Households	52,782	271,657	26,654	16,944	48,715	5,793
Gross Savings	50,705	156,245	20,087	7,480	44,418	7,496
Federal Government	13,087	32,350	3,574	1,437	9,667	677
State Government	4,654	19,440	1,423	871	3,426	237
Local Government	1,312	5,459	905	146	950	88
Imports	16,020	147,843	16,186	4,100	19,993	6,007
Total Inputs	375,308	1,227,000	106,602	43,889	221,139	30,665

<u>Highway Improvement Type</u>	<u>Percent of Sample Period Contract Value Accounted for by Surveyed Contractors</u>
Resurfacing	55.2
Restoration and Rehabilitation; Reconstruction and Minor Widening	58.4
New Bridges and Bridge Replacement	55.6
Major and Minor Bridge Rehabilitation	49.0
New Construction; Relocation; Major Widening	57.0
Safety / Traffic Operations / Traffic Systems Management; Environmentally Related; Physical Maintenance; Traffic Services	16.8

To obtain the data in the transactions matrix all the purchase data of each highway improvement type is inflated by the appropriate expansion factor. For example if the sample data accounts for 50 percent of the known value of the total, the total can be obtained by multiplying the sample by 2.0. To obtain the expansion factors for each highway improvement type, simply divide 1.0 by the sample percentage expressed as a decimal. Thus the expansion factor for Resurfacing is $1.0 / 0.552 = 1.812$.

In addition to the 51 industry sectors defined in Table 6, the complete Kansas input-output model transactions matrix has six final payment sectors which are defined as follows:

Households - Personal income paid to Kansas residents by industry or sector

Gross Saving - Retained earnings and depreciation of industries and savings of households

Federal Government - Payments made by industries and sectors to the federal government, mostly in the form of taxes and fees

State Government - Payments made by industries and sectors to the state government, mostly in the form of taxes and fees

Local Government - Payments made by industries and sectors to local governments, mostly in the form of taxes and fees

Imports - Purchases made from out-of-state sources by Kansas industries, sectors, and households

Variation in Purchase Patterns by Highway Improvement Type

An examination of Table 7 indicates that the principal supplying industries for Resurfacing projects (hereafter referred to as Category 1) are Nonmetallic Mining, Petroleum and Coal Products, and Motor Freight. Nonmetallic Mining consists mostly of crushed stone, sand, gravel, and aggregate while Petroleum and Coal Products consists of asphalt, paving material, oil and greases, and diesel fuel. The \$92.7 million expenditure on Nonmetallic Mining accounts for 36.7 percent of the total purchases from supplying industries (\$252.8 million), which is defined as total inputs minus final payments except imports. The corresponding percentages for Petroleum and Coal Products and for Motor Freight are 28.9 and 14.7 respectively.

For Restoration and Rehabilitation; Reconstruction and Minor Widening projects (hereafter referred to as Category 2) the principal supplying industries are Nonmetallic Mining, Cement and Concrete, Petroleum and Coal Products, and Motor Freight. Together, these four sectors account for 56.1 percent of the total purchases from supplying industries (\$741.8 million).

Cement and Concrete, Fabricated Metals, and Nonmetallic Mining are the major raw material inputs for New Bridges and Bridge Replacement projects (hereafter referred to as Category 3). Fabricated Metals include fabricated structural steel, reinforcing steel, rebar, guard

rail, bridge rail, sheet metal, and metal pipe. These three supplying sectors collectively account for 41.5 percent of total purchases from supplying industries (\$54.0 million).

For Major and Minor Bridge Rehabilitation projects (hereafter referred to as Category 4) the paramount supplying industries are Cement and Concrete, Petroleum and Coal Products, Construction and Industrial Machinery, and Fabricated Metals. These four supplying sectors account for 39.7 percent of the total purchases from supplying industries (\$17.0 million), with 22.1 percent attributable to Cement and Concrete.

Cement and Concrete, Nonmetallic Mining, and Petroleum and Coal Products constitute the principal supplying industries for New Construction; Relocation; Major Widening projects (hereafter referred to as Category 5). These three supplying sectors collectively account for 51.9 percent of total purchases from supplying industries (\$114.0 million), with Cement and Concrete alone accounting for 21.5 percent.

For the sixth highway improvement type (hereafter referred to as Category 6) the major supplying industries are Nonmetallic Mining, Petroleum and Coal Products, Electrical Machinery (primarily traffic lights), Motor Freight, and Cement and Concrete. The percent of total purchases from supplying industries (\$16.4 million) attributable to these five sectors is 46.3 percent.

The significance of imports (purchases from out-of-state suppliers) in the purchase pattern varies by highway improvement type. For Categories 3 and 6, imports account for 30.0 and 36.7 percent of total purchases from supplying industries. However the corresponding percentage for Category 1 is only 6.3 percent.

Substantial variation exists in the purchase patterns of the six highway improvement types. For example Nonmetallic Mining accounts for 36.7 percent of Category 1 total purchases from supplying industries, but only 4.6 percent of the Category 4 purchases. Petroleum and Coal Products expenditure represents about 29 percent of Category 1 total purchases from supplying industries, but the corresponding percentage for Category 3 is only 4.7 percent. Cement and Concrete plays almost no role in the purchase pattern of Category 1. However Cement and Concrete accounts for 19.0 to 23.5 percent of Category 2 through 5 total purchases from supplying industries. Fabricated Metal is virtually absent from Category 1 but accounts for 10.6 percent of the Category 3 purchases from supplying industries.

Table 8 is the portion of the direct requirements matrix that pertains to the six highway improvement types. It is obtained by dividing each of the numbers in the columns of the transactions matrix (Table 7) by the column total. The direct requirements matrix reveals the cents worth of input required from supplying industries and final payments sectors to produce one dollar of output.

Multipliers

Output multipliers for each Kansas industry can be calculated by summing the columns of the direct, indirect, and induced requirements matrix (see Appendix C for the matrix). The output multiplier reveals the total increase in Kansas output resulting from a given increase in the output of a particular industry sector. Thus if the output of an industry increased by \$10 million and the output multiplier is 2.0, then the total output increase is \$20 million. Output multipliers are a good indicator of the degree of economic interaction between each state industry sector and

Table 8

Direct Coefficients Matrix of the Six Highway Improvement Types
 July 1, 1991 - September 30, 1996
 (Dollars)

Supplying Industries and Final Payment Sectors	Highway Improvement Types					
	Category 1	Category 2	Category 3	Category 4	Category 5	Category 6
Agricultural Products	0	0	0	0	0	0
Agricultural Services	0.000493	0.000645	0.002505	0.000592	0.001420	0.003294
Crude Oil & Natural Gas	0	0.000227	0.002064	0	0	0
Oil & Gas Field Services	0	0	0	0	0	0
Nonmetallic Mineral Mining	0.246977	0.120555	0.037860	0.017909	0.096274	0.086679
Other Mining	0.008473	0	0	0	0	0
Maintenance & Repair	0.008950	0.019948	0.004859	0.001914	0.028615	0.009522
Building Construction	0	0	0	0	0	0
Category 1	0	0	0	0	0	0
Category 2	0	0	0	0	0	0
Category 3	0	0	0	0	0	0
Category 4	0	0	0	0	0	0
Category 5	0	0	0	0	0	0
Category 6	0	0	0	0	0	0
Heavy Construction	0	0.004425	0.001173	0.014628	0.002813	0
Special Trade Contractors	0.000080	0.000068	0.000103	0	0.000140	0
Apparel	0	0	0	0	0	0
Paper & Allied Products	0.000003	0.000015	0	0	0	0
Printing & Publishing	0.000003	0.000008	0	0	0	0
Industrial Chemicals	0.000003	0.003376	0.000019	0	0.001207	0
Agricultural Chemicals	0	0.000088	0	0	0.001411	0
Other Chemicals	0.000032	0.001402	0.000084	0	0.000773	0
Petroleum & Coal Products	0.194911	0.066497	0.023977	0.025132	0.060419	0.058634
Rubber & Plastic	0.000517	0.005450	0.002983	0.007884	0.003830	0
Cement & Concrete	0.001268	0.114716	0.118835	0.085511	0.110903	0.027393
Other Stone, Clay & Glass	0	0.000973	0.001595	0.001686	0.003297	0.000065
Primary Metal	0.000003	0.000209	0.003011	0	0	0.000326
Fabricated Metal	0.002853	0.014934	0.053629	0.020506	0.026685	0.007370
Other Fabricated Metal	0.000003	0.002556	0.010544	0	0.000226	0.001076
Farm Machinery & Equipment	0.000128	0.001861	0	0	0	0
Const. & Industrial Machinery	0.020498	0.026851	0.009127	0.022785	0.022547	0.005739
Food Products Machinery	0	0	0	0	0	0
Electrical Machinery	0	0.000140	0.001829	0	0.000009	0.039817
Other Machinery	0	0.003095	0	0	0	0
Motor Vehicles & Equipment	0	0.000065	0.002158	0	0	0
Trailer Coaches	0	0	0	0	0	0
Other Transportation Equip.	0.000005	0.000057	0	0	0	0
Other Manufacturing	0.002123	0.016892	0.015281	0.009797	0.015411	0.013827
Railroad Transportation	0.000506	0.001032	0	0	0	0
Motor Freight	0.098986	0.037269	0.016285	0.007382	0.021308	0.034958
Other Transportation	0.000008	0.000035	0.001773	0.000524	0.000041	0

Table 8

Direct Coefficients Matrix of the Six Highway Improvement Types
July 1, 1991 - September 30, 1996
(Dollars)

Supplying Industries and Final Payment Sectors	Highway Improvement Types					
	Category 1	Category 2	Category 3	Category 4	Category 5	Category 6
Communication	0.000754	0.000601	0.000788	0.001071	0.000805	0.000457
Elec., Gas, & Sanitary Services	0.000703	0.001151	0.000891	0.000752	0.000995	0.002641
Mach., Equip., & Supplies Wh	0.000075	0.000289	0.005591	0.001344	0.000506	0
Other Wholesale Trade	0.000535	0.002158	0.000216	0.001732	0	0.000457
Farm Equipment - Retail	0	0	0	0	0	0
Gasoline Stations	0.004805	0.003394	0.005431	0.004397	0.001786	0.020545
Eating & Drinking Places	0.001518	0.001360	0.001895	0.010003	0.000913	0.002739
Other Retail Trade	0.003673	0.005395	0.003264	0.011643	0.000457	0.001402
Banking	0.000104	0.000663	0.000178	0.000592	0	0.000065
Other Financial Institutions	0.000735	0.000478	0	0.001641	0	0
Insurance & Real Estate	0.011547	0.012036	0.013583	0.017043	0.011540	0.009196
Lodging Services	0.006143	0.002665	0.004831	0.013352	0.004242	0.006816
Personal Services	0.000005	0.000011	0.000206	0.000091	0.000009	0
Business Services	0.001470	0.007124	0.004465	0.011689	0.006100	0.002707
Medical & Health Services	0.001939	0.000419	0.000760	0.000570	0.000185	0.000359
Other Services	0.009981	0.002978	0.002542	0.002005	0.000068	0.001989
Households	0.140639	0.221399	0.250033	0.386065	0.220291	0.188912
Gross Savings	0.135104	0.127339	0.188430	0.170430	0.200860	0.244448
Federal Government	0.034869	0.026365	0.033527	0.032742	0.043715	0.022077
State Government	0.012400	0.015844	0.013349	0.019846	0.015493	0.007729
Local Government	0.003495	0.004449	0.008490	0.003327	0.004296	0.002870
Imports	0.042684	0.120491	0.151836	0.093417	0.090409	0.195891
Total Inputs	1.0	1.0	1.0	1.0	1.0	1.0

In some cases the column totals may not sum to exactly 1.0 due to rounding error.

the rest of the state economy. Thus Kansas industries that purchase most of their inputs from Kansas producers will have higher output multipliers than sectors that rely heavily on out-of-state suppliers. Thus since Category 1 has the lowest propensity to import, it has the largest output multiplier.

Income multipliers can be calculated by dividing the values in the household row of the direct, indirect, and induced matrix by their corresponding values in the household row of the direct requirements matrix. Income multipliers indicate the total income generated from the construction projects including direct wages and salaries as well as indirect income.

The employment multipliers by highway improvement type are computed by employing a three step procedure. The first step is to calculate employment/output ratios for each of the industry sectors in the Kansas input-output model, including the six highway improvement categories. The employment/output ratios for the six highway improvement types are computed from data supplied by the sample highway contractors. The corresponding ratios for the other Kansas industry sectors are computed from data in [IMPLAN, 1993]. The second step is to multiply each of the entries in the columns of the six highway categories of the matrix in Appendix C by the appropriate employment/output ratio. The third step is to sum the columns. The result is an employment multiplier for each of the six highway improvement types. These multipliers are expressed as employment per million dollars of output (i.e. highway contract value).

The output, income, and employment multipliers for all Kansas industry sectors are displayed in Table 9.

Table 9

Output, Income, and Employment Multipliers of Kansas Industries

Kansas Industry	Output Multiplier	Income Multiplier	Employment Multiplier
Corn	2.367879	2.119918	44.85
Sorghum	2.406270	1.944704	47.38
Wheat	2.685687	1.885769	57.41
Other Grains	2.578868	1.894206	50.99
Soybeans	2.439980	2.073368	53.12
Hay	2.428953	1.567228	55.57
Dairy	2.881539	2.870977	50.29
Poultry	2.787577	2.583003	44.81
Cattle	2.865587	4.404180	47.31
Hogs	2.872786	4.836714	51.00
Other Agricultural Products	2.407106	2.772161	57.92
Agricultural Services	2.048085	1.612013	69.37
Crude Oil & Natural Gas	1.923375	3.310774	39.73
Oil & Gas Field Services	2.565424	3.057609	68.32
Nonmetallic Mineral Mining	1.914371	3.303427	27.87
Other Mining	2.875019	2.005431	51.10
Maintenance & Repair	3.571030	n.a.	66.60
Building Construction	2.783418	3.319424	53.38
Category 1	2.671768	2.990495	37.68
Category 2	2.587211	2.346804	42.26
Category 3	2.374471	2.087858	41.74
Category 4	2.518010	1.725710	54.44
Category 5	2.468194	2.240519	39.77
Category 6	2.159928	2.123587	34.12
Heavy Construction	2.765026	1.973319	52.67
Special Trade Contractors	2.571030	1.571192	56.79
Apparel	1.493767	2.675133	25.51
Paper & Allied Products	2.226493	2.670520	37.04
Printing & Publishing	1.867400	1.673898	34.78
Industrial Chemicals	2.729608	2.824057	36.84
Agricultural Chemicals	2.022306	2.255037	26.50
Other Chemicals	1.836140	2.000676	22.51
Petroleum & Coal Products	2.332864	8.564197	28.62
Rubber & Plastic	1.843217	1.862267	31.62
Cement & Concrete	2.556355	1.776322	46.65
Other Stone, Clay, Glass	2.557319	2.331672	41.72
Primary Metals	2.487136	2.259783	43.92
Fabricated Metal	2.600051	1.874190	51.35
Other Fabricated Metal	2.379366	1.674303	46.93
Farm Machinery & Equipment	2.565020	2.733575	43.71
Const. & Industrial Machinery	2.135823	2.219496	34.96
Food Products Machinery	2.264101	2.057034	39.86
Electrical Machinery	2.424399	2.082785	45.28
Other Machinery	2.369058	2.388912	43.45
Motor Vehicles & Equipment	1.619144	2.057048	18.67
Trailer Coaches	2.793826	2.744912	51.30

Table 9

Output, Income, and Employment Multipliers of Kansas Industries

Kansas Industry	Output Multiplier	Income Multiplier	Employment Multiplier
Other Transport Equipment	2.252346	1.920213	39.23
Other Manufacturing	1.923064	1.493734	39.22
Railroad Transportation	2.463251	1.479530	50.11
Motor Freight	2.271656	1.526228	52.86
Other Transportation	2.352978	1.553125	43.52
Communication	2.192036	1.410622	43.75
Elec., Gas, Sanitary Serv.	1.656502	1.991570	21.40
Mach., Equip. & Supplies Wholesale	2.741069	1.675687	69.56
Other Wholesale Trade	2.557401	1.598065	67.42
Farm Equipment-Retail	2.602634	1.579802	82.94
Gasoline Stations	2.213328	1.484249	72.87
Eating & Drinking Places	2.595213	2.029643	76.15
Other Retail Trade	2.810186	1.937910	87.62
Banking	2.621621	1.671543	54.95
Other Financial Institutions	2.482629	1.724756	68.11
Insurance & Real Estate	2.678050	1.877532	53.56
Lodging Services	2.352356	2.034057	73.32
Personal Services	2.307992	1.694261	81.38
Business Services	2.397032	1.733589	64.43
Medical & Health Services	2.356601	1.475040	63.61
Other Services	2.323070	1.389535	64.09

The output, income, and employment multipliers for the six highway improvement types are as follows:

<u>Highway Improvement Type</u>	<u>Output Multiplier</u>	<u>Income Multiplier</u>	<u>Employment Multiplier</u>
Category 1	2.671768	2.990495	37.68
Category 2	2.587211	2.346804	42.26
Category 3	2.374471	2.087858	41.74
Category 4	2.518010	1.725710	54.44
Category 5	2.468194	2.240519	39.77
Category 6	2.159928	2.123587	34.12

The above multipliers actually under-estimate the economic impact of the Kansas CHP (K jurisdiction) highway construction contracts examined in this study. The sample highway contractors that provided purchase data for this study received 1136 prime contracts and 2464 subcontracts. Since many of these contracts involved multiple subcontractors it was impractical to attempt to obtain the input data for highway work that was subcontracted. The effect of this is to omit the economic impact of the inputs that the contractors purchased from each other. This is reflected in the transactions matrix (Table 7) in which all transactions in the rows for Categories 1 through 6 are zero. Thus the output, income, and employment impacts calculated with the above listed multipliers are conservative estimates.

CHAPTER 3

THE ECONOMIC IMPACT OF THE KANSAS COMPREHENSIVE HIGHWAY PROGRAM

Direct Wages and Salaries and Employment

This project examines the economic and employment impacts of Kansas CHP (K jurisdiction) highway construction contracts which have a total value of \$2864.6 million (see Table 4). An estimated total of \$597.8 million in wages and salaries (including employer paid benefits) are attributable to these contracts, or 20.9 percent of the total contract value. The wages and salaries paid by highway improvement type are as follows:

<u>Highway Improvement Type</u>	<u>Wages and Salaries</u>	<u>Percent of Contract Value</u>
Resurfacing	\$91.1 million	14.1
Restoration and Rehabilitation; Reconstruction and Minor Widening	\$358.9 million	22.1
New Bridges and Bridge Replacement	\$39.1 million	25.1
Major and Minor Bridge Rehabilitation	\$31.2 million	38.7
New Construction; Relocation; Major Widening	\$68.2 million	22.0
Safety / Traffic Operations / Traffic Systems Management; Environmentally Related; Physical Maintenance; Traffic Services	\$9.3 million	18.8

The above data reveal that the percent of total contract value attributable to wages and salaries varies a great deal by highway improvement type; from a low of 14.1 percent for Resurfacing projects to a high of 38.7 percent for Major and Minor Bridge Rehabilitation.

Direct total labor hours and full time equivalent employment attributable to the CHP (K jurisdiction) highway construction contracts are as follows:

<u>Highway Improvement Type</u>	<u>Total Hours Worked</u>	<u>Full Time Equivalent Employment</u>
Resurfacing	6,337,525	3169
Restoration and Rehabilitation; Reconstruction and Minor Widening	20,686,782	10,343
New Bridges and Bridge Replacement	2,319,628	1160
Major and Minor Bridge Rehabilitation	1,975,344	988
New Construction; Relocation; Major Widening	3,884,015	1942
Safety / Traffic Operations / Traffic Systems Management; Environmentally Related; Physical Maintenance; Traffic Services	616,289	308

Total labor hours can be converted to full time equivalent employment by assuming some value for annual hours worked per employee. Since highway construction is a very seasonal business we asked several contractors to provide an estimate of this figure. While there was some variation in the estimates, most of them clustered around 2000 hours. Thus annual full time equivalent employment is obtained by dividing total hours worked by 2000 hours. The total hours worked for all six highway improvement types as a group is 35,819,583, resulting in annual full time equivalent employment of 17,910 in the highway construction industry.

It also should be noted that these are good paying jobs. The average wage per hour (including employer paid benefits) can be obtained for each highway improvement type by dividing wages and salaries by hours worked.

<u>Highway Improvement Type</u>	<u>Average Wage per Hour</u>
Resurfacing	\$14.37
Restoration and Rehabilitation; Reconstruction and Minor Widening	\$17.35
New Bridges and Bridge Replacement	\$16.86
Major and Minor Bridge Rehabilitation	\$15.79
New Construction; Relocation; Major Widening	\$17.56
Safety / Traffic Operations / Traffic Systems Management; Environmentally Related; Physical Maintenance; Traffic Services	\$15.09

When total wages and salaries of \$597.8 million are divided by total hours worked of 35.8 million, the result is an average wage per hour of \$16.70 for all Kansas CHP (K jurisdiction) highway construction contracts.

Output, Income, and Employment Impacts

The output, income, and employment multipliers for the six highway improvement types are obtained by analyzing Kansas CHP (K jurisdiction) highway construction contracts awarded between July 1, 1991 and September 30, 1996. In order to measure the economic impacts of the entire CHP, KDOT supplied the research the team with the value of Kansas CHP (K jurisdiction)

highway construction contracts awarded during the non-sample period. For the last 3 months of the CHP (April - June 1997), KDOT provided the estimated letting costs for these contracts. In measuring the output, income, and employment impacts of the CHP, it is assumed that the multipliers derived from the sample period contracts are the same for the other CHP contracts.

One way to measure the economic impact of the Kansas CHP is to multiply the total CHP contract value of each highway improvement type by its respective output multiplier. As indicated by the data in Table 10, the Kansas CHP (K jurisdiction) highway construction contracts generated output valued at \$7.4 billion (includes the direct impact of \$2.86 billion).

An alternative measure of the economic impact of the Kansas CHP can be obtained by multiplying the direct wages and salaries of each highway improvement type by its respective income multiplier. Direct wages and salaries for CHP (K jurisdiction) highway construction contracts are estimated by assuming that wages and salaries are the same percentage of total contract value as the contracts awarded during the sample period. Estimated direct wages and salaries for all CHP (K jurisdiction) highway construction contracts are in column 2 of Table 11. As indicated by Table 11, the income impact is \$1.4 billion (includes the direct impact of \$597.8 million).

The actual output and income impacts are greater than the estimates of \$7.4 billion and \$1.4 billion due to the understatement of the output and income multipliers discussed in Chapter 2.

The employment multipliers can be combined with the total contract value of the six highway improvement types to calculate the employment impacts of the Kansas CHP. The

Table 10

Kansas CHP Economic Impact (Output) by Highway Improvement Type
(Millions of Dollars)

(1) Highway Improvement Type	(2) Total Highway Contract Value	(3) Output Multiplier	(4) Output Impact
Category 1	\$647.0	2.671768	\$1728.6
Category 2	\$1621.6	2.587211	\$4195.4
Category 3	\$156.0	2.374471	\$370.4
Category 4	\$80.6	2.518010	\$203.0
Category 5	\$309.8	2.468194	\$764.6
Category 6	\$49.6	2.159928	\$107.1
Total	\$2864.6		\$7369.1

Column (4) is the product of columns (2) and (3).

Table 11
 Kansas CHP Economic Impact (Income) by Highway Improvement Type
 (Millions of Dollars)

(1) Highway Improvement Type	(2) Direct Wages and Salaries	(3) Income Multiplier	(4) Income Impact
Category 1	\$91.1	2.990495	\$272.4
Category 2	\$358.9	2.346804	\$842.3
Category 3	\$39.1	2.087858	\$81.6
Category 4	\$31.2	1.725710	\$53.8
Category 5	\$68.2	2.240519	\$152.8
Category 6	\$9.3	2.123587	\$19.7
Total	\$597.8		\$1422.6

Column (4) is the product of columns (2) and (3).

results are in Table 12, which indicates that the Kansas CHP (K jurisdiction) highway construction contracts generated 117,820 full time equivalent jobs with 58.2 percent occurring in Category 2. It should be noted that the employment impact is also understated due to the inability to obtain purchase data for highway work that was subcontracted.

Table 12
 Kansas CHP Employment Impact by Highway Improvement Type
 (Measured in Full Time Equivalent Employment)

(1)	(2)	(3)	(4)
Highway Improvement Type	Total Highway Contract Value*	Employment Multiplier	Employment Impact
Category 1	\$647.0	37.68	24,379.0
Category 2	\$1621.6	42.26	68,528.8
Category 3	\$156.0	41.74	6511.4
Category 4	\$80.6	54.44	4387.9
Category 5	\$309.8	39.77	12,320.7
Category 6	\$49.6	34.12	1692.4
Total	\$2864.6		117,820.2

*Highway contract value measured in millions of dollars

Column (4) is the product of columns (2) and (3).

CHAPTER 4
CONCLUSION

The CHP was established by passage of 1989 House Bill 2014 and the first contracts for construction were awarded in fiscal year 1990. After the final CHP contracts for construction are awarded in June 1997 approximately \$4 billion will have been spent on CHP projects. After deducting from the \$4 billion the costs for preliminary engineering, utility adjustments, right-of-way acquisition and construction engineering, the remaining \$3.18 billion was devoted to as let construction expenditures. After deducting from the \$3.18 billion the as let costs for construction projects of jurisdictions off the state highway system, the remaining \$2.86 billion was spent on K jurisdiction projects. These are typically those projects on the state highway system outside of cities except for interstate roads, which are classified as K jurisdiction projects regardless of location. This study measures the output, income, and employment impacts of the \$2.86 billion devoted to K jurisdiction construction projects. This is achieved through analysis of a sample of these construction contracts which have a total contract value of \$2 billion. A 68 sector, survey-based, input-output model of the Kansas economy is employed to measure the economic impacts. The principal conclusions of the study are as follows:

1. The economic impact of the Kansas CHP (K jurisdiction) highway construction contracts as measured by output is \$7.4 billion distributed by highway improvement type as follows:

Highway Improvement Type	Highway Contract Value (Millions of Dollars)	Output Multiplier	Output Impact (Millions of Dollars)
Category 1	\$647.0	2.671768	\$1728.6
Category 2	\$1621.6	2.587211	\$4195.4
Category 3	\$156.0	2.374471	\$370.4
Category 4	\$80.6	2.518010	\$203.0

Category 5	\$309.8	2.468194	\$764.6
Category 6	\$49.6	2.159928	\$107.1
Total	\$2864.6		\$7369.1

The output impact for each highway improvement type is obtained by multiplying the highway contract value by the output multiplier.

2. The economic impact of the Kansas CHP (K jurisdiction) highway construction contracts as measured by income is \$1.4 billion distributed by highway improvement type as follows:

Highway Improvement Type	Direct Wages and Salaries (Millions of Dollars)	Income Multiplier	Income Impact (Millions of Dollars)
Category 1	\$91.1	2.990495	\$272.4
Category 2	\$358.9	2.346804	\$842.3
Category 3	\$39.1	2.087858	\$81.6
Category 4	\$31.2	1.725710	\$53.8
Category 5	\$68.2	2.240519	\$152.8
Category 6	\$9.3	2.123587	\$19.7
Total	\$597.8		\$1422.6

The income impact for each highway improvement type is calculated by multiplying direct wages and salaries (i.e., wages and salaries generated in the highway construction industry) by the income multiplier.

3. The economic impact of the Kansas CHP (K jurisdiction) highway construction contracts as measured by employment is 117,820 full time equivalent (FTE) jobs distributed by highway improvement type as follows:

Highway Improvement Type	Highway Contract Value (Millions of Dollars)	Employment Multiplier	Employment Impact (Full-Time Equivalent Jobs)
Category 1	\$647.0	37.68	24,379.0
Category 2	\$1621.6	42.26	68,528.8
Category 3	\$156.0	41.74	6511.4
Category 4	\$80.6	54.44	4387.9
Category 5	\$309.8	39.77	12,320.7
Category 6	\$49.6	34.12	1692.4
Total	\$2864.6		117,820.2

The employment impact for each highway improvement type is calculated by multiplying highway contract value by the employment multiplier.

4. The output, income, and employment impacts in conclusions 1 through 3 under-estimate the economic impact of the Kansas CHP (K jurisdiction) highway construction contracts since we were unable to obtain input purchase data for highway work that was subcontracted. The effect of this is to omit the economic impact of the inputs that the highway contractors purchased from each other.

5. The output, income, and employment multipliers for the six highway improvement types are as follows:

Highway Improvement Type	Output Multiplier	Income Multiplier	Employment Multiplier
Category 1	2.671768	2.990495	37.68
Category 2	2.587211	2.346804	42.26
Category 3	2.374471	2.087858	41.74
Category 4	2.518010	1.725710	54.44
Category 5	2.468194	2.240519	39.77
Category 6	2.159928	2.123587	34.12

The employment multiplier measures the employment per million dollars of CHP highway contract value.

6. Wages and salaries account for 20.9 percent of the total value of the Kansas CHP (K jurisdiction) highway construction contracts. However there is substantial variation in this percentage among highway improvement types ranging from a low of 14.1 percent for Category 1 to a high of 38.7 percent for Category 4.

7. The \$2864.6 million in CHP (K jurisdiction) highway construction contracts let by KDOT provided full time equivalent jobs for 17,910 construction industry workers. These are good paying jobs. The average wage per hour for the CHP contracts is \$16.70.

8. The principal supplying industries for the various highway improvement types are as follows:

Category 1	Category 2	Category 3	Category 4	Category 5	Category 6
Nonmetallic Mining	Nonmetallic Mining	Cement & Concrete	Cement & Concrete	Cement & Concrete	Nonmetallic Mining
Petroleum and Coal Products	Cement & Concrete	Fabricated Metals	Petroleum and Coal Products	Nonmetallic Mining	Petroleum and Coal Products
Motor Freight	Petroleum and Coal Products	Nonmetallic Mining	Construction Machinery	Petroleum and Coal Products	Electrical Machinery
	Motor Freight	Fabricated Metals			Motor Freight
					Cement & Concrete

9. There is substantial variation in the input structure / cost structure of the six highway improvement types.

10. The significance of imports (purchases from out-of-state suppliers) in the input structure varies by highway improvement type. For Categories 3 and 6, imports account for 30 and 36.7 percent of purchases from supplying industries. The corresponding percentage for Category 1 is only 6.3 percent. Thus Category 1 has the largest output multiplier since most of the economic impact is "internalized" within Kansas.

Although the economic impacts measured in this study are considerable, it should be noted that highway investment yields many other benefits to highway users that are beyond the scope of this project. For example highway improvements that reduce congestion can result in reductions in vehicle operating costs such as maintenance, fuel, tires, and depreciation. These improvements can also reduce average travel times and result in lower highway accident costs. Further research is needed to quantify these highway user benefits.

The study did not examine the economic impacts of other aspects of the Kansas CHP such as preliminary engineering by consultants which includes surveys, environmental clearances, permits, and preparation of design plans. The study also excludes the impact of utility adjustments which provide for payment of funds to affected utility companies to move utilities on KDOT right of way. The research project does not measure the impact of right-of-way acquisitions which involve payments to property owners to obtain land for construction of new bridges or pavements. The study omits the impact of construction engineering which includes surveys for bridge and pavement construction, inspection of construction materials, and other project administration activities. Finally, the study omits the as let costs for construction projects of jurisdictions off the state highway system. Further research is needed to quantify these impacts.

REFERENCES

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APPENDIX A
FEDERAL HIGHWAY ADMINISTRATION DEFINITIONS
OF HIGHWAY IMPROVEMENT TYPES

NEW CONSTRUCTION - Construction of a new facility that will not replace or relocate an existing facility. A new facility will provide: (1) a facility where none existed, or (2) an additional and alternate facility to an existing facility that will remain open and continue to serve through traffic.

RELOCATION - Construction of a facility on a new location that replaces an existing route. The new facility carries all the through traffic with the previous facility closed or retained as a land-service road only.

RECONSTRUCTION - Construction on approximate alignment of an existing route where the old pavement structure is substantially removed and replaced. Such reconstruction may be to the existing number of lanes or may include widening to provide additional through lanes, or utilizing, or adding, or revising interchanges, replacing other highway elements such as a grade separation to replace an existing grade intersection or otherwise improving the existing facility without changing the basic character of the facility.

MAJOR WIDENING - The addition of lanes or dualization of an existing facility where the existing pavement is salvaged. Also included, where necessary, is the resurfacing of existing pavement and other incidental improvements such as drainage and shoulder improvements.

MINOR WIDENING - Widening the lanes and/or shoulders of an existing facility without adding through lanes. In many cases, the improvement will include resurfacing the existing pavement and other incidental improvements such as shoulder and drainage improvements.

RESTORATION AND REHABILITATION - Work required to return an existing pavement (including shoulders) to a condition of adequate structural support or to a condition adequate for placement of an additional stage of construction. There may be some upgrading of unsafe features or other incidental work in conjunction with restoration and rehabilitation. Typical

improvements would include replacing spalled or malfunctioning joints; substantial pavement stabilization prior to resurfacing; grinding/grooving of rigid pavements; replacing deteriorated materials; reworking or strengthening bases or subbases, and adding underdrains.

RESURFACING - Placement of additional surface material over the existing roadway to improve serviceability or to provide additional strength. There may be some upgrading of unsafe features and other incidental work in conjunction with resurfacing. Where surfacing is constructed by separate project as a final state of construction, the type of improvement should be the same as that of the preceding stage -- new route, relocation, reconstruction, minor widening, etc.

NEW BRIDGE - Construction of a new bridge which does not replace or relocate an existing bridge.

BRIDGE REPLACEMENT - The total replacement of a structurally inadequate or functionally obsolete bridge with a new structure constructed in the same general traffic corridor to current geometric construction standards. A bridge removed and not replaced or replaced with a lesser facility is considered a bridge replacement. Incidental roadway approach work is included.

MAJOR BRIDGE REHABILITATION - The major work required to restore the structural integrity of a bridge as well as work necessary to correct major safety defects. Bridge deck replacement (both partial and complete) and the widening of bridges to specified standards are included. Construction of a dual structure to alleviate a capacity deficiency is also included.

MINOR BRIDGE REHABILITATION - Work required to correct minor structure and safety defects or deficiencies, such as deck patching, deck resurfacing, deck protective systems, upgrading railings, curbs and gutters, and other minor bridge work.

SAFETY/TRAFFIC OPERATIONS/TSM (Traffic System Management) - A project or a significant portion of a project that provides features or devices to enhance safety; or a traffic

operation improvement which is designed to reduce traffic congestion and to facilitate the flow of traffic, both people and vehicles, on existing systems, or to conserve motor fuels; or which is designed to reduce vehicle use or to improve transit service.

ENVIRONMENTALLY RELATED - The category includes improvements that do not provide any increase in the level of service, in the condition of the facility, or in safety features. Typical improvements, which fall in this category, would be noise barriers, beautification and other environmentally related features not built as a part of the above identified improvement types.

PHYSICAL MAINTENANCE - Includes maintenance of condition for roads and structures.

TRAFFIC SERVICES - Includes snow removal and the maintenance of traffic control devices.

APPENDIX B

HIGHWAY CONTRACTOR SURVEY FORMS FOR PURCHASE - COST
INFORMATION AND TOTAL LABOR HOURS

HIGHWAY ECONOMIC IMPACT PROJECT

KDOT Contractor No.: SAMPLE

PQ1

Person answering questionnaire _____

We request your purchase and cost information on the highway projects listed below.

These contracts deal only with:

KDOT Contract Numbers	Route	KDOT Project Number	Final Contract Amount (if avail.)	Total Labor Hours
92000001	K-490	K 1000-01	_____	_____
93000001	U-220	K 2000-01	_____	_____
		TOTALS	_____	_____

HIGHWAY ECONOMIC IMPACT PROJECT

KDOT Contractor No.: SAMPLE

SQ1

Person answering questionnaire _____

We request your purchase and cost information on the highway projects listed below.

These contracts deal only with:

KDOT Contract Numbers	Route	KDOT Project Number	Final Contract Amount (if avail.)	Type of Subcontract Work Done	Total Labor Hours
92000001	K-490	K 1000-01	_____	_____	_____
93000001	U-220	K 2000-01	_____	_____	_____
		TOTALS	_____	_____	_____

HIGHWAY EMPLOYMENT IMPACT PROJECT SECTOR LIST

AGRICULTURAL:

1. Agricultural Products
2. Agricultural Services

MINING:

3. Crude Oil and Natural Gas
4. Oil and Gas Field Services
5. Nonmetallic Mining
6. Other Mining

CONSTRUCTION:

7. Maintenance and Repair
8. Building Construction
9. Heavy Construction
10. Special Trade Construction

MANUFACTURING:

11. Apparel
12. Paper and Allied Products
13. Printing and Publishing
14. Industrial Chemicals
15. Agricultural Chemicals
16. Other Chemicals
17. Petroleum and Coal Products
18. Rubber and Plastics
19. Cement and Concrete
20. Other Stone and Clay Products
21. Primary Metals
22. Fabricated Metals
23. Other Fabricated Metals
24. Farm Machinery
25. Construction Machinery
26. Food Products Machinery
27. Electrical Machinery
28. Other Machinery
29. Motor Vehicles
30. Trailer Coaches
31. Other Transportation Equipment
32. Other Manufacturing

TRANSPORTATION:

33. Railroad Transportation
34. Motor Freight
35. Other Transportation

UTILITIES:

36. Communications
37. Electric, Gas, and Sanitary Services

WHOLESALE:

38. Machinery and Equipment
39. Other Wholesale Trade

RETAIL:

40. Farm Equipment Dealers
41. Gasoline Service Stations
42. Eating and Drinking Places
43. Other Retail Trade

FINANCE, INSURANCE, REAL ESTATE:

44. Banking
45. Other Finance
46. Insurance and Real Estate

SERVICES:

47. Lodging Services
48. Personal Services
49. Business Services
50. Medical and Health Services
51. Other Services

APPENDIX C
THE DIRECT, INDIRECT, AND
INDUCED REQUIREMENTS MATRIX OF THE KANSAS INPUT-OUTPUT MODEL

D. Direct, and Induced
Requirements Matrix

Other
Grains

	Corn	Sorghum	Wheat	Other Grains	Soybeans	Hay	Dairy	Poultry	Cattle
Corn	1.036114	0.000577	0.000699	0.000587	0.000566	0.000666	0.084712	0.012216	0.080321
Sorghum	0.001081	1.010873	0.001411	0.001184	0.001153	0.001342	0.119968	0.021757	0.139800
Wheat	0.000925	0.001023	1.033975	0.000962	0.001075	0.001107	0.046929	0.057106	0.034678
Other Grains	0.000046	0.000050	0.000062	1.053843	0.000048	0.000574	0.000068	0.000061	0.000114
Soybeans	0.000052	0.000056	0.000069	0.000058	1.009861	0.000066	0.000304	0.000302	0.000154
Hay	0.000624	0.000672	0.000812	0.000683	0.000657	1.000844	0.016584	0.001106	0.127744
Dairy	0.001483	0.001615	0.002015	0.001710	0.001572	0.001967	1.001988	0.001960	0.001590
Poultry	0.000049	0.000053	0.000066	0.000056	0.000052	0.000065	0.000080	1.000079	0.000059
Cattle	0.005747	0.006188	0.007469	0.006281	0.006044	0.007076	0.039248	0.006930	1.233883
Hogs	0.000571	0.000616	0.000744	0.000626	0.000601	0.000706	0.000687	0.000686	0.000567
Other Ag Prod	0.000611	0.000664	0.000823	0.000696	0.000642	0.007695	0.000904	0.000812	0.001528
Ag Services	0.011414	0.024265	0.049307	0.041525	0.000634	0.025117	0.059108	0.031546	0.024940
Oil/Gas Mining	0.025245	0.024853	0.032205	0.058749	0.030620	0.024984	0.015078	0.027790	0.014054
Oil/Gas Fld Sv	0.006851	0.006744	0.008742	0.015934	0.008306	0.006778	0.004092	0.007539	0.003814
Nonmetallic Mng	0.000148	0.000117	0.000246	0.000096	0.000072	0.000075	0.000089	0.000086	0.000071
Other Mining	0.000226	0.000214	0.000306	0.000390	0.000227	0.000279	0.000198	0.000245	0.000160
Maint & Repair	0.012276	0.011851	0.011243	0.010772	0.007692	0.009950	0.017216	0.019971	0.008889
Bldg Constr	0.000003	0.000003	0.000004	0.000004	0.000003	0.000004	0.000003	0.000003	0.000003
Category 1	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Category 2	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Category 3	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Category 4	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Category 5	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Category 6	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Heavy Constr	0.000051	0.000049	0.000047	0.000045	0.000032	0.000041	0.000071	0.000083	0.000037
Spec Tr Constr	0.012619	0.012183	0.011565	0.011088	0.007924	0.010234	0.017681	0.020506	0.009140
Meat Prod	0.012107	0.013031	0.015709	0.013207	0.012734	0.014866	0.014638	0.014632	0.012033
Dairy Prod	0.003932	0.004281	0.005343	0.004532	0.004167	0.005215	0.004942	0.004871	0.004077
Grain Mill Prd	0.003818	0.004234	0.004837	0.003951	0.004489	0.004556	0.212635	0.260577	0.110792
Other Food Prd	0.010226	0.011067	0.013527	0.011429	0.010868	0.012943	0.060063	0.059679	0.030461
Apparel	0.000254	0.000266	0.000332	0.000389	0.000278	0.000300	0.000962	0.001168	0.000588
Paper Prod	0.002942	0.002920	0.003104	0.002229	0.002516	0.002263	0.004736	0.005354	0.003276
Printing & Pub	0.015647	0.015332	0.017552	0.011801	0.013406	0.012577	0.013869	0.014894	0.011772
Ind Chemicals	0.000419	0.000405	0.000393	0.000471	0.000416	0.000270	0.000306	0.000388	0.000255
Ag Chemicals	0.046475	0.056986	0.042270	0.025239	0.081443	0.016489	0.016132	0.006102	0.018036
Other Chemicals	0.084143	0.078801	0.052963	0.033675	0.080525	0.012297	0.032865	0.045611	0.032255
Petro & Coal	0.053054	0.049726	0.071493	0.143850	0.059163	0.056766	0.032402	0.067894	0.030185
Rubber/Plastic	0.002290	0.002250	0.002214	0.003390	0.002802	0.001988	0.001843	0.001805	0.001525
Cement/Concr	0.003003	0.002069	0.005572	0.000624	0.000498	0.000612	0.001332	0.001141	0.001035
O Stone/Clay	0.001211	0.001262	0.001494	0.001694	0.001374	0.001467	0.001223	0.001192	0.001042
Primary Metals	0.001487	0.001364	0.001180	0.003380	0.002262	0.001227	0.000967	0.000849	0.000738
Fab Metals	0.003911	0.003618	0.003312	0.008481	0.005473	0.003324	0.002856	0.002807	0.002117
O Fab Metals	0.002226	0.002105	0.001945	0.005031	0.003238	0.001946	0.001659	0.001334	0.001207
Farm Machinery	0.025081	0.022579	0.018268	0.062354	0.039952	0.020107	0.014395	0.011412	0.011036
Constr Mach	0.000147	0.000141	0.000153	0.000144	0.000223	0.000102	0.000105	0.000115	0.000103
Food/Spec Mach	0.000495	0.000475	0.000667	0.000509	0.000397	0.000280	0.000379	0.001178	0.000296
Elec Mach	0.001970	0.002091	0.002528	0.002260	0.002149	0.002383	0.002125	0.002208	0.001819
Other Mach	0.000914	0.000921	0.001013	0.001338	0.001080	0.000971	0.000884	0.000898	0.000725
Motor Vehicles	0.001077	0.001125	0.001298	0.001571	0.001249	0.001305	0.001104	0.001118	0.000957
Aerospace	0.002896	0.002787	0.002967	0.001549	0.005597	0.001702	0.002052	0.002151	0.002307
Trailer Coach	0.000142	0.000155	0.000195	0.000166	0.000151	0.000191	0.000157	0.000154	0.000139
O Trans Eq	0.000055	0.000058	0.000071	0.000074	0.000061	0.000068	0.000060	0.000063	0.000051
Other Mfg	0.004121	0.003893	0.003926	0.002129	0.002730	0.001719	0.002734	0.002353	0.002258
RR Transp	0.006050	0.006129	0.007384	0.008460	0.006706	0.007028	0.007144	0.007790	0.005532
Motor Freight	0.016139	0.016621	0.021879	0.030221	0.022385	0.016195	0.015131	0.018314	0.013189
Other Transp	0.007469	0.007223	0.008147	0.008511	0.006544	0.005821	0.005327	0.006199	0.004638
Communications	0.015338	0.014957	0.016240	0.016761	0.017021	0.013858	0.013046	0.013853	0.011179
Elec/Gas/SanSr	0.042116	0.043371	0.050945	0.056411	0.049291	0.075298	0.053403	0.048463	0.039866
Groc Whlse	0.003359	0.003651	0.004534	0.003845	0.003549	0.004404	0.008620	0.009295	0.005619
Farm Prod	0.004527	0.004540	0.005852	0.003776	0.002039	0.006523	0.030188	0.031789	0.025869
Mach/Equip	0.005291	0.004973	0.005917	0.010023	0.008448	0.005591	0.006452	0.008630	0.004728
O Whlse Trade	0.024654	0.026712	0.030090	0.025859	0.018929	0.035588	0.043726	0.061772	0.039052
Farm Eq Dealer	0.016195	0.015061	0.026443	0.012722	0.009347	0.003764	0.011603	0.033314	0.008046
Gas Serv Stat	0.008691	0.008992	0.014535	0.021469	0.013600	0.011147	0.004862	0.009500	0.005233
Eating/Drink	0.018093	0.019341	0.023703	0.019376	0.018757	0.022257	0.019164	0.019257	0.016933
O Retail Trade	0.037618	0.040956	0.051217	0.043800	0.039743	0.050031	0.041707	0.041421	0.036705
Banking	0.061593	0.058324	0.060603	0.027318	0.126679	0.030342	0.040567	0.042979	0.047928
Other Finance	0.007314	0.007663	0.008910	0.006314	0.007510	0.007217	0.007273	0.007486	0.006324
Ins/Real Est	0.043112	0.040261	0.046813	0.014663	0.014164	0.022632	0.022676	0.018637	0.020685
Lodging	0.004114	0.004377	0.005372	0.004725	0.004559	0.005060	0.004569	0.004750	0.004037
Personal Serv	0.008637	0.009519	0.011561	0.009757	0.008707	0.011644	0.013171	0.012891	0.009441
Business Serv	0.055171	0.054262	0.058196	0.031280	0.028704	0.036979	0.040249	0.039779	0.032967
Medical/Health	0.035896	0.039183	0.049054	0.041915	0.038142	0.048164	0.040545	0.039840	0.035356
Other Services	0.043803	0.044735	0.054686	0.044382	0.043722	0.049497	0.043918	0.043645	0.039063
Households	0.502523	0.548811	0.687471	0.586524	0.534410	0.675408	0.555767	0.545243	0.490566

Category4	Category5	Category6	Heavy Constr	SpecTrade Constr	Meat Products	Dairy Products	GrainMill Products	OtherFood Products	Apparel	Paper Products	Food
0.000679	0.000490	0.000404	0.000676	0.000780	0.032886	0.033413	0.010708	0.003031	0.000165	0.000441	0.000380
0.001360	0.000983	0.000809	0.001354	0.001566	0.069600	0.047583	0.036159	0.007039	0.000330	0.000885	0.000761
0.001034	0.000751	0.000618	0.001027	0.001187	0.016431	0.019548	0.240839	0.025206	0.000252	0.000665	0.000579
0.000062	0.000049	0.000040	0.000059	0.000070	0.000514	0.000054	0.000095	0.000061	0.000015	0.000038	0.000034
0.000069	0.000049	0.000041	0.000068	0.000077	0.000094	0.000291	0.000850	0.005185	0.000016	0.000044	0.000038
0.000786	0.000569	0.000468	0.000783	0.000908	0.050873	0.006886	0.002443	0.002553	0.000191	0.000514	0.000441
0.002052	0.001460	0.001210	0.002026	0.002311	0.001085	0.391463	0.002612	0.008643	0.000493	0.001306	0.001134
0.000065	0.000048	0.000039	0.000064	0.000076	0.000039	0.000290	0.000134	0.000596	0.000016	0.000041	0.000037
0.007223	0.005228	0.004299	0.007202	0.008352	0.490523	0.019173	0.008600	0.022323	0.001757	0.004729	0.004053
0.000719	0.000521	0.000428	0.000717	0.000833	0.047229	0.000651	0.000842	0.002141	0.000175	0.000470	0.000404
0.000831	0.000652	0.000537	0.000789	0.000941	0.006886	0.000715	0.001276	0.000817	0.000206	0.000504	0.000457
0.001363	0.001996	0.003787	0.000759	0.000894	0.010977	0.023490	0.012934	0.002493	0.000188	0.000491	0.000435
0.021697	0.036828	0.033045	0.061514	0.013701	0.009188	0.019143	0.015423	0.010737	0.003825	0.011533	0.006482
0.006598	0.013213	0.011768	0.018956	0.003760	0.002493	0.005195	0.004186	0.002914	0.001039	0.003131	0.001760
0.022257	0.101256	0.088285	0.071477	0.001334	0.000044	0.000091	0.000095	0.000047	0.000040	0.000096	0.000040
0.002057	0.005922	0.004445	0.004179	0.000503	0.000114	0.000260	0.000187	0.000164	0.000078	0.000192	0.000125
0.008489	0.035592	0.015984	0.007373	0.006364	0.006563	0.025531	0.010651	0.007247	0.020362	0.050967	0.009495
0.000009	0.000014	0.000003	0.000005	0.000011	0.000002	0.000003	0.000002	0.000002	0.000001	0.000002	0.000002
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.014897	0.003006	0.000066	1.016013	0.004156	0.000027	0.000106	0.000044	0.000030	0.000084	0.000211	0.000039
0.009238	0.036801	0.016448	0.038975	1.031228	0.006765	0.026204	0.010974	0.007506	0.020890	0.052274	0.009752
0.015186	0.010986	0.009036	0.015143	0.017551	1.070324	0.013907	0.018259	0.047840	0.003692	0.009952	0.008515
0.005453	0.003874	0.003212	0.005383	0.006130	0.002798	1.100924	0.005872	0.016143	0.001309	0.003470	0.003008
0.004203	0.003060	0.002512	0.004173	0.004831	0.056054	0.087855	1.101349	0.095715	0.001023	0.002697	0.002357
0.013575	0.009594	0.008079	0.013446	0.015183	0.018476	0.057435	0.167685	1.023517	0.003243	0.008738	0.007417
0.000319	0.000356	0.000297	0.000465	0.000605	0.000343	0.000612	0.004032	0.000518	1.029865	0.000191	0.000143
0.002727	0.002613	0.001963	0.003043	0.002600	0.011670	0.035294	0.015782	0.006094	0.010197	1.065743	0.018818
0.013450	0.010656	0.008641	0.016654	0.015884	0.009626	0.024362	0.019722	0.017952	0.005713	0.012188	1.106662
0.000502	0.002944	0.001124	0.001187	0.001466	0.000265	0.001410	0.000404	0.000281	0.000203	0.011279	0.000123
0.000376	0.001843	0.000474	0.000475	0.000349	0.008261	0.006521	0.013156	0.002343	0.000078	0.000209	0.000169
0.007767	0.009526	0.006540	0.017023	0.023260	0.016568	0.018251	0.026751	0.015985	0.002141	0.030002	0.005022
0.051630	0.087244	0.080347	0.153492	0.032159	0.020215	0.043360	0.034405	0.024348	0.008376	0.020708	0.013996
0.010083	0.006069	0.001516	0.003687	0.001755	0.000949	0.002517	0.001757	0.003347	0.005244	0.001007	0.000749
0.092436	0.119313	0.029764	0.065232	0.027346	0.000600	0.001179	0.001756	0.000553	0.000649	0.001578	0.000444
0.003722	0.005389	0.001073	0.001822	0.004322	0.000699	0.001102	0.001010	0.000831	0.000373	0.000946	0.000737
0.001158	0.001380	0.001161	0.003097	0.003763	0.000390	0.000603	0.000499	0.000256	0.000225	0.000334	0.000304
0.023776	0.030633	0.010008	0.013511	0.020870	0.001254	0.002338	0.002196	0.004314	0.001075	0.003086	0.000921
0.001083	0.001361	0.002065	0.000652	0.000676	0.000646	0.000956	0.000893	0.000470	0.000676	0.000347	0.000264
0.000286	0.000239	0.000195	0.000365	0.000320	0.005080	0.005837	0.005580	0.001237	0.000098	0.000243	0.000163
0.023264	0.023974	0.006930	0.005331	0.000170	0.000074	0.000118	0.000108	0.000076	0.000039	0.000076	0.000047
0.000238	0.000273	0.000223	0.000402	0.000237	0.000370	0.001379	0.000382	0.000287	0.000087	0.000231	0.000348
0.002575	0.003040	0.043983	0.005180	0.014441	0.001277	0.004178	0.001892	0.001621	0.004117	0.002066	0.001401
0.001601	0.001714	0.000937	0.001351	0.002837	0.000501	0.000831	0.000996	0.000715	0.000918	0.000749	0.001513
0.001303	0.000925	0.000779	0.001267	0.001354	0.000647	0.001212	0.000930	0.000856	0.000293	0.001283	0.000628
0.001188	0.001006	0.001177	0.001552	0.001474	0.001427	0.001776	0.001806	0.001131	0.000548	0.001066	0.000726
0.000189	0.000140	0.000114	0.000187	0.000224	0.000096	0.000143	0.000140	0.000117	0.000047	0.000120	0.000109
0.000102	0.000218	0.000186	0.000196	0.000079	0.000045	0.000058	0.000070	0.000067	0.000025	0.000063	0.000038
0.011521	0.017345	0.015420	0.003024	0.004283	0.003619	0.003982	0.004076	0.010653	0.002954	0.001366	0.001655
0.006805	0.006248	0.005143	0.009724	0.006739	0.006838	0.007236	0.011133	0.011674	0.004040	0.010246	0.004163
0.017904	0.031754	0.047317	0.013344	0.012821	0.020727	0.019634	0.023121	0.021742	0.021930	0.079350	0.017449
0.006057	0.005965	0.005034	0.010049	0.006156	0.003171	0.005217	0.007246	0.004995	0.001749	0.004323	0.002770
0.015762	0.015111	0.009843	0.017265	0.013503	0.008194	0.015135	0.013977	0.012602	0.009790	0.019704	0.013006
0.053670	0.054686	0.033426	0.054258	0.046384	0.029664	0.075658	0.044877	0.048717	0.024035	0.059498	0.041179
0.005066	0.003393	0.002862	0.004771	0.005220	0.006767	0.006697	0.025564	0.041792	0.001123	0.004097	0.002543
0.001378	0.000969	0.000829	0.001333	0.001489	0.024593	0.013262	0.116009	0.030711	0.000319	0.000980	0.000724
0.006334	0.007292	0.005140	0.018962	0.006136	0.011368	0.028562	0.015193	0.013146	0.012950	0.019034	0.006966
0.021332	0.016398	0.014549	0.038329	0.049116	0.027909	0.054840	0.037869	0.065819	0.012583	0.029899	0.015922
0.000166	0.000135	0.000139	0.000157	0.000183	0.003741	0.004690	0.006949	0.001037	0.000039	0.000101	0.000089
0.006813	0.004628	0.022846	0.006472	0.008396	0.003121	0.007173	0.005598	0.004196	0.002045	0.002918	0.002442
0.032206	0.018331	0.016987	0.031070	0.027133	0.012066	0.031263	0.018113	0.016822	0.006470	0.020313	0.013906
0.061989	0.039912	0.033624	0.054984	0.059818	0.025771	0.039348	0.038198	0.032860	0.012729	0.062960	0.028886
0.015194	0.013766	0.011037	0.024728	0.019454	0.028960	0.033863	0.035274	0.019897	0.009410	0.014653	0.011168
0.008582	0.005195	0.004197	0.009477	0.009939	0.004272	0.006508	0.006278	0.005536	0.002958	0.010999	0.004073
0.031137	0.026736	0.021584	0.029208	0.023704	0.014749	0.027964	0.029098	0.023093	0.024787	0.033671	0.010708
0.018335	0.008333	0.010280	0.009966	0.006343	0.003309	0.006510	0.004980	0.004302	0.001797	0.004333	0.003122
0.010489	0.007683	0.006340	0.017968	0.013024	0.006728	0.013145	0.010993	0.012479	0.003112	0.008018	0.005901
0.042146	0.033516	0.025421	0.056760	0.052890	0.027875	0.047811	0.057056	0.046566	0.015428	0.039948	0.025161
0.048447	0.036327	0.029712	0.047958	0.062685	0.024425	0.037097	0.038000	0.046977	0.011934	0.030886	0.027476
0.050762	0.037109	0.031963	0.075657	0.067313	0.031240	0.050158	0.044061	0.033614	0.015562	0.039444	0.027843
0.666236	0.493567	0.401172	0.661225	0.789363	0.339383	0.505435	0.493876	0.411857	0.165644	0.422844	0.384989

Food Mach.	Electrical Machinery	Other Machinery	Motor Vehicles	Aerospace	Trailer Coaches	O Transp Equipm't	Other Mfg	RR Transp	Motor Freight	Other Transp	Cont.
0.000497	0.000563	0.000505	0.000251	0.000501	0.000622	0.000500	0.000464	0.000709	0.000626	0.000568	0.000673
0.000996	0.001128	0.001012	0.000506	0.001004	0.001247	0.001003	0.000934	0.001422	0.001252	0.001138	0.001346
0.000757	0.000859	0.000772	0.000373	0.000764	0.000950	0.000764	0.000752	0.001081	0.000956	0.000867	0.001022
0.000046	0.000050	0.000046	0.000022	0.000046	0.000067	0.000045	0.000376	0.000064	0.000055	0.000052	0.000058
0.000049	0.000056	0.000050	0.000024	0.000049	0.000062	0.000049	0.000049	0.000070	0.000064	0.000056	0.000069
0.000577	0.000653	0.000586	0.000297	0.000582	0.000723	0.000581	0.000585	0.000823	0.000723	0.000659	0.000777
0.001481	0.001679	0.001508	0.000709	0.001491	0.001857	0.001490	0.001377	0.002110	0.001884	0.001691	0.002039
0.000049	0.000055	0.000049	0.000023	0.000049	0.000060	0.000049	0.000046	0.000070	0.000060	0.000056	0.000064
0.005303	0.006005	0.005385	0.002740	0.005346	0.006634	0.005342	0.004936	0.007569	0.006650	0.006058	0.007145
0.000529	0.000599	0.000537	0.000273	0.000534	0.000661	0.000533	0.000493	0.000756	0.000662	0.000604	0.000712
0.000616	0.000674	0.000610	0.000288	0.000609	0.000900	0.000600	0.005034	0.000857	0.000728	0.000690	0.000772
0.000571	0.000646	0.000577	0.000281	0.000578	0.000711	0.000575	0.000617	0.000819	0.000705	0.000654	0.000753
0.010609	0.012125	0.011818	0.005663	0.006925	0.012148	0.011560	0.007214	0.035969	0.033263	0.071269	0.011748
0.002883	0.003293	0.003227	0.001538	0.001881	0.003299	0.003139	0.001959	0.009761	0.009022	0.019328	0.003188
0.000160	0.000118	0.000675	0.000048	0.000080	0.000130	0.000116	0.000068	0.000084	0.000060	0.000058	0.000057
0.000253	0.000207	0.000252	0.000123	0.000120	0.000227	0.000182	0.000152	0.000839	0.000232	0.000419	0.000175
0.020179	0.048294	0.030382	0.012043	0.004475	0.013895	0.017108	0.005496	0.017846	0.004461	0.010311	0.005456
0.000003	0.000003	0.000003	0.000001	0.000015	0.000003	0.000002	0.000002	0.000003	0.000003	0.000003	0.000003
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000084	0.000200	0.000126	0.000050	0.000019	0.000059	0.000071	0.000032	0.000092	0.000019	0.000043	0.000023
0.020874	0.049653	0.031223	0.012501	0.004623	0.014547	0.017634	0.008034	0.022743	0.004604	0.010613	0.005622
0.011141	0.012613	0.011309	0.005771	0.011230	0.013936	0.011220	0.010368	0.015900	0.013971	0.012724	0.015027
0.003928	0.004453	0.004001	0.001880	0.003954	0.004929	0.003953	0.003648	0.005596	0.005005	0.004485	0.005420
0.003084	0.003494	0.003135	0.001514	0.003112	0.003860	0.003106	0.003075	0.004407	0.003878	0.003532	0.004154
0.000960	0.010970	0.009887	0.004812	0.009699	0.012246	0.009734	0.009596	0.013732	0.012494	0.011034	0.013510
0.000231	0.000241	0.000223	0.000260	0.000194	0.000315	0.000221	0.000909	0.000350	0.000315	0.000427	0.000240
0.004147	0.002851	0.003048	0.001575	0.002279	0.007090	0.004002	0.003311	0.001999	0.002464	0.002321	0.004375
0.011429	0.011895	0.019967	0.005532	0.010357	0.021490	0.021374	0.008981	0.022565	0.016410	0.012315	0.017310
0.000341	0.000280	0.000534	0.000204	0.000289	0.000374	0.000709	0.000169	0.000281	0.000277	0.000363	0.000188
0.000231	0.000259	0.000236	0.000115	0.000218	0.000300	0.000233	0.000708	0.000399	0.000356	0.000469	0.000297
0.007016	0.006670	0.006774	0.003814	0.005041	0.011500	0.007127	0.004999	0.007348	0.005833	0.005821	0.006143
0.022279	0.027997	0.026172	0.012585	0.015710	0.027401	0.026790	0.015564	0.090478	0.084313	0.182514	0.027273
0.001436	0.003681	0.005551	0.007517	0.001341	0.002523	0.106616	0.005962	0.001961	0.001238	0.001211	0.001253
0.001023	0.001642	0.001327	0.000490	0.000423	0.000901	0.001256	0.001044	0.000964	0.000428	0.000589	0.000468
0.001049	0.001204	0.001098	0.000510	0.000953	0.001209	0.001002	0.000956	0.001430	0.001128	0.001093	0.001208
0.033324	0.005173	0.065135	0.005484	0.014892	0.022709	0.015472	0.001338	0.001098	0.000174	0.000523	0.000639
0.078231	0.021049	0.028695	0.000773	0.003504	0.076282	0.048961	0.008594	0.003117	0.001127	0.007541	0.000958
0.010004	0.012309	0.003974	0.000761	0.006424	0.041736	0.015584	0.003112	0.000905	0.000378	0.001981	0.000352
0.000312	0.000339	0.000361	0.000290	0.000202	0.000485	0.000273	0.000249	0.005648	0.000334	0.001250	0.000257
0.000484	0.000131	0.000901	0.000096	0.000220	0.000401	0.000283	0.000069	0.000103	0.000095	0.000654	0.000065
1.000364	0.000366	0.000287	0.000455	0.000145	0.000596	0.000271	0.000220	0.010791	0.000278	0.001528	0.000194
0.006810	1.049678	0.028158	0.001471	0.017220	0.002771	0.002204	0.002846	0.003031	0.002124	0.002367	0.002345
0.017815	0.003233	1.004146	0.001136	0.003266	0.003752	0.003038	0.001393	0.003823	0.000760	0.001336	0.007764
0.000956	0.000975	0.001024	1.002793	0.000839	0.103720	0.000877	0.000756	0.001223	0.000985	0.000964	0.001037
0.001420	0.010838	0.001452	0.002323	1.019620	0.002100	0.001581	0.001824	0.001264	0.001135	0.003080	0.002601
0.000143	0.000162	0.000144	0.000069	0.000146	1.000176	0.000144	0.000134	0.000206	0.000175	0.000165	0.000185
0.000159	0.000125	0.000157	0.000149	0.000068	0.000184	1.000093	0.000047	0.003623	0.000063	0.000068	0.000062
0.006047	0.001322	0.003406	0.000584	0.002237	0.039637	0.001358	1.030726	0.001758	0.001281	0.002716	0.001156
0.025156	0.023960	0.012830	0.036709	0.005513	0.033786	0.012379	0.004795	1.027523	0.006606	0.007804	0.006155
0.035578	0.133524	0.037454	0.026861	0.008336	0.041387	0.019305	0.016106	0.017805	1.010930	0.011926	0.009735
0.004300	0.005012	0.004797	0.007555	0.003583	0.006144	0.004535	0.004202	0.013379	0.007214	1.011758	0.004997
0.022734	0.016265	0.021157	0.005879	0.012033	0.024193	0.019431	0.006845	0.013819	0.019355	0.019436	1.019018
0.084135	0.055270	0.071074	0.033637	0.035416	0.065358	0.049859	0.048605	0.047382	0.033412	0.043592	0.051255
0.003333	0.003764	0.003403	0.001596	0.003319	0.004186	0.003361	0.003080	0.004877	0.004231	0.003852	0.004517
0.000948	0.001074	0.000976	0.000468	0.000948	0.001200	0.000957	0.000936	0.001347	0.001218	0.001089	0.001279
0.007861	0.005493	0.077888	0.001670	0.004712	0.017127	0.016716	0.002616	0.005587	0.004331	0.010357	0.007921
0.038886	0.036800	0.030143	0.007594	0.012032	0.018520	0.021389	0.012460	0.020776	0.019645	0.016363	0.021610
0.000117	0.000132	0.000118	0.000057	0.000118	0.005635	0.000117	0.000188	0.000167	0.000145	0.000134	0.000155
0.002348	0.003712	0.003851	0.001114	0.001234	0.006856	0.003073	0.002076	0.003635	0.016383	0.005806	0.003982
0.017639	0.020094	0.019181	0.008339	0.016465	0.024730	0.017497	0.015142	0.023064	0.028620	0.019121	0.034075
0.037823	0.042513	0.038160	0.017996	0.037983	0.047008	0.038524	0.034782	0.055219	0.045791	0.045147	0.048319
0.020850	0.013234	0.015981	0.008750	0.009565	0.031177	0.026939	0.014047	0.018341	0.017298	0.019295	0.012942
0.005460	0.005990	0.005835	0.002717	0.005222	0.007213	0.005534	0.004867	0.011287	0.006347	0.008766	0.006628
0.029601	0.022023	0.029948	0.022437	0.025392	0.193629	0.022400	0.007266	0.012660	0.010972	0.021119	0.009655
0.004574	0.005445	0.006554	0.001989	0.003601	0.005875	0.004212	0.003336	0.005267	0.013919	0.004370	0.005094
0.009269	0.009937	0.009373	0.003585	0.007358	0.009431	0.008042	0.007332	0.010689	0.009702	0.008733	0.009888
0.028550	0.041993	0.066876	0.017997	0.027108	0.072300	0.042564	0.033276	0.028816	0.082892	0.038509	0.030275
0.037535	0.041085	0.036633	0.017330	0.036627	0.044471	0.038306	0.033748	0.052935	0.043948	0.041560	0.046612
0.042814	0.044116	0.047391	0.018003	0.036591	0.050062	0.039204	0.034865	0.0524			

El Sal	Grocery Whlsc	Farm Products	Mach/Equip Whlsc	Other Whlsc	Farm Eq Dealers	Gas Serv Stations	Eating/ Drinking	Other Retail	Banking	Other Finance	
0.000252	0.000912	0.000580	0.000821	0.000793	0.000782	0.000636	0.003313	0.000831	0.000790	0.000689	0.000770
0.000506	0.001849	0.001163	0.001643	0.001585	0.001567	0.001280	0.006428	0.001656	0.001582	0.001381	0.001536
0.000386	0.001692	0.000902	0.001249	0.001204	0.001193	0.001081	0.004698	0.001263	0.001203	0.001053	0.001173
0.000023	0.000077	0.000054	0.000072	0.000068	0.000070	0.000057	0.000079	0.000071	0.000070	0.000061	0.000065
0.000025	0.000120	0.000057	0.000084	0.000082	0.000077	0.000089	0.000506	0.000084	0.000080	0.000069	0.000080
0.000293	0.001052	0.000672	0.000949	0.000915	0.000908	0.000733	0.003551	0.000947	0.000914	0.000799	0.000885
0.000753	0.002625	0.001726	0.002483	0.002415	0.002332	0.001893	0.012528	0.002635	0.002388	0.002066	0.002343
0.000025	0.000087	0.000057	0.000078	0.000075	0.000077	0.000064	0.000163	0.000079	0.000076	0.000067	0.000072
0.002690	0.009673	0.006177	0.008718	0.008405	0.008343	0.006732	0.032523	0.008683	0.008400	0.007342	0.008135
0.000268	0.000963	0.000616	0.000868	0.000836	0.000833	0.000671	0.003119	0.000864	0.000837	0.000732	0.000808
0.000302	0.001030	0.000719	0.000957	0.000903	0.000943	0.000762	0.001057	0.000946	0.000942	0.000818	0.000863
0.000288	0.001021	0.000667	0.000920	0.000878	0.000900	0.000727	0.001990	0.000926	0.000888	0.000785	0.000844
0.037092	0.012658	0.014613	0.025613	0.017293	0.014291	0.010513	0.012005	0.014526	0.010302	0.009637	0.013370
0.010076	0.003437	0.003966	0.006950	0.004693	0.003878	0.002880	0.003259	0.003943	0.002797	0.002617	0.003629
0.000072	0.000094	0.000066	0.000088	0.000085	0.000074	0.000902	0.000065	0.000080	0.000084	0.000078	0.000069
0.002197	0.000257	0.000232	0.000329	0.000240	0.000198	0.000192	0.000280	0.000217	0.000188	0.000179	0.000185
0.025902	0.020378	0.019065	0.020541	0.008637	0.010327	0.007460	0.009495	0.012759	0.023592	0.024658	0.015232
0.000003	0.000004	0.000003	0.000004	0.000005	0.000004	0.000003	0.000004	0.000004	0.000004	0.000003	0.000003
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000108	0.000085	0.000079	0.000085	0.000036	0.000043	0.000031	0.000039	0.000053	0.000098	0.000102	0.000063
0.026687	0.020996	0.019604	0.021141	0.008906	0.010698	0.007678	0.009777	0.013240	0.024221	0.025298	0.015643
0.005647	0.020364	0.012974	0.018331	0.017681	0.017526	0.014142	0.069715	0.018246	0.017660	0.015421	0.017092
0.001998	0.006921	0.004576	0.006600	0.006426	0.006185	0.004983	0.034277	0.007028	0.006345	0.005484	0.006236
0.001568	0.006936	0.003681	0.005076	0.004889	0.004858	0.004363	0.018427	0.005136	0.004889	0.004278	0.004734
0.004934	0.023735	0.011272	0.016481	0.016109	0.015209	0.017504	0.099774	0.016579	0.015788	0.013542	0.015654
0.000215	0.000324	0.001033	0.000364	0.000337	0.000296	0.000237	0.000287	0.000411	0.000288	0.000258	0.000287
0.001467	0.016079	0.009772	0.003311	0.003586	0.003260	0.003179	0.012538	0.005574	0.003787	0.005985	0.023042
0.008954	0.023484	0.030566	0.033594	0.024544	0.045940	0.035219	0.032861	0.038771	0.044363	0.047488	0.053659
0.000243	0.000506	0.000297	0.000302	0.000993	0.000239	0.000229	0.000375	0.000384	0.000264	0.000292	0.000575
0.000227	0.000407	0.005959	0.000404	0.000362	0.000354	0.000289	0.001048	0.000391	0.000341	0.000299	0.000338
0.003083	0.078878	0.006034	0.007885	0.007898	0.007764	0.006060	0.009257	0.011123	0.007548	0.006876	0.007524
0.034221	0.027737	0.032211	0.060862	0.040709	0.033979	0.024507	0.024652	0.034248	0.023167	0.021555	0.031400
0.000770	0.002056	0.001186	0.001624	0.001753	0.001679	0.001250	0.001763	0.002095	0.001746	0.001462	0.001597
0.000838	0.000975	0.000806	0.000953	0.000614	0.000676	0.000514	0.000584	0.000744	0.001017	0.001000	0.000765
0.001158	0.001647	0.001145	0.001549	0.002133	0.001519	0.001190	0.001453	0.001584	0.001474	0.001330	0.001369
0.000701	0.000306	0.000334	0.000436	0.000273	0.000950	0.000178	0.000258	0.000463	0.000927	0.000287	0.000290
0.002205	0.001777	0.001588	0.003739	0.002254	0.002708	0.000900	0.001405	0.003626	0.001546	0.001318	0.001583
0.002166	0.000517	0.001199	0.000620	0.000720	0.000872	0.000352	0.000510	0.000692	0.000728	0.000434	0.000639
0.000319	0.000447	0.000341	0.001251	0.000341	0.005317	0.000272	0.000750	0.000493	0.000319	0.000315	0.000491
0.000100	0.000091	0.000088	0.000891	0.000096	0.000120	0.000080	0.000076	0.000097	0.001244	0.000122	0.000154
0.000486	0.000466	0.000314	0.000437	0.000300	0.014431	0.000243	0.000318	0.000600	0.000304	0.000311	0.000396
0.001549	0.003028	0.002197	0.004712	0.004277	0.002804	0.002171	0.002204	0.003235	0.004874	0.002578	0.002651
0.001074	0.001154	0.001291	0.001766	0.000931	0.001267	0.000747	0.000937	0.001128	0.001222	0.001022	0.001189
0.000448	0.001781	0.000991	0.001320	0.004183	0.001411	0.001085	0.001472	0.019648	0.001232	0.001265	0.001265
0.000589	0.001682	0.001325	0.001904	0.001656	0.002137	0.001128	0.001408	0.006354	0.043248	0.002405	0.002069
0.000072	0.000245	0.000167	0.000227	0.000214	0.000227	0.000180	0.000167	0.000226	0.000219	0.000196	0.000205
0.000134	0.000139	0.000078	0.000115	0.000084	0.000135	0.000058	0.000067	0.000175	0.000070	0.000063	0.000067
0.000975	0.002586	0.006588	0.004337	0.003221	0.002355	0.004229	0.003257	0.002492	0.007894	0.002144	0.002775
0.032758	0.024807	0.011689	0.018286	0.010372	0.024583	0.005016	0.008672	0.036076	0.006133	0.005773	0.006188
0.007544	0.018334	0.027269	0.041775	0.021351	0.041293	0.021285	0.014040	0.019052	0.010546	0.009700	0.011272
0.003340	0.005817	0.005050	0.006963	0.006001	0.005367	0.004529	0.004535	0.006092	0.006060	0.005786	0.009488
0.006777	0.027794	0.023820	0.034022	0.017703	0.017835	0.015139	0.037207	0.016903	0.041234	0.038822	0.054789
1.013474	0.080135	0.071998	0.090827	0.064436	0.049333	0.043467	0.101193	0.054239	0.056388	0.054450	0.050382
0.001739	1.010049	0.004006	0.005638	0.006257	0.005418	0.004383	0.026765	0.043402	0.005341	0.004967	0.005421
0.000491	0.002067	1.015907	0.001620	0.001637	0.002012	0.001348	0.006668	0.006089	0.001520	0.001367	0.001526
0.002893	0.006514	0.007027	1.006126	0.005064	0.025692	0.005395	0.004992	0.010603	0.005384	0.005337	0.003490
0.013175	0.036775	0.016825	0.033488	1.028391	0.022160	0.042519	0.075926	0.160581	0.020588	0.020315	0.026659
0.000059	0.000216	0.000137	0.000190	0.000182	1.000184	0.000151	0.000532	0.000191	0.000184	0.000162	0.000175
0.002303	0.013207	0.002631	0.009502	0.006759	0.007018	1.002560	0.004527	0.010001	0.002012	0.001930	0.003005
0.009461	0.033456	0.019860	0.040722	0.044556	0.026719	0.021096	1.021618	0.039159	0.037924	0.027478	0.045848
0.020185	0.085539	0.046868	0.060198	0.067691	0.065051	0.047884	0.064272	1.068771	0.057927	0.060571	0.058695
0.009686	0.024078	0.021686	0.031978	0.026057	0.038299	0.017006	0.021233	0.022526	1.036477	0.045186	0.036242
0.002835	0.021493	0.006276	0.008499	0.007990	0.014122	0.006501	0.008929	0.011995	0.025844	1.022662	0.010271
0.007460	0.023321	0.018316	0.024913	0.022736	0.054541	0.010640	0.018480	0.034597	0.030801	0.040057	1.070926
0.001976	0.008945	0.010166	0.029509	0.013115	0.006521	0.005009	0.005184	0.007302	0.009678	0.008063	0.009378
0.004074	0.027929	0.017850	0.019840	0.061128	0.012039	0.010489	0.018035	0.022956	0.012843	0.011615	0.011088
0.038499	0.051770	0.047264	0.054482	0.053249	0.037435	0.051947	0.044084	0.056828	0.056223	0.074529	0.188294
0.018399	0.062130	0.042259	0.057127	0.054087	0.057089	0.045435	0.043893	0.070737	0.052286	0.049534	0.051634
0.020636	0.071872	0.077202	0.092876	0.077717	0.058669	0.045707	0.049509	0.069612	0.096953		

Lodging	Personal Services	Business Services	Medical/Health	Other Services	Households
0.000548	0.000617	0.000682	0.000751	0.000743	0.001257
0.001096	0.001234	0.001342	0.001503	0.001491	0.002523
0.000837	0.000940	0.001075	0.001153	0.001156	0.001918
0.000048	0.000054	0.000059	0.000065	0.000067	0.000114
0.000055	0.000064	0.000073	0.000074	0.000075	0.000123
0.000634	0.000712	0.000772	0.000866	0.000862	0.001462
0.001643	0.001874	0.002019	0.002293	0.002210	0.003743
0.000053	0.000058	0.000061	0.000071	0.000073	0.000124
0.005826	0.006545	0.007096	0.007951	0.007920	0.013437
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0.000641	0.000721	0.000744	0.000866	0.000890	0.001522
0.000619	0.000685	0.000727	0.000843	0.000852	0.001456
0.011459	0.010319	0.019148	0.009398	0.009706	0.014354
0.003111	0.002801	0.005195	0.002551	0.002634	0.003896
0.000063	0.000050	0.000057	0.000055	0.000058	0.000093
0.000295	0.000230	0.000183	0.000151	0.000139	0.000207
0.018720	0.006396	0.008211	0.005034	0.005743	0.006837
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0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
0.000077	0.000027	0.000034	0.000021	0.000024	0.000028
0.019218	0.006597	0.008449	0.005189	0.005914	0.007049
0.012235	0.013759	0.014747	0.016716	0.016638	0.028227
0.004363	0.004984	0.005376	0.006103	0.005859	0.009921
0.003395	0.003810	0.004187	0.004704	0.004710	0.007821
0.010824	0.012478	0.013509	0.014571	0.014799	0.024293
0.001190	0.000229	0.000339	0.000269	0.000281	0.000439
0.007733	0.006712	0.006081	0.002468	0.002575	0.002491
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0.000320	0.000688	0.001245	0.000180	0.000339	0.000219
0.000260	0.000279	0.000324	0.000319	0.000333	0.000535
0.007532	0.006380	0.006618	0.012208	0.007158	0.011779
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0.001159	0.001227	0.002663	0.001607	0.001528	0.002343
0.000769	0.000465	0.000538	0.000493	0.000523	0.000813
0.001098	0.001122	0.001219	0.001332	0.001369	0.002334
0.000270	0.000208	0.000470	0.000178	0.000204	0.000250
0.001303	0.001006	0.004248	0.000775	0.000968	0.001109
0.000544	0.000485	0.002192	0.000354	0.000450	0.000466
0.000312	0.000315	0.001648	0.000278	0.000306	0.000425
0.000091	0.000087	0.000501	0.000064	0.000329	0.000082
0.000489	0.000393	0.001051	0.000209	0.000492	0.000250
0.002071	0.002025	0.002988	0.002684	0.002594	0.004065
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0.001180	0.000996	0.001230	0.001174	0.001256	0.001985
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0.000059	0.000059	0.000062	0.000110	0.000093	0.000107
0.001404	0.005980	0.003462	0.001727	0.002164	0.001972
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0.006315	0.007929	0.027710	0.005112	0.012192	0.007018
0.037646	0.018817	0.025807	0.020876	0.017885	0.014293
0.111741	0.083072	0.038782	0.043750	0.036712	0.052246
0.007038	0.006440	0.004796	0.004969	0.005056	0.008279
0.002831	0.002375	0.001513	0.001563	0.001495	0.002368
0.005399	0.005404	0.004170	0.002666	0.002570	0.003433
0.032644	0.018787	0.054612	0.017379	0.017667	0.026383
0.000127	0.000142	0.000153	0.000174	0.000191	0.000297
0.002462	0.002216	0.003393	0.001624	0.002450	0.002467
0.023494	0.033622	0.040962	0.026425	0.025943	0.039424
0.055312	0.046746	0.047559	0.055990	0.056214	0.094765
0.015384	0.017684	0.016842	0.018090	0.015288	0.020568
0.006230	0.006739	0.006729	0.008411	0.007921	0.012898
0.087998	0.047714	0.013215	0.037001	0.013543	0.014817
1.004356	0.007366	0.004983	0.005547	0.005293	0.008509
0.026937	1.013241	0.011070	0.013212	0.010785	0.018198
0.091163	0.083658	1.063641	0.037317	0.054874	0.035862
0.038963	0.042181	0.043849	1.102347	0.053728	0.092433
0.053620	0.049038	0.046126	0.052632	1.057645	0.090334
0.542579	0.591139	0.614218	0.732062	0.754240	1.298627



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**TESTIMONY OF PATRICK J. HURLEY
ON BEHALF OF
ECONOMIC LIFELINES**

TO

HOUSE TRANSPORTATION COMMITTEE

ON APRIL 4, 2002

ON

HB 3026

Mr. Chairman and Members of the House Transportation Committee.

I am Pat Hurley and appear on behalf of Economic Lifelines. Economic Lifelines is the coalition of organizations throughout the state dedicated to the best possible transportation system for the state of Kansas. We were actively involved in the passage of the 1999 CTP.

Attached is a Resolution adopted by our Board in December 1999, which reflects our membership's unanimous support for the implementation of the total 1999 program and the completion of all projects under that program. It also expresses our strongest possible opposition to any reduction in funding, which would result in the elimination of any of its projects. That remains our strong position today.

It also reflects the unanimous feeling of all the members of the Governor's Transportation 2000 Committee, which held hearings for twelve weeks across the state in 1998 and issued the report that laid the foundation for this program. Over 2,500 citizens from every county, including many Legislators and some of you, participated in those hearings. It was due to this unprecedented groundswell of public support and direct community participation that the Legislature responded by passing this program by over seventy percent in each house.

The 1999 Program represented not just a response to your constituents, but a commitment by the Legislature that those projects would truly be completed—just as was done in the 1989 program. The Legislature memorialized this commitment by incorporating the list of all of the promised projects into the Legislative Journal.

We believe that commitment by the Legislature remains as sincere today as in 1999 for we are yet to hear the first Legislator tell us that he or she supports reducing the program or favors eliminating any of the projects.

The funding dilemma confronting us all is a result of the horrible economic downturn confronting our State. The question is how can we continue to honor that commitment, how can we keep that promise?

The Governor has proposed one short-term solution, which would be the elimination of the entire demand transfer (\$147 million) taken out of the program and spent elsewhere in FY03. He proposes recovering an equivalent amount over the next seven years with a one-cent motor fuels tax increase and a three percent registration fee increase. While if passed this proposal may avoid eliminating any projects this year it could open a real Pandora's box for the future.

We have very grave concerns shared by many Legislators that once the Demand Transfer is eliminated entirely, even for a single year, it may well prove impossible to restore it again in the following years. If that occurred the total loss of the Demand Transfer over the remainder of the program would be approximately \$1.5 billion dollars. According to KDOT's testimony that would force the cancellation of every system enhancement project and almost every major modification project. The effect would be to virtually return Kansas to the woeful position we were in, in the

early 80's, one in which our neighboring state of Missouri currently finds itself. In short, such action could result in the total destruction of the entire program, together with the hopes and expectations and hard work of all the communities across the state who helped pass this program and now anxiously await its fulfillment.

In hearings this session before a special joint House Subcommittee of Appropriations and Transportation these very concerns were recognized, extensively discussed, and addressed in the reports of the Appropriations Committee's both in the House and Senate.

The Senate report expressed the concern "that with the elimination of the Demand Transfer in FY2003, and the current economic outlook of the state, that it will be difficult to reinstate the continuation of the Demand Transfer in the future with other issues like education and social services demanding the same funding."

The House Report concurred and went further stating "the Legislature should make every effort to maintain the integrity of the CTP."

Therefore, the House Appropriations Committee adopted the subcommittee report recommending introduction of the Legislation that is before you now as HB 3026.

Earlier this week, by teleconference, the Board of Economic Lifelines renewed its support for completion of the program and the necessary funding to accomplish that end. By a very substantial margin the Board voted to support any legislation that would restore and maintain that funding and more specifically voted to endorse HB 3026.

We obviously have members who are concerned about other severe cuts they are incurring this year, and new financial burdens being placed upon them, and how those might yet be addressed this session. In endorsing HB 3026 our Board respects those concerns; however our overriding reasons for supporting this legislation here today are three-fold:

First, it would provide funding on a much more permanent basis that could assure the completion of all projects under the program as it is currently structured. It would allow the commitment made by the Legislature to be preserved.

Second, the act of reporting this bill out of committee to the full House would be the first and most critical step this session in providing a chance to save the 1999 Program. Only your committee at this time has the opportunity to take that first step and it is the appropriate committee to do so. Without taking such action this program could sink into the current morass in which all other under funded programs currently find themselves with no specific solutions on the horizon.

Third, your action in reporting the bill to the full House would tell the rest of the Legislature that the House Transportation Committee wants the full House and the entire Legislature to address this critical issue of how to save this program in a responsible way.

If you will act to report this bill out to the full House, we pledge that the members of Economic Lifelines and all the communities awaiting projects across this state accept the collective responsibility of persuading the entire House and ultimately the Senate to enact such legislation to save the 1999 Comprehensive Transportation Program. We accept that burden and challenge and are prepared to fight for it with all our power and influence.

But today only your committee can give us that opportunity. On behalf of all of those awaiting the benefits of this program—jobs, highways, airports, public transit, railroads—please report HB 3026 out of this committee to the full House.

Thank you and I will stand for questions.



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RESOLUTION

A RESOLUTION OPPOSING REDUCTIONS IN FUNDING FOR THE 1999 COMPREHENSIVE TRANSPORTATION PROGRAM.

WHEREAS, The 1999 Kansas Legislature enacted a ten year Comprehensive Transportation Program authorizing expenditures for projects and programs in all modes;

WHEREAS, the Legislature approved a program including the following highway system program improvements over ten years;

- Routine and substantial maintenance;
- Construction and reconstruction, including major modifications and priority bridges;
- System enhancement projects - (\$1.05 billion);

WHEREAS, the Legislature approved increased assistance to local units of government over ten years including the following:

- an increase in the Special City and County Highway Fund;
- an increase in general local aid and in state aid for city connecting links maintenance from \$2000 to \$3000 per lane mile;
- new assistance for communities with railroad crossings not on the State Highway System;
- a program of credit enhancements for local units through the Kansas Transportation Revolving Fund;
- spending of at least \$3 million in each county for highway, bridge, and substantial maintenance projects over the ten years;

WHEREAS, the Legislature also approved funding for other modal elements over ten years including the following:

- a loan program for railroad rehabilitation projects;
- the Kansas Airport Improvement Program;
- an enhanced public transit program including expansion of transportation for elderly and disabled;

WHEREAS, the Legislature approved revenue enhancements including the following to help finance these program commitments:

- authority to issue \$995 million in twenty year bonds;
 - a gradual four cent increase in motor fuels taxes;
- a gradual increase in the sales tax demand transfers from the state general fund;

WHEREAS, communities throughout the state identified their transportation needs to the Governor's Transportation - 2000 Committee and to the Legislature as the basis for enactment of a program and the Legislature overwhelmingly enacted the ten year 1999 Comprehensive Transportation Program specifically to address as many of these identified transportation needs as possible and committed the necessary revenues to support such a program;

WHEREAS, pursuant to this program the Kansas Department of Transportation has already begun to identify projects in all modes which will be completed under this ten year program and is engaged in various stages of work on these projects;

AND WHEREAS, the Legislature must avoid reducing KDOT's funding in any individual year or on an overall basis to such a degree that it risks endangering the completion of projects and commitments due to the uncertainty of future occurrences over the life of the program;

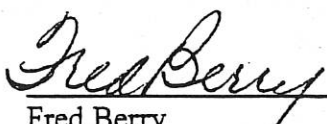
NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of Economic Lifelines:

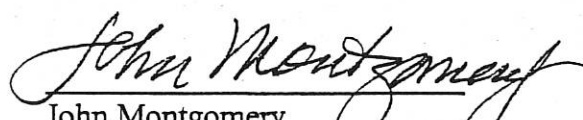
SECTION 1. That it does hereby reiterate its support for the implementation of the total 1999 Comprehensive Transportation Program and the completion of all projects and commitments thereunder and the full retention of all funding components necessary to do so;

SECTION 2. That it does hereby express its strongest possible opposition to any reduction of funding of the 1999 Comprehensive Transportation Program, either on a yearly or overall basis, which could result in the elimination, modification or failure to complete any project which would otherwise be done under the program as originally enacted by the Legislature, or which would reduce the level of funding committed to local units of government;

SECTION 3. That it does hereby direct that copies of this resolution be presented to the Governor, and each individual member of the Kansas Senate and the Kansas House of Representatives.

ADOPTED BY THE BOARD OF DIRECTORS OF ECONOMIC LIFELINES ON,
THIS 17TH DAY OF DECEMBER, 1999.


Fred Berry
Co-Chairman Economic Lifelines


John Montgomery
Co-Chairman Economic Lifelines

DON MOLER
League of Kansas Municipalities

RANDY ALLEN
Kansas Association of Counties

JIM DEHOFF
Kansas AFL-CIO

KEN BLACK
Kansas Association of Airports

RON BUTTS
Kansas Public Transit Association

DAN RAMLOW
Kansas Contractors Association

BILL FULLER
Kansas Farm Bureau

MIKE KELLY
Kansas Motor Carriers Association

ED DESOIGNIE
Heavy Constructors Association
of Greater Kansas City Area

JOHN FOWLER
Kansas Chamber of Commerce
and Industry

ANN CHARLES
JOBS, Inc.

TIM WITSMAN
Wichita Area Chamber of Commerce

JIM DAHMEN
Mid-America, Inc.

JON DAVELINE
Hutchinson/Reno Co. Chamber of Commerce

JIM JONES
Kansas Asphalt Paving Association

GEORGE BARBEE
Kansas Consulting Engineers

AL SILVERSTEIN
Great Bend Chamber of Commerce

MAX ZIMMERMAN
S.P.I.R.I.T. Group

CAROL MEYER
Garden City Area Chamber of Commerce

KEN JOHNSON
Kansas Aggregate Producers Association

GEORGE WELLS
Kansas Cement Council

CHRISTY CALDWELL
Topeka Chamber of Commerce

MARY BIRCH
Overland Park Chamber of Commerce

BUD BURKE
US 69 Highway Association of Kansas

MARY TURKINGTON
Topeka, Kansas

HOWARD LOOMIS
Pratt, Kansas

JOHN KOGER
Kansas Good Roads

ROY WESTHOFF
Kansas Ready Mixed Concrete Association



Affiliated with:

American Consulting Engineers Council
Kansas Society of Professional Engineers
National Society of Professional Engineers
Professional Engineers in Private Practice

Statement to
House Transportation Committee
HB 3026
Thursday, April 4, 2002

Mr. Chairman and members of the Committee, my name is George Barbee. I am appearing today as the Executive Director of the Kansas Consulting Engineers (KCE). The members of KCE employ in excess of 10,000 employees in Kansas to prepare the designs and specifications of public and private sector projects for: site development; water; sewer; buildings; and certainly for transportation.

Thank you for the opportunity to appear today to make a couple of points in support of HB 3026. You have suffered through hours of testimony regarding the funding of and the importance of keeping the current Comprehensive Transportation Program (CTP) intact.

First, we know now that the previous Kansas Highway Program (CHP) benefited Kansans in the creation of 117,000 jobs, which ranged from the positions of designer to construction workers. We know now that those employees were able to contribute to the economy in an economic downturn during the early part of the 1990's. We also know that our nation has experienced a recession in recent years, which may be over, but perhaps the recovery will be painfully slow. Let us not ignore the lesson learned in the previous highway program.

Second, the current CTP was never intended to solve all of our needs to rebuild and maintain the Kansas system of roads and highways that are only exceeded in miles by Texas, California, and Illinois. The CTP and the CHP programs only addressed the highest priority of needs expressed in the hours of input from the public and the factual day-to-day deterioration of our system.

The deterioration of our system is constant. Right now a vehicle is speeding over a crack that was caused by the freeze / thaw cycles of this winter. Right now, the pavement is flexing and making the problem worse. Leave it alone because we cannot afford to seal it and it will become a huge crack that leaks water into the roadbed. Leave it alone because you cannot afford to patch it and it becomes a pot hole. Leave it alone because you cannot afford to overlay this section and it becomes a section signed as Rough Road Ahead. Leave it alone and you have a highway system just like Missouri.

House Transportation Committee
April 4, 2002
Attachment 5

George Barbee, Executive Director

HB 3026
Page 2

So, what is the answer to providing economic strength to Kansans and to conclude the covenant made to Kansans in the Comprehensive Transportation Program? The answer is right here in HB 3026.

I urge you not only to have the courage to support this bill by voting to report it favorably, but also to become ambassadors in your political caucuses to support this transportation funding concept.

Thank you Mr. Chairman and I would be glad to stand for questions when appropriate.

KANSAS CEMENT COUNCIL

800 SW Jackson - #1408
Topeka, Kansas 66612
785-235-1188 Voice
785-235-2544 Fax

TESTIMONY

Date: April 4, 2002,
By: Woody Moses, Managing Director,
Kansas Cement Council
Regarding: HB 3026 – Securing the Comprehensive Transportation Program
Before: The House Committee on Transportation

Good afternoon Mr. Chairman and Members of the Committee:

My name is Edward R. (Woody) Moses, representing the Kansas Cement Council. We thank you for the opportunity to provide our comments in support of House Bill No. 3026.

The Kansas Cement Council is a coalition comprised of the Ash Grove Cement Co., Heartland Cement Co., Lafarge North America and the Monarch Cement Co. all of whom operate cement manufacturing plants in Southeast Kansas. In addition to that the Lone Star Cement Company, and Holcim Cement maintain terminals and market in Kansas. Together these entities provide over 700 jobs in Kansas and maintain a capital investment of over \$700 million in this state. And, due to the existence of the Comprehensive Transportation Program (CTP) we have maintained and even increased our employment in recent months, unlike many other sectors of the Kansas economy.

In 1999 the Kansas Legislature overwhelmingly adopted the Comprehensive Transportation Program and in doing so embarked on what could be referred to as the state's largest economic development program. In recent months it has become clear that the ability of the CTP to provide safe and efficient transportation as well as economic development is endangered. It is clear to many unless this legislature takes action to secure the financing of the CTP the completion of the program, as promised to Kansas citizens in 1999, will not occur. For this simple reason alone we urge this committee to recommend HB 3026 favorably. While HB3026 may not be the perfect measure it is needed in order to start the process of securing the future of the program. Once again, thank you for the opportunity to provide these comments. I will be happy to respond to any questions you may have at this time.

House Transportation Committee
April 4, 2002
Attachment 6

KRMCA

Kansas Ready Mixed
Concrete Association

Edward R. Moses
Managing Director

TESTIMONY

BEFORE: The House Committee on Transportation

FROM: Edward R. Moses, Managing Director

DATE: April 4, 2002

REGARDING: HB 3026 – Securing the Comprehensive Transportation Program

Good afternoon, Mr. Chairman and members of the committee, my name is Edward R. Moses, Managing Director of the Kansas Ready Mixed Concrete Association. The Kansas Ready Mixed Concrete Association (KRMCA) is an industry-wide trade association comprised of over two hundred fifty (250) members located in all one hundred and sixty five (165) legislative districts in this state, providing basic building materials to all Kansans. Primarily engaged in the manufacture and placement of ready mixed concrete.

In 1999 the Kansas Legislature overwhelmingly adopted the Comprehensive Transportation Program (CTP) and in doing so embarked on what could be referred to as the state's largest economic development program. In recent months it has become clear that the ability of the CTP to provide safe and efficient transportation as well as economic development is endangered. As you know, all the major modification, priority bridge (the Red Map), and system enhancement projects in the highway segment of the CTP have been announced for the full ten-years of the program and communities across the state expect those projects to be completed. Additionally, the same expectation exists for those projects in the other modes of the program (airports, public transit, and railroads).

While we recognize the State is currently suffering serious revenue shortfalls, we would remind this committee that studies evaluating the prior 1989 eight-year Comprehensive Highway Program (CHP) concluded that that program had a significant positive impact on the States economy during equally difficult times. And, anecdotally, our current industry employment levels indicate the 1999 CTP is having the same effect. Successful completion of 1999 Comprehensive Transportation Program will have the same positive impact on the Kansas economy.

It is clear to many unless this legislature takes action to secure the financing of the CTP the completion of the program, as promised to Kansas citizens in 1999, will not occur. For this simple reason alone we urge this committee to recommend HB 3026 favorably. While HB3026 may not be the perfect measure it is needed in order to start the process of securing the future of the program.

Once again, thank you for the opportunity to provide these comments. I will be happy to respond to any questions you may have at this time.

House Transportation Committee
April 4, 2002
Attachment 7



Kansas Aggregate
Producers' Association

Edward R. Moses
Managing Director

TESTIMONY

BEFORE: The House Committee on Transportation
FROM: Edward R. Moses, Managing Director
DATE: April 4, 2002
REGARDING: HB 3026 – Securing the Comprehensive Transportation Program

Good afternoon, Mr. Chairman and members of the committee, my name is Edward R. Moses, Managing Director of the Kansas Ready Mixed Concrete Association. The Kansas Aggregate Producers Association (KAPA) is an industry-wide trade association comprised of over two hundred fifty (250) members located in all one hundred and sixty five (165) legislative districts in this state, providing basic building materials to all Kansans. Primarily engaged in the manufacture and provision of rock, sand & gravel products in the state of Kansas.

In 1999 the Kansas Legislature overwhelmingly adopted the Comprehensive Transportation Program (CTP) and in doing so embarked on what could be referred to as the state's largest economic development program. In recent months it has become clear that the ability of the CTP to provide safe and efficient transportation as well as economic development is endangered. As you know, all the major modification, priority bridge (the Red Map), and system enhancement projects in the highway segment of the CTP have been announced for the full ten-years of the program and communities across the state expect those projects to be completed. Additionally, the same expectation exists for those projects in the other modes of the program (airports, public transit, and railroads).

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House Transportation Committee
April 4, 2002
Attachment 8



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Jerry Lewis
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Pam Pearson
Emil Ramirez
Bruce Reves
Steve Rooney
Debbie Snow
Betty Vines
Dan Woodard*

House Transportation Committee
Representative Gary Hayzlett, Chairman
Thursday April 4, 2002

Chairman Hayzlett and Committee Members,

I am Jim DeHoff, Executive Secretary of the Kansas AFL CIO. I appear before you today in support of HB 3026.

For many years, the Kansas AFL CIO has supported economic development in the State of Kansas, because it provides Kansas residents with jobs and provides a stable tax base for Kansas communities. Without question, two of the most beneficial economic programs ever passed by the Kansas legislature are the 1989 Transportation Plan and the Transportation 2000 Plan passed in 1999. These two transportation plans have provided thousands of jobs to workers and their families.

Contractors, vendors and suppliers from all over the State of Kansas have had a solid business base, thereby benefiting most communities in Kansas. Our roadways and bridges are being built and maintained to insure the safety of Kansas residents. By meeting the roadway needs of our communities, Kansas is leading the way with infrastructure to attract new businesses to our state.

In 1998 I served as a committee member of Governor Grave's Transportation 2000 Committee. This committee traveled the state of Kansas to hold hearings on transportation needs. The main thing the committee heard in these hearings was the need for good roadways, airports, service transportation and help for short line railroads, to attract business. There was strong commitment for a comprehensive transportation plan.

The Kansas Legislature made a commitment to address these requests by Kansas citizens. We have several more years to complete this commitment. The revenue combinations in HB 3026 would assure funding so the Transportation Plan can continue until 2009. Without additional funding the program will be drastically scaled back. This will result in the reduction of jobs and economic opportunities for Kansans.

We urge you to support passage of HB 3026.



House Transportation Committee
April 4, 2002
Attachment 9



LEGISLATIVE TESTIMONY



The Unified Voice of Business

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HB 3026

April 4, 2002

KANSAS CHAMBER OF COMMERCE AND INDUSTRY

Testimony Before the
House Transportation Committee

by

Marlee Carpenter
KCCI Director of Transportation

Dear Mr. Chair and members of the Committee:

I am Marlee Carpenter and I am here on behalf of the Kansas Chamber of Commerce and Industry. We are here in support of HB 3026 and transportation funding.

KCCI has a well-established history of supporting transportation funding and transportation programs in the State of Kansas. We were vocal supporters when the 1999 Comprehensive Transportation Program was passed. The Kansas business community believes that good roads are vital to business development and growth. To that end, we are supportive of additional

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 2,000 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 48% of KCCI's members having less than 25 employees, and 78% 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.

House Transportation Committee

April 4, 2002

Attachment 10

revenue so that the 1999 Comprehensive Transportation Program is fully funded and construction promised will be completed.

KCCI's Executive Committee has adopted a funding strategy that is both flexible and reflective of our members' views and beliefs. First and foremost, we support transportation dollars secure and dedicated to the program, so that this year is unique in revisiting the transportation funding formula. KCCI supports locking in the sales tax transfer, through statute, at the highest level possible.

When the 1999 program was passed, Kansas citizens pledged to pay additional fuel taxes in exchange for increased sales tax transfers. We understand the fiscal situation of the state and know that the entire sales tax transfer may not be possible. However, Kansans have paid increased fuel taxes and believe that the legislature should follow through with most or part of its commitment.

KCCI also supports modest increases in the motor fuel tax and registration fees. These increases should be held at the lowest level possible, to balance transportation funding concerns with the business concerns of the transportation industry.

Finally, if sales tax increases are called for and approved by the legislature for transportation funding, KCCI advocates for its full dedication to the transportation program. Again, this is to secure transportation funding for the life of the 1999 Comprehensive Transportation Program.

KCCI understands the tough decisions still yet to be made this session and encourages a balanced and reasoned approach to these issues. Thank you for your time and I will be happy to answer any questions.



April 4, 2002

TO: Members of the House Transportation Committee

Re: HB 3026

The Missouri/Kansas Chapter, American Concrete Pavement Association is an industry-wide trade association comprised of concrete paving contractors, material and equipment suppliers. The concrete industry provides a vital role in the Kansas economy with our members employing over 2,500 citizens of this state with an annual payroll exceeding \$75 million dollars, with an additional \$75 million spent on capital improvements annually. This includes 7 contractors, 4 major cement manufacturers and over 100 family-owned ready-mix operations throughout the state all working for the common interest of seeing Kansas maintain the best possible transportation system.

Today, April 4, you will be considering HB 3026, a measure designed to secure successful completion of the Comprehensive Transportation Program (CTP). Based on the success of the previous eight-year CHP, the promise of the 1999 CTP, and the positive affect it will have on the Kansas economy, **we sincerely urge you to report this bill favorable for passage.**

Our industry is proud of the fact that Kansas currently ranks 4th from the top in overall pavement condition nationally and we believe it is imperative that the state have funding to continue to provide it's citizens with a safe and modern highway system in the future.

Thank you very much for your favorable consideration of HB 3026, an important bill not only for the road-building industry, but also for all of the citizens of Kansas.

Sincerely yours,

Matthew W. Ross, P.E.
Executive Director

House Transportation Committee
April 4, 2002
Attachment 11



KANSAS MOTOR CARRIERS ASSOCIATION

P.O. Box 1673 ■ Topeka, Kansas 66601-1673 ■ 2900 S. Topeka Blvd. ■ Topeka, Kansas 66611-2121
Telephone: (785) 267-1641 ■ FAX: (785) 266-6551 ■ www.kmca.org

Trucking Solutions Since 1936

Legislative Testimony by the Kansas Motor Carriers Association

Commenting on House Bill No. 3026

Presented before the House Transportation Committee
Representative Gary Hayzlett, Chairman
Thursday April 4, 2002 Statehouse, Topeka, Kansas

KEN LEICHT
Frito-Lay Service & Distribution
President

JOHN LATHROP
Roadway Express
Chairman of the Board

GLENN UNREIN
Golden Plains Trucking, Inc.
First Vice President

TONY GASTON
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JEFF ROBERTSON
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Arensdorf Trucking, Inc.
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MIKE ROSS
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KELLY KILE
Wal-Mart Stores, Inc.
Public Relations Chairman

MEL GRAVES
S&G Associates, Inc.
Allied Industries Chairman

TOM WHITAKER
Executive Director

Mr. Chairman and Members of the House Transportation Committee:

I am Tom Whitaker, executive director of the Kansas Motor Carriers Association. I appear before you this afternoon representing our 1,400 member firms and the Kansas trucking and highway transportation industry.

The Kansas Motor Carriers Association would like to publicly thank the members of the House Select Committee on the Transportation Budget for their concern of the economic condition of the Kansas trucking industry as they deliberated on methods to keep the 1999 Comprehensive Transportation Plan intact. KMCA, continues to support the 1999 CTP, however, the trucking industry simply cannot afford an increase in taxes at this time.

HB 3026 increases the tax on all motor fuels (including diesel) by \$.02 per gallon, effective June 1, 2002. There is already a \$.01 increase scheduled to take effect on July 1, 2003. In addition, the bill increases motor vehicle registration fees by 3%. The registration fee increase provision becomes effective on July 1, 2002, instead of the normal start of the registration year on January 1. Also, HB 3026 would raise the statewide sales tax by .25%.

Truckers in Kansas currently pay substantial state and federal taxes. A 2001 Peterbilt truck tractor and semi-trailer pays a \$.23 (\$.02 more than gasoline) per gallon state diesel tax and a \$.244 (\$.06 more than gasoline) per gallon federal diesel tax. The registration fee for an 80,000 lb. truck tractor and semi-trailer is \$1,760. Additionally, this combination vehicle will pay a \$550 federal heavy vehicle use tax; a federal excise tax which is 12% on the retail value of the vehicle and approximately \$3,745 in property taxes. Trucks did not receive any benefits from the Legislature's reduction of vehicle property taxes on automobiles and pickup trucks.

House Transportation Committee
April 4, 2002
Attachment 12

Based on current state fuel tax, registration fees, property tax and other third-structure taxes, Kansas ranks third in the nation in amount of total state truck taxes. (See attached ranking).

Here are five examples of what HB 3026 will cost the industry:

- A livestock hauler from Salina with eight trucks operating 87.4% of their miles in Kansas will pay an additional \$2711.50 in Kansas fuel taxes and registration fees, or \$338.93 per truck per year.
- A livestock hauler from Hays with 28 trucks operating 67% of their miles in Kansas will pay an additional \$11,749.18 in Kansas fuel taxes and registration fees, or \$419.61 per truck per year.
- A truckload carrier from Hutchinson with 45 trucks operating 24.8% of their miles in Kansas will pay an additional \$7,094.42 in Kansas fuel taxes and registration fees, or \$157.65 per truck per year.
- A truckload carrier from Medicine Lodge with 44 trucks operating 34% of their miles in Kansas will pay an additional \$9,404.60 in Kansas fuel taxes and registration fees, or \$213.72 per truck per year.
- A truckload carrier from Kansas City with 28 trucks operating 53% of their miles in Kansas will pay an additional \$6,201.54 in Kansas fuel taxes and registration fees, or \$221.48 per truck per year.

The American Trucking Associations recently reported that the industry average operating ratio increased in 2000 to 99.66 from the previously reported 1999 figure of 98.0. Based on the 2000-operating ratio, in order to pay the average \$332.77 per truck increase as proposed in HB 3026, that one truck would have to produce \$97,873.53 revenue.

Trucking business failures are at all-time high. The attached graph illustrates the plight of our industry. While fuel prices have dropped, insurance costs have increased dramatically. The American Trucking Associations and its 50 state affiliates, including Kansas, participated in a study of truck insurance rates that included 1,000 motor carriers. The study indicates that during 2001, primary truck insurance premiums increased 32%, on average, which is significantly higher than that registered in 2000. For those carriers that renewed after Sept. 11, 2001, the average premium increase was 37%. Umbrella insurance premiums jumped 87% in 2001. And for those renewing umbrella coverage after Sept. 11, 2001, the average increase was 120% with some carriers reporting more than a 1000% increase.

We all hope the economy will strengthen in the near future. Hopefully costs will come down and freight volumes will increase, but today, this is just wishful thinking. Mr. Chairman, the Kansas trucking industry is struggling mightily to make it through these tough economic times, we ask that this committee use caution when considering additional taxes on the Kansas trucking industry

Thank you for the opportunity to appear before you today. I would be pleased to respond to any questions you may have.

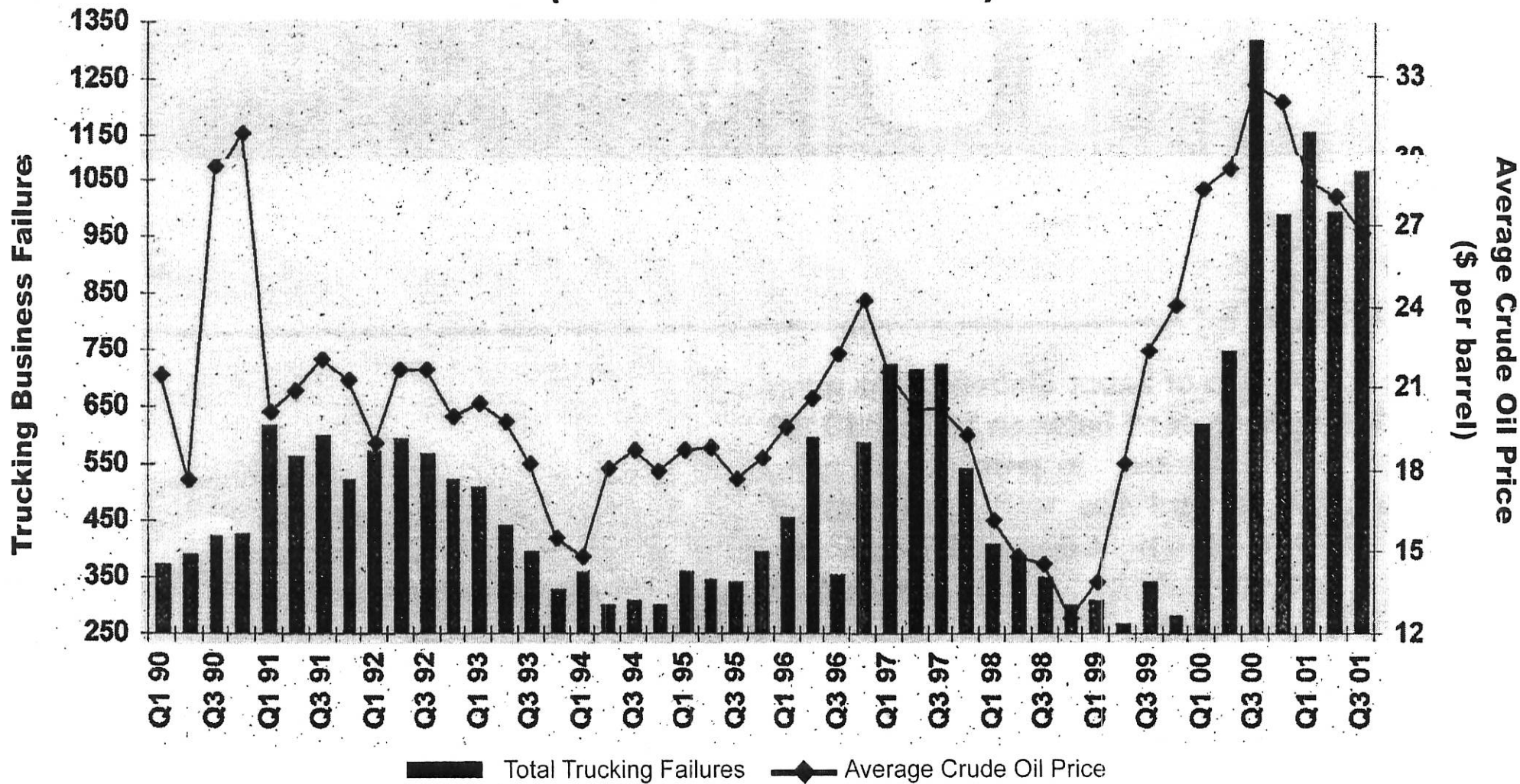
States Ranking for Total Truck Taxes

<u>State</u>	<u>Regis. fees</u>	<u>Fuel tax rate</u>	<u>Fuel tax on 14,035 Gal.</u>	<u>Ad-Valorem tax</u>	<u>Other taxes</u>	<u>Total</u>
OR	320	0	0	0	9576	9896
NY	968	0.2985	4189	0	3960	9117.2985
KS	1760	0.23	3228	3745		8733.23
AZ	3631	0.26	3649			7280.26
CA	1618	0.271	3803	1600		7021.271
IL	2790	0.296	4154	0		6944.296
WA	1608	0.23	3228	2044		6880.23
ID	3360	0.25	3509	0		6869.25
CO	1772.5	0.205	2877	2100		6749.705
CT	1520	0.18	2526	2435		6481.18
MA	1215	0.21	2947	2250		6412.21
WI	1967.5	0.303	4253	0		6220.803
KY	1260	0.12	1684	926	2280	6150.12
NV	1360	0.27	3789	952		6101.27
ME	877	0.23	3228	1920		6025.23
WV	1131.25	0.2565	3600	1163		5894.5065
PA	1507.5	0.309	4337	0		5844.809
VA	1368	0.16	2246	2153		5767.16
UT	666	0.245	3439	1360		5465.245
VT	1775.58	0.26	3649	0		5424.84
IN	1350	0.16	2246	1800		5396.16
MT	750	0.2775	3895	750		5395.2775
NC	963	0.241	3382	1042		5387.241
MO	1729	0.17	2386	1180		5295.17
AR	1350	0.225	3158	768		5276.225
NM	129.5	0.18	2526	0	2534	5189.68
NH	736	0.18	2526	1800		5062.18
WY	1400	0.14	1965	1620		4985.14
RI	1044	0.28	3930	0		4974.28
FL	970	0.2797	3926	0		4896.2797
IA	1695	0.225	3158	0		4853.225
NE	1280	0.245	3439	0		4719.245
SD	1457	0.22	3088	0		4545.22
OH	1340	0.22	3088	0		4428.22
MN	1595	0.2	2807	0		4402.2
DE	1280	0.22	3088	0		4368.22
MD	940	0.2425	3403	0		4343.2425
TN	1366	0.17	2386	577		4329.17
SC	800	0.16	2246	1088		4134.16
MS	1512	0.18	2526	0		4038.18
ND	1045	0.21	2947	0		3992.21
AL	845	0.17	2386	674		3905.17
TX	840	0.2	2807	0		3647.2
NJ	1087	0.175	2456	0		3543.175
GA	725	0.1108	1555	1239		3519.1108
LA	504	0.2	2807	0		3311.2
MI	1660	0.09	1263	0		2923.09
OK	948	0.13	1825	0		2773.13
HI	440	0.16	2246	0		2686.16
AK	221	0.08	1123	0		1344.08

Registration fees provided by International Registration Plan database
 Fuel taxes provided by International Fuel Tax Agreement
 Ad-Valorem taxes provided by American Trucking Associations
 Information provided by Kansas Motor Carriers Association

Total Trucking Business Failures vs. Average Crude Oil Prices (Q1 1990 - Q3 2001)

12-4



Trucking business failures rose in the third quarter of 2001 to 1,065. This was a 7.6% increase from 990 failures during the second quarter of 2001. Average crude oil prices fell 4.7% in the third quarter of 2001 from the previous quarter, going from \$28.02 per barrel to \$26.69.

**Presented by Kansas Motor Carriers Association
February 2002**



April 4, 2002

House Transportation Committee

Chairman Hayzlett and Members of the Committee:

I am Terry Presta, President of Presta Oil Inc. Today I am appearing before you as the Legislative Chairman of the Petroleum Marketers and Convenience Store Association of Kansas (PMCA) in opposition to HB 3026.

Early in my business career, I had a banker who warned me about a curious state in the human condition. He said that when times are good, businessmen have a tendency to think they will always be good, and conversely when they are bad, they tend to think they will always be bad. I thought of this when I heard in these halls, that as weak as revenues have been this year, they can only get worse next year without a tax increase. I disagree. A year ago natural gas prices reached highs not seen before, and gasoline prices spiked soon thereafter. Every recession since WWII has been preceded with a spike in energy costs and last year was no different. Then came the attacks of 9-11 and the economy tanked. Revenue estimates were revised down. Certainly concern over this situation is understandable.

However, this year, it is natural gas prices that have tanked, gasoline prices are relatively low, and interest rates are at 40 year lows. State revenues, which are a trailing indicator of the economy, continue to slump, but it is only a matter of time until they rebound. So, in my opinion, the question is how to bridge the short-term gap in revenues until the economy recovers.

The main tax collection revenue shortfalls are coming from sales tax, corporate and individual income tax receipts. That means that both business and many individual taxpayers are hurting. Their disposable income has obviously been diminished by the recession and they have had to cut back. In the face of this, comes a bill that would raise taxes 2 cents per gallon on one of the very items that got us into this situation that today we find ourselves in. It also would further exacerbate the border disparity along the Kansas/Missouri border, which is now at 4/5 cents per gallon. It is very puzzling to those of us who market in this area that anyone would even propose the widening of this gap. Statistics indicate that last year the total consumption of gasoline in the State of Kansas was down for the first time in recent memory. I contend that this Kansas/Missouri disparity is one of the major contributing factors.

I argue today that it is extremely shortsighted to raise the gasoline tax forever in the face of a short-term shortfall in State revenues. Our membership stands firmly against the gasoline tax proposed by this bill. Thank you.

Petroleum Marketers and Convenience Store Association of Kansas

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House Transportation Committee

April 4, 2002

Attachment 13