

2010

ECONOMIC AND SOCIAL IMPACT STUDY



University of Central Missouri
Warrensburg, MO

ACKNOWLEDGMENTS

This report was created by Bob Adebayo, PhD, Director of Institutional Research at the University of Central Missouri in Warrensburg, Missouri. The report benefited greatly from the data and background information provided by the staff of the Missouri Safety Center. The project was conducted under the direction of Terry Butler, Director of the Missouri Safety Center.

All findings presented in this report are solely those of the authors and do not necessarily represent the opinions or position of those who provided data or information for this project.

TABLE OF CONTENTS (TOC): _____

<u>EXECUTIVE SUMMARY</u>	1-2
1. INTRODUCTION	3
1.1 Purpose of this Report	3
1.2 Overview of the Missouri Safety Center	3
1.3 History of the Missouri Safety Center	3
1.4 Goals of the Missouri Safety Center.....	4
2. <u>METHODOLOGY</u>	5
2.1 Analysis	5
3. <u>ECONOMIC REVIEW</u>	5
3.1 Funding Sources.....	5
3.2 Expenses	6
3.3 Employment.....	6
4. <u>PRIMARY ACTIVITIES OF THE MISSOURI SAFETY CENTER</u>	7
4.1 Law Enforcement Training and Traffic Safety Related Services.....	7
4.2 Public Service.....	7
4.3 Research Activities	8
4.4 HSD/MoDOT Grant Activity	8
4.5 Conferences	9
4.6 Local Training.....	9
4.7 Missouri Legislative Support and Activity	9-10
5. <u>ECONOMIC IMPACT ANALYSIS OF THE MISSOURI SAFETY CENTER</u>	10
5.1 Data Sources	11

6. COMPONENTS OF ECONOMIC IMPACT	11
6.1 Direct Spending by Missouri Safety Center	11
6.2 Employee Spending.....	11
6.3 Visitor and Guest Spending	11
7. METHODOLOGY	12
7.1 Local Economic Impact of the Missouri Safety Center in FY 2010	12
7.2 State-wide Economic Impact.....	12
7.3 Social Impact Analysis of the Missouri Safety Center	13-14
8. SUMMARY AND CONCLUSIONS	14
APPENDIX A (NCST Economic Impact Report)	15-18
BIBLIOGRAPHY	19

Executive Summary: The Economic and Social Impact of the Missouri Safety Center

The Missouri Safety Center (Center) is widely recognized as a leader in transportation safety and an important contributor to health and welfare of the citizens of Missouri. This study provides an estimation of the short-term social and economic impact of the Center on the local and state economy.

Fiscal year 2010 (FY 2010) highlights include:

The direct operations activities of the Missouri Safety Center generate significant spending and employment.

- The Center injected more than \$4 million into the local and state economy.
- The Center had a general operating expenditure total of \$3,187,316 million. The Center's expenditures and those of its employees and visitors have a multiplier effect in terms of increased profits, employment and additional tax revenues that benefit both local and state economies.
- The Center employs more than 100 full and part-time employees. Those employees earned \$924,927 in compensation and had an impact of almost \$2 million on the local economy.

Spending by out-of-town visitors to the Missouri Safety Center also generates additional economic activity that benefits both local and state economies.

- Visitors' expenditures had a total local economic impact of \$150,000 as it ripples through the local economy.
- Visitors and conference participants in safety events and other special activities hosted by the Center injected an estimated \$1.5 million into the local economy.
- The actual economic impact of the Center on the local economy amounted to almost \$4 million.

The return on investments made to the Center far outweighs the costs, particularly when social benefits and savings are included in the assessment.

- The Center's economic return on investment is more than \$2 for each dollar received from the Missouri Department of Transportation (MoDOT) and more than \$10 for each dollar received from the University of Central Missouri. Returns far outweigh the costs particularly when social savings are included in the assessment.

[Return to TOC](#)

- The Center provides a variety of training opportunities and services to University of Central Missouri (UCM) employees as a public service, saving UCM approximately \$5,000 annually.
- Social benefits are even more remarkable. The Center provides other intangible effects on the local and state economy through its training and services, which have benefited more than 400,000 people over the past decade.
- The Center enhances the quality of life of the local and regional communities by implementing public safety programs designed to reduce the number of fatalities, injuries, and losses resulting from traffic crashes on Missouri roadways.
- Many of the professional activities organized and hosted by the Center add to UCM's academic reputation as well as attracting scholars and professionals to campus from around the country and the world.

1 INTRODUCTION

1.1 Purpose of this Report

As a recognized leader in transportation safety, the Center is a significant social and economic “asset” of UCM, Warrensburg and Missouri. While few would disagree that the Center is an important component of UCM’s unique educational environment, and that it contributes to the quality of life and the economic health of the public, the magnitude of its contributions to the University, city, and state economies is not widely known. This takes on heightened importance as the Center undertakes new projects that promise to update and expand the Center’s and University’s unique standing in education and public service.

The goal of this report is to quantify and clarify the role the Center plays in UCM’s, Warrensburg’s and Missouri’s economies. In addition, this analysis will demonstrate the importance of the Center to the stability of the local and regional economies. As UCM strives to help meet Missouri’s need for a highly trained workforce in the coming decades, the Center can and should play a key role through training, certification programs and public service initiatives.

This report provides a reasonable and conservative estimate of the economic impact of the Center on the local and state economy in fiscal year 2010. The long term social impacts of the activities of the Center on the citizens of Missouri cannot be measured in dollars alone. The Center significantly impacts the lives of the citizens of Missouri through many of the public safety programs it provides.

1.2 Overview of the Missouri Safety Center

The Missouri Safety Center at the University of Central Missouri is the leading transportation and safety research agency in Missouri. The Center is an organization, dedicated to injury prevention specifically in the area of highway and traffic safety utilizing a staff of specialists. The Center’s activities include programs of instruction, research, publications and public service activities, as well as conferences and other special services. The mission of the Center is to promote safety in Missouri and the nation. The Center is supported by the University of Central Missouri’s administration, the state legislature and a wide variety of clientele from business, industry, government entities and the public-at-large. In addition to providing broad-based safety education and training, the Center is one of the major contributors to the social and economic development of the local and state economy.

1.3 History of the Missouri Safety Center

The Missouri Safety Center was established July 1, 1967, by the Commission on Higher Education in partnership with the Governor’s Traffic Safety Coordinating Committee. Through instruction, research, publications, and public service activities the Center is devoted to injury prevention specifically in the area of highway and traffic safety. Over the years, the Center has worked extensively with every county in Missouri, as well as many U.S. states and many foreign countries in traffic and

[Return to TOC](#)

transportation safety, public and general safety. Through partnerships with State agencies like the Highway Safety Division (HSD) of the Missouri Department of Transportation (MoDOT), the Missouri Department of Revenue (DOR) and the Missouri State Highway Patrol (MSHP), the Center manages several state programs including; Breath Alcohol Instrument Training and Testing Lab, Driver Improvement, Ignition Interlock Monitoring, Missouri Motorcycle Safety and Standard Field Sobriety Testing and Training Coordination.

Since its inception, the Center has enjoyed a beneficial partnership with Missouri's law enforcement community, providing a variety of training programs and other traffic safety related services. Examples of these include; breath alcohol instrument training, standard field sobriety testing, sobriety checkpoint supervisor training, crash investigation and reconstruction, police driving techniques and law enforcement traffic systems software training. The Center is an approved provider for the Missouri Department of Public Safety's, Peace Officer Standards and Training (P.O.S.T.) program.

1.4 **Goals of the Missouri Safety Center**

The Center is a government agency dedicated to injury prevention specifically in highway and traffic safety. It draws together state and local agencies, business and industry, safety professionals, University personnel and the public-at-large in efforts to reduce deaths and injuries on Missouri's highways.

Listed below are some of the stated goals of the Center:

- Coordinate with Missouri's state and local agencies, professional organizations and business and industry professionals to meet their safety, training and awareness needs, as well as other public safety issues.
- Expand the number of safety programs offered and the diversity of target populations served to meet changing safety needs and to remain in the forefront of safety technologies.
- Encourage Center staff to maintain close working relationships with safety professionals, as well as safety organizations and agencies to develop more responsive and timely safety programming.
- Promote interdisciplinary activities with other UCM faculty, staff, and students in grant and research activities, safety training programs, and other cooperative initiatives.
- Promote partnerships with federal, state, and local agencies, safety advocate groups, civic organizations, business and industry, and other professional organizations.

- Investigate the multiple causes of accidents and injuries and develop a wide range of preventive countermeasures and training programs designed to reduce the number of traffic crashes, injuries and fatalities.

2 METHODOLOGY

2.1 Analysis

This analysis provides a reasonable and conservative estimate of the economic impacts of the Missouri Safety Center in fiscal year 2010 based on the following assumptions:

1. Not all Center spending results in local income, e.g., equipment, journals, books, contracts, etc. It is estimated that 85 percent of Center spending actually results in local income. A “leakage” of 15 percent is used in calculating an overall economic impact. A leakage identifies the proportion of direct expenditures that leave the local area and have no further effect within the local area.
2. Visitors’ and guests’ daily spending of \$100.00 each is based on estimates used in recent studies. It is estimated that approximately 750 individuals participated in various activities hosted by the Center in fiscal year 2010.
3. The study uses a relatively conservative multiplier of two (2). Similar studies in recent years have employed multipliers ranging from 1.58 to 2.34.

3 ECONOMIC REVIEW

3.1 Funding Sources

As Table 1 indicates, the Center’s primary fiscal 2010 grant funding source was the Highway Safety Division of the Missouri Department of Transportation. Using federal flow-through dollars, the HSD funded \$2,083,332 (including indirect cost recovery) in grants, or 65 percent of the Center’s income. Other primary sources of income include the Missouri Motorcycle Safety Program (MMSP) Trust Fund of \$425,000 and the University of Central Missouri’s general appropriation of \$280,750.

Missouri Safety Center FY 2010 Funding Sources	
Source	Amount
HSD/MoDOT	\$1,893,879
MMSP Trust Fund	\$ 425,000
UCM Gen. Appropriations	\$ 280,750
Contracts	\$ 269,611
Grant Indirect Cost Recovery	\$ 189,453
Fee-Based Programming	\$ 114,922
Total	\$3,173,615

Table 1

3.2 Expenses

Table 2 represents the Center's overall expenses, including grants, for fiscal year 2010. The Center's general operational expenses were \$1,070,815. Salary, wages and benefits expenses were \$924,927, while the Center spent \$133,122 on travel expenses.

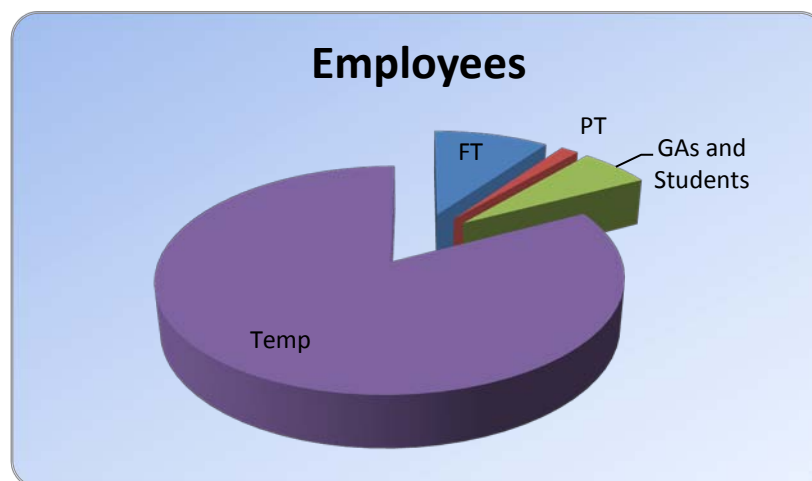
Missouri Safety Center Expense	FY 2010 Operating Expenses Amount
General Operations	\$1,070,815
Salary, Wages and Benefits	\$ 924,927
Travel	\$ 133,122
Total	\$2,128,864

Table 2

3.3 Employment

Without question, the Center's most important asset is its staff. The Center employed more than 120 employees in fiscal year 2010.

- **13 full-time (FT)** professional and support staff in Warrensburg
 - 3.34 FTEs paid from UCM appropriations
 - 9.66 FTEs paid from grants/contracts, trust fund or fee-based
- **2 part-time (PT)** professional staff in Warrensburg
 - Both .5 FTEs paid from grants
- **3 Graduate Assistants** and up to **5 student workers** in Warrensburg
 - 2.75 GAs paid from UCM appropriations
 - .25 GAs and all student workers paid from grants/contracts, trust fund or fee-based
- **110 Temporary (Temp)** employees throughout the State
 - All paid from grants/contracts, trust fund or fee-based



[Return to TOC](#)

4 PRIMARY ACTIVITIES OF THE MISSOURI SAFETY CENTER _____

Through participation in a broad range of scholarly activities in transportation, highway safety and research, the Missouri Safety Center has heightened the international profile of Warrensburg, the University of Central Missouri and the state of Missouri.

Many examples of the Center's major activities are described below.

4.1 Law Enforcement Training and Traffic Safety Related Services _____

In partnership with the Highway Safety Division of the Missouri Department of Transportation, the Center provided the following law enforcement training programs and traffic safety related services:

- Breath Alcohol Instrument Training and Testing Lab
- Sobriety Checkpoint Supervisor Training
- Crash Investigation and Reconstruction
- Police Driving
- Law Enforcement Traffic Systems Software Training (LETS)
- Standard Field Sobriety Testing (SFST)
- Driver Improvement Program
- Ignition Interlock Device Monitoring Program
- Missouri Motorcycle Safety Program
- Standard Field Sobriety Testing State Coordinator

4.2 Public Service _____

In addition, the Center offers a variety of services and training programs to Missouri's educational institutions as well as business, industry, military installations and the general public. Center staff are often called to provide expert testimony in the areas of traffic and transportation safety for the Missouri House and Senate, as well as state, county and city agencies. The Center promotes partnerships with federal, state, and local agencies, safety advocate groups, civic organizations, business and industry, and other professional organizations. Additional instructional activities include hands-on driving programs, crash investigation/reconstruction, state seatbelt observational surveys, driver education teacher preparation, school bus driver training, and the hosting of a variety of state conferences. Other safety training and services provided to the public on gratis in 2010 include:

- Forklift Training for UCM employees
- UCM Passenger Van On-line Training
- CDL Test Preparation Training
- Host of the 2010 High-Mileage Challenge Event in cooperation with the Department of Career and Technology Education
- Host of the 55-Alive training course
- Host of the ARIDE courses for Missouri Office of Prosecutorial Services

[Return to TOC](#)

- Conducted Drug Recognition Expert (DRE) evaluations for local law enforcement

4.3 Research Activities

The Missouri Safety Center has an impact that extends well beyond economic measures. Research and development activities of the Center play critical roles in improving the quality of life of Missouri residents. What follows are just a few examples of research initiatives undertaken by the Center in fiscal year 2010.

- The Center conducted a ground-breaking study to investigate the chemical and psycho-physical impairment properties of the synthetic cannabinoid commonly referred to as K-2 or Spice (*the only study of its kind to incorporate human-subject dosing*). Test subjects were dosed (via smoking a water bong) and then blood, breath and urine samples were taken to evaluate the chemical makeup of the dosing compounds, as well as the psycho-physical impairments present in the dosed subjects. A final report is pending.
- The HawkEye video system was evaluated during a Center research study from February 2009 to July 2010. Five drinking sessions were conducted with a total of 29 drinking subjects. All of the information received and evaluated from this study has been placed into a report waiting final publication.
- A combined study from two grants: Highway Safety Division – Missouri Department of Transportation and Dunlop and Associates. The study targeted Seatbelt usage rates in 10 southern “rural” counties in Missouri. The observational study was conducted at 40 sites within 10 counties resulting in a total 7,770 observation and a 66.4% usage rate.
- Draeger 5000 saliva drug screening instrumentation was evaluated during a Center research study in cooperation with the Department of Health and Senior Services (DOHSS) and several law enforcement agencies across the state of Missouri. During the study, 139 individuals were tested and the results forwarded to DOHSS for comparative analysis. A final report is pending.

4.4 HSD/MoDOT Grant Activity

In keeping with its role as a focal point for transportation and safety research in the state of Missouri, the Center completed the following grant-based programs in fiscal year 2010:

- Breath Alcohol Lab Operations
- Driver Improvement Programs Oversight
- Click-it or Ticket Enforcement Campaigns
- Click-it or Ticket/CPS Enforcement Campaigns
- Commercial Vehicle Seat Belt Survey
- Ignition Interlocking Monitoring
- Law Enforcement Traffic Systems Software Training
- Rural Seatbelt Project Enforcement Campaigns

[Return to TOC](#)

- Standard Field Sobriety Testing Coordination
- Sobriety Checkpoint Supervisor Training
- Statewide Seatbelt Surveys
- Occupant Protection – Youth Enforcement Campaigns
- Advanced Electric Vehicle Training (yr.1)

4.5 Conferences

One other source for the Center’s economic stimulus in Missouri is the local travel expenditure by out-of-state conference attendees in fiscal year 2010. These include individuals from across the United States who had to spend money on lodging, food, car rentals and other miscellaneous items in the local area. In addition, the Missouri Safety Center hosted the 15th National Congress on School Transportation Conference on May 16-19, 2010 at UCM. A total of 299 participants from the United States and Canada participated in the conference (See Appendix A).

The Center also hosted the Missouri Law Enforcement Traffic Safety Advisory Council’s (LETSAC) conference for 258 law enforcement attendees. The conference was held in July of 2010, at Port Arrowhead in Lake Ozark, Missouri.

4.6 Local Training

The Missouri Safety Center conducts numerous local transportation safety training programs every year. In fiscal year 2010, the Center conducted several fee-based transportation safety training programs that **required local attendance**.

In considering the economic impact of educational program and conference attendees’ expenditures in the local economy, it is imperative to focus on the portion of the purchases that went directly to local businesses. Below, Table 3 shows the number of students who required meals and lodging in the Warrensburg area during fiscal 2010. Over 700 individuals visited Warrensburg for a day or more.

4.7 Missouri Legislative Support and Activity

During each Missouri legislative session Missouri Safety Center staff, recognized experts in their specific fields, are asked to support a variety of legislative efforts. What follows are examples of fiscal 2010 legislative support and activity.

- Robert W. Welsh and Tracey Durbin provided testimony in support of HB 641 – “Controlled Substances,” voted do-pass by the Committee on General Laws. Ultimately, the Governor signed HB 641 on July 14th, 2011 which becomes effective August 28th, 2011.
- Robert W. Welsh and Tracey Durbin provided technical information and guidance for HB 1472 – “Controlled Substances,” voted do-pass by the Committee on General Laws.

- Robert W. Welsh and Tracey Durbin participated in the Governor’s Round-Table meeting and provided technical information and guidance regarding HB’s 1695, 1742 & 1674 – “Driving While Intoxicated,” voted do-pass by the Committee on Crime.

Missouri Safety Center	Courses	Requiring	Meals &	Lodging
Return to TOC Course	# of Days	# of Students	Meals	Lodging
4-Hr NHTSA SFST Refresher	1	12	Yes	No
4-Hr Type III Lab	1	56	Yes	No
8-Hr AAA Instructor Recert.	1	5	Yes	No
8-Hr Defensive Driving	1	33	Yes	No
8-Hr Driver Improvement Prog.	1	15	Yes	No
8-Hr L.E.T.S.	1	32	Yes	No
8-Hr Police Driving Refresher	1	4	Yes	No
16-Hr Type II Lab	2	71	Yes	Yes
24-Hr Basic Police Driving	2	64	Yes	Yes
24-Hr School Bus Driver Trainer	3	23	Yes	Yes
24-Hr SFST Basic	3	13	Yes	Yes
32-Hr Type Operator	3-4	30	Yes	Yes
40-Hr Type II	5	39	Yes	Yes
64-Hr CDL	8	8	Yes	Yes
76-Hr MSF RCP	10	10	Yes	Yes
DrED 2030 & 2040	8	16	Yes	Yes
15 th National Congress on Pupil Transportation Conference	3	299	Yes	Yes
Totals	55	730	All	59% Yes

Table 3

5 ECONOMIC IMPACT ANALYSIS OF THE MISSOURI SAFETY CENTER

An economic impact study traces *direct* spending through an economy and measures the snowballing effects of that spending. It documents how many jobs are supported locally and how much a community benefits from the presence of an organization such as the Missouri Safety Center.

This study utilizes the methodology developed by the American Council on Education for the measurement of economic impact. The model, developed in 1971, details expenditures from various sources and then uses a basic *multiplier* to estimate total dollar impact. A *multiplier* captures the “ripple effect” that expenditures have on the local economy as dollars spent are re-spent or reinvested by local businesses. After a cautious review of recent economic impact studies from across the country, a multiplier of two (2.0) has been used for this study. For example, the earnings of Center employees does not stop at the end of their initial spending but are largely spent again, rippling through the local business community.

5.1 Data Sources

Economic impact analysis typically measures or estimates the economic contributions of an organization to the local, state, and national economy. Regardless of the manifest and latent purposes of an economic impact study, the analyses must be based on appropriate data elements. All data reported and used in this study were provided by the Missouri Safety Center.

6 COMPONENTS OF ECONOMIC IMPACT

6.1 Direct Spending by the Missouri Safety Center

The Center contributes to the local economy through expenditures associated with its operational expenses, which includes all of the expenses the Center incurs while doing business. In fiscal year 2010, the Center spent approximately \$1,070,815, with the largest part of its spending being general operating expenses. The Center makes numerous purchases through both local and non-local vendors including office supplies, insurance, and repair services.

6.2 Employee Spending

The Center paid its employees \$924,927 in salary, wages and benefits during fiscal year 2010. A majority of all staff salaries and benefits result in local income. Employee spending contributes to the development of the local and state economies. These *direct* expenditures create a “multiplier” effect whereby the employees, and the businesses they shop at, make subsequent indirect purchases from the revenue of these *direct* purchases.

6.3 Visitor and Guest Spending

In addition to the economic impacts resulting from the Center’s operational expenditures and staff spending, the Center attracts a large number of out-of-town visitors and guests to the Warrensburg area for meetings, conferences, training and public services. Expenditures by the Center’s out-of-town visitors and attendees serve as a source of revenue for the local businesses; i.e., they lodge in local hotels, eat at the local restaurants, buy gas and other commodities, etc. Their direct spending supports more jobs in the service sector. These expenditures probably would not have occurred if not for the Center.

7 METHODOLOGY

7.1 Local Economic Impact of the Missouri Safety Center in FY 2010

Table 4 shows the economic impact calculation of the Missouri Safety Center on the local economy based on the Center's capital expenditure, compensation and benefits to employees and visitor spending for fiscal year 2010.

Missouri Safety Center Source	FY 2010 Initial Expenditure	Local Direct	Economic Multiplier	Impact Total Value
General Operating Expenses Discounted by 15% for "leakages"	\$1,070,815	\$910,195	2.0	\$1,820,390
Compensation and Benefits Discounted by 15% for "leakages"	\$1,058,049	\$999,343	2.0	\$1,999,686
Visitor Spending	\$ 75,000	\$ 75,000	2.0	\$ 150,000
Local Economic Impact Total				\$3,969,076

Table 4

7.2 State-wide Economic Impact

Table 5 calculates the full economic impacts of the Missouri Safety Center on the state economy. The analysis includes *direct*, *indirect* and *induced* impacts—spending that would not occur without the existence of the Missouri Safety Center.

Missouri Safety Center Source	FY 2010 Initial Expenditure	Statewide Direct	Economic Multiplier	Impact Total Value
General Operating Expenses	\$1,070,815	\$1,070,815	2.0	\$2,141,630
Compensation and Benefits	\$1,058,049	\$1,058,049	2.0	\$2,116,098
Visitor Spending	\$ 75,000	\$ 75,000	2.0	\$ 150,000
Statewide Economic Impact Total				\$4,407,728

Table 5

State-wide economic activity stimulated by the Center generates local, state and federal tax revenues. The effect of Center's operation on employment is another important consideration, especially at the local level. The Bureau of Economic Analysis estimates that approximately 20 jobs emerge from each additional \$1 million of output.

7.3 Social Impact Analysis of the Missouri Safety Center

The value of the Missouri Safety Center cannot be measured in dollars alone. The Center significantly impacts the lives of the citizens of Missouri through many of the public safety programs and services it provides. For example, the Center provides highway safety educational and awareness opportunities to the public in an effort to reduce the number of Missouri traffic crash fatalities, injuries and property loss. Through observational surveys, the Center assists the Highway Safety Division (HSD) of MoDOT in evaluating traffic crash data to determine target populations and geographic locations in order to more effectively implement appropriate safety countermeasures.

The following fatality and injury data suggests the social impacts of many of the Center's highway safety activities:

- Missouri fatality and injury data show a decline between 2007 and 2009, despite a slight increase in road travel. For example, in 2007, there were 992 traffic fatalities and 7,744 disabling injuries in Missouri. Using a standard – per 100 million miles of vehicle travel (Per HMVM), the fatality rate was 1.4 and the disabling injury rate was 11.2. In 2009, the Per HMVH fatality rate dropped to 1.3 (878 fatalities) and the disabling injury rate dropped to 9.5 (6,539 disabling injuries).
- A more significant impact of the Center on traffic fatality reduction can be seen when comparing 2009 over-all traffic crash data to those of 1990. In 1990, the Per HMVH fatality rate was 2.2 and the disabling injury rate was 19.7. Not since 1950 has Missouri seen so few people killed in highway traffic crashes annually. For four years in a row, Missouri has enjoyed a reduction in its highway fatalities. Overall, since 2005, traffic deaths decreased 31% due to reducing the number of injuries and deaths on Missouri roadways.
- The Center is very proactive in effective measures that prevent injuries and deaths from motorcycle injuries. In 2009, a total of 85 persons were killed and 2,182 were injured in motorcycle crashes. These crashes account for only 1.6% of all 2009 Missouri traffic crashes but 10.7% of all fatalities. There's a 5.6% decrease in the rate of change when comparing total 2009 motorcycle traffic crashes with those in 2008. Specific to the efforts of the Missouri Motorcycle Safety Program, there was a 19.4% decrease in motorcycle crashes between 2008 and 2009.
- It is a well known fact that the cost of alcohol impaired driving extends beyond those immediately involved. Tax payers share the burden of exorbitant cost associated with alcohol related injuries, including fire, ambulance, police, towing, emergency and long-term health care services. The Center's research and prevention programs help both local and state governments to prevent alcohol related injuries in Missouri through anti-drunk driving enforcement campaigns.

[Return to TOC](#)

- Of all 2009 Missouri traffic crashes, 4.9% were drinking related. Of all fatal traffic crashes, 30.1% were drinking related. A total of 264 persons were killed and 4,357 were injured in drinking-related traffic crashes. There was a decrease of 2.0% in the rate of change when comparing total 2009 drinking-related traffic crashes with those in 2008. There was a decrease of 1.3% when comparing 2009 fatal drinking-related traffic crashes with 2008.
- Preventing traffic accidents among younger drivers or passengers (age 20 or less) is a top priority of the Missouri Safety Center. Of all 2009 Missouri traffic crash fatalities involving younger drivers or passengers, there were 139 fatalities and 13,759 injuries. There was a decrease of 15% in the rate of change when comparing total 2009 young drivers or passengers with 2008 fatalities of 160. There was a decrease of 9.6% in the rate of change when comparing total 2009 young drivers or passengers with 2008 injuries of 15,097.

8 SUMMARY AND CONCLUSIONS

This report presents the results of an analysis of the economic and social impacts of the Missouri Safety Center on the local and state economy. The Center significantly impacts the lives of citizens of Missouri. As a major transportation and safety research operation, the Center enriches the local community and the state of Missouri through its educational, research, and public service activities. The Center has provided a stable source of income for individuals and local businesses since 1967. This study gives the Missouri Safety Center helpful information to better understand its impacts in the local and state economy, thus providing Center administrators with a very useful tool for communicating the economic and social value of the Center to the local community, state officials and policy makers, and other government officials. The Missouri Safety Center is a major contributor to the social and economic fabric of the people of Missouri.

The Center provides broad-based highway safety education and various training programs to the citizens of Missouri and throughout the United States. The Center has a reputation that draws professionals from around the world to the UCM campus. In addition to the significant economic and social values accruing to the local community through the Missouri Safety Center, other professional activities organized and held at the Center add to the University's academic reputation, thus attracting scholars and professionals from around the country and the world to its campus.

The Center provides a great opportunity for faculty, staff and other professionals who are interested in conducting research in transportation, safety, crashes, impaired driving, criminal justice, etc.

APPENDIX A

**Economic Impact of the
15th National Congress on School Transportation Conference
held at UCM and
Sponsored by the Missouri Safety Center**



Prepared by

Bob Adebayo, PhD
Director of Institutional Research
University of Central Missouri
Warrensburg, Missouri

June 2010

[Return to TOC](#)

**Economic Impact of the 15th National Congress on School Transportation
Conference held at UCM and sponsored by the
Missouri Safety Center**

This study provides an estimation of the economic impact of the 15th National Congress on School Transportation Conference held at UCM's Missouri Safety Center in May 16-19, 2010. This analysis is based on a study performed at the request of the director of the Missouri Safety Center. The study's objective is to estimate the economic impact of the conference on the local economy.

The figures used for estimating the economic impact of the conference are derived from the following data submitted by the Missouri Safety Center:

1. **Number of participants:**
 - a. 299
 - b. From 48 states and Canada (not represented MS & RI)
 - c. Some drove in but most flew into KCI and rented cars

2. **Number of days the Conf was held on UCM campus:**
 - a. 4-days (May 16-19, 2010)
 - b. Most participants arrived 5/16 and left 5/19 but approximately 20 arrived on 5/15 (steering committee members)

3. **Registration fees and any other revenues:**
 - a. Registration fee - \$330.00 each
 - b. 14th NCST book sales - \$280.00 total

4. **Local expenses incurred by participants during the conference (lodging, meals, travel):**
 - a. Conference attendees stayed in hotels in Warrensburg, Knob Noster, Clinton, Higginsville and Lee's Summit. We completely filled the Warrensburg Holiday Inn Express & Comfort Inn.
 - b. The conference registration included the following meals (guests were responsible for all other meals):
 - i. 5/16/10 – Evening reception, snacks only
 - ii. 5/17/10 – Lunch and mid-day snacks
 - iii. 5/18/10 – Lunch and mid-day snacks
 - iv. 5/19/10 – Lunch and mid-day snacks. The attendees left after lunch this day.

5. **UCM Campus facilities used:**
 - a. Union ballroom (all three parts) and 5 other rooms
 - b. Union Facilities
 - c. Sodexo Catering for lunches and snacks
 - d. Guest temp parking passes

[Return to TOC](#)

6. Any other information on spending in the community:

- a. We heard from several attendees about trips to Wal-Mart and Walgreens as well as the local restaurants.

Estimated economic impact of the conference on the local economy is shown below:

Estimated Economic Impact of the 15th National Congress on School Transportation Conference held at UCM and Sponsored by the Missouri Safety Center

Revenues	Initial Expenditure	Direct	Multiplier	Total Value
Registration Fee \$330.00 each for 299 participants	\$98,670	\$98,670	2.0	\$197,340
Book Sales	\$ 280	\$ 280	2.0	\$ 560
Daily Expenditures by Participants 20 steering committee members (5-days)*	\$ 9,000	\$ 9,000	2.0	\$ 18,000
Daily Expenditures by other 279 Participants (4-days)*	\$100,440	\$100,440	2.0	\$200,880
Total Local Economic Impact				\$416,780
*Adjusted for 10% leakage				

Assumption and Conclusions

This study provides a reasonable, conservative estimate of the economic impacts of the 15th National Congress on School Transportation Conference held at the Missouri Safety Center in May 2010 based on the following assumptions:

(1) After a careful review of recent economic impact studies from across the country and considering the current economic situation of the country, a multiplier of 2.0 was used for this study. A multiplier captures the “ripple effect” that expenditures have on the local economies as dollars spent are re-spent or reinvested by local businesses.

(2) A leakage of 10% was used to calculate overall economic impact. A leakage identifies the proportion of direct expenditures by conference participants that leave the local area and have no further effect within the area (including expenditures at KCI, Lee’s Summits and out- of- town rental cars).

(3) Visitor daily spending of \$100.00 is based on estimates used in recent studies.

[Return to TOC](#)

While this economic impact analysis focuses only on the economic benefits of the 15th National Congress on School Transportation conference held at the Missouri Safety Center, the Center provides other intangible safety effects on the local/regional economy. The value of the Center cannot be measured in dollars alone. The center continues to help citizens improve their quality of life through many of the traffic and transportation safety, criminal justice and general safety programs aimed at teenagers and adult drivers in Missouri.

[Return to TOC](#)

BIBLIOGRAPHY

Caffrey, J. and Isaac, H.H. *Estimating the Impact of a College or University on the Local Economy*. American Council on Education, 1971.

Miller, Ted R. *The Cost of Injuries to Employers: A NETS Compendium*. National Highway Traffic Safety Administration, 1992.

Miller, Ted R. *Injuries to Workers and Their Dependents*. Journal of Safety Research, 1995.

Miller, Ted R., Pindus N., Douglass J. and Rossman S. *Nonfatal Injury Incidence, Costs, and Consequences: A Data Book*, Washington, DC. The Urban Institute Press, 1995.

Blincoe, L.J. *The Economic Impact of Motor Vehicle Crashes*. Washington DC: National Highway Traffic Safety Administration, 2002.

Taylor, D. M., Miller, Ted. R. and Cox, K. L. *Impaired Driving in the United States: State Cost Fact Sheets*. Final Report on NHTSA Task Order #7, Contract DTNH22 98 D 35079, Washington, DC: National Highway Traffic Safety Administration, 2002.

The Economic Benefit from Investment in University Based Research, Development and Education. Arizona State University, Tempe, AZ, 2003.

Missouri's Impaired Driving Strategic Plan. Missouri Coalition for Roadway Safety, 2009.

Traffic Safety Facts – Alcohol Impaired Driving. US Department of Transportation, National Highway Traffic Safety Administration, 2009.

Missouri Traffic Safety Compendium. Department of Public Safety, Missouri State Highway Patrol's Statistical Analysis Center, 2009.

Missouri Traffic Crashes. Department of Public Safety, Missouri State Highway Patrol's Statistical Analysis Center, 2010 Edition – 2009 Statistics.

State of Missouri 2011 Highway Safety Plan and Performance Plan. Missouri Department of Transportation, Highway Safety Division, 2010.