



**2008**  
**Highway Safety Plan**  
**& Performance Plan**



Missouri Department of Transportation  
**Highway Safety Division**  
2211 St. Mary's Boulevard  
P.O. Box 270  
Jefferson City, MO 65102  
800.800.2358 or 573.751.4161

# Table of Contents

<b>1) OVERVIEW</b>	
PROCESS DESCRIPTION	1
STATE CERTIFICATIONS AND ASSURANCES	2
<b>2) MISSOURI’S HIGHWAY SAFETY PLAN and PERFORMANCE PLAN</b>	
Supporting Background— <i>Missouri’s Blueprint for Safer Roadways</i>	9
<i>Blueprint</i> Strategies	10
<i>Blueprint</i> Implementation	10
HSP and Performance Plan Overview	11
Benchmarks	11
Best Practices Countermeasures	11
Partnerships	12
Planning, Programming & Implementation Timeframes	13
- HSP and Annual Report	14
- SAFETEA-LU Incentive Grant Programs (other than 402)	15
Grant Applications	16
Grant Selection Process	16
Grantee Compliance Requirements	18
<b>3) STATEWIDE TRAFFIC CRASH ANALYSIS</b>	
Problem Identification	19
20-Year Death & Disabling Injury Rates	20
3-Year (2004-2006) Death & Disabling Injury Rates	21
Current Traffic Crash Data	22
Data Collection	23
Contributing Factors	23
Total Fatalities and Disabling Injuries by Target Area	24
Urban versus Rural Crash Experience	25

<b>4) PUBLIC INFORMATION AND EDUCATION</b>	
Background	26
Benchmarks	27
Performance Measures	27
Strategies	27
<b>5) AGGRESSIVE DRIVERS</b>	
Background	29
Benchmarks	30
Performance Measures	30
Strategies	30
<b>6) ALCOHOL AND OTHER DRUGS</b>	
Background	31
Young Impaired Drivers (under age 21)	32
Benchmarks	33
Performance Measures	33
Strategies (Public Information & Education)	33
Strategies (Enforcement)	34
Strategies (Prosecution/Adjudication)	34
Strategies (Technology)	35
Strategies (Hazard Elimination – Sect 154 Open Container Transfer)	35
<b>7) OCCUPANT RESTRAINTS</b>	
Restraint Use	36
Seat Belt Usage Among High School Students	37
Ejections	38
Very Young Passengers	39
Benchmarks	40
Performance Measures	40
Strategies	41

<b>8) YOUNG DRIVERS</b>	
Background	42
Young Drinking Drivers	43
Benchmarks	44
Performance Measures	44
Strategies	44
<b>9) OLDER DRIVERS—65 YEARS OF AGE AND OVER</b>	
Background	45
Benchmarks	47
Performance Measures	47
Strategies	47
<b>10) COMMERCIAL MOTOR VEHICLES</b>	
Background	48
<b>11) MOTORCYCLE CRASHES</b>	
Background	49
Benchmarks	51
Performance Measures	51
Strategies	51
<b>12) CRASHES INVOLVING SCHOOL BUSES</b>	
Background	52
Benchmarks	53
Performance Measures	53
Strategies	53
<b>13) VULNERABLE ROADWAY USERS</b>	
Pedestrians	54
Bicyclists	55
Benchmarks	55
Performance Measures	55
Strategies	55

<b>14) ENGINEERING SERVICES AND DATA COLLECTION</b>	
Engineering Services	56
Local Community Traffic Assistance	56
Internal Grants Management System	56
Training	56
Data Collection:	
STARS Maintenance & Traffic Safety Compendium	57
Law Enforcement Traffic Software (LETS)	57
Benchmarks	57
Performance Measures	57
Strategies	57
<b>15) FY '08 BUDGET &amp; PROJECT LISTING</b>	<b>59</b>

# PROCESS DESCRIPTION

## **Missouri Department of Transportation Mission**

To provide a world-class transportation experience that delights our customers and promotes a prosperous Missouri.

## **Missouri's Highway Safety Goal**

Overall Goal – to reduce number and severity of traffic crashes occurring in Missouri

Specific Goal – to reduce traffic fatalities to 1,000 or fewer by the year 2008 as identified in the state's strategic highway safety plan, *Missouri's Blueprint for Safer Roadways*.

## **Highway Safety Plan and Performance Plan**

The Governor's Highway Safety Program is outlined in an annual Highway Safety Plan (HSP) and Performance Plan. This document describes how Missouri's Section 402 State and Community Highway Safety Program grant (plus additional incentive grant funds and Section 154 transfer funds) will be used to promote highway safety within our state. The 2008 HSP encompasses the federal fiscal year October 1, 2007 through September 30, 2008.

The HSP will be a data driven, performance based, dynamic plan, allowing for continual review and modification in order to enhance the outcome of our efforts.

## **Submission**

The Missouri Department of Transportation submits herewith the 2008 Highway Safety Plan and Performance Plan to:

The Honorable Matt Blunt, Governor of Missouri  
Romell Cooks, NHTSA Central Region Administrator  
Allen Masuda, FHWA Region VII Administrator



Pete K. Rahn

Governor's Representative for Highway Safety

Copies of this document are available for purchase by writing to:

Missouri Department of Transportation  
Highway Safety Division  
2211 St. Mary's Boulevard  
Jefferson City, MO 65102

Or to download free at: [www.nhtsa.dot.gov/nhtsa/whatsup/SAFETEweb/](http://www.nhtsa.dot.gov/nhtsa/whatsup/SAFETEweb/)

# STATE CERTIFICATIONS AND ASSURANCES

(revised 8/25/05)

Failure to comply with applicable Federal statutes, regulations and directives may subject State officials to civil or criminal penalties and/or place the State in a high risk grantee status in accordance with 49 CFR §18.12.

Each fiscal year the State will sign these Certifications and Assurances that the State complies with all applicable Federal statutes, regulations, and directives in effect with respect to the periods for which it receives grant funding. Applicable provisions include, but not limited to, the following:

- 23 U.S.C. Chapter 4 - Highway Safety Act of 1966, as amended;
- 49 CFR Part 18 - Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments
- 49 CFR Part 19 - Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals and Other Nonprofit Organizations
- 23 CFR Chapter II - (§§1200, 1205, 1206, 1250, 1251, & 1252) Regulations governing highway safety programs
- NHTSA Order 462-6C - Matching Rates for State and Community Highway Safety Programs
- Highway Safety Grant Funding Policy for Field-Administered Grants

## **Certifications and Assurances**

The Governor is responsible for the administration of the State highway safety program through a State highway safety agency which has adequate powers and is suitably equipped and organized (as evidenced by appropriate oversight procedures governing such areas as procurement, financial administration, and the use, management, and disposition of equipment) to carry out the program (23 USC 402(b) (1) (A));

The political subdivisions of this State are authorized, as part of the State highway safety program, to carry out within their jurisdictions local highway safety programs which have been approved by the Governor and are in accordance with the uniform guidelines promulgated by the Secretary of Transportation (23 USC 402(b) (1) (B));

At least 40 per cent of all Federal funds apportioned to this State under 23 USC 402 for this fiscal year will be expended by or for the benefit of the political subdivision of the State in carrying out local highway safety programs (23 USC 402(b) (1) (C)), unless this requirement is waived in writing;

The State will implement activities in support of national highway safety goals to reduce motor vehicle related fatalities that also reflect the primary data-related crash factors within the State as identified by the State highway safety planning process, including:

- National law enforcement mobilizations;
- Sustained enforcement of statutes addressing impaired driving, occupant protection, and driving in excess of posted speed limits;
- An annual statewide safety belt use survey in accordance with criteria established by the Secretary for the measurement of State safety belt use rates to ensure that the measurements are accurate and representative; and
- Development of statewide data systems to provide timely and effective data analysis to support allocation of highway safety resources.

The State shall actively encourage all relevant law enforcement agencies in the State to follow the guidelines established for vehicular pursuits issued by the International Association of Chiefs of Police that are currently in effect.

This State's highway safety program provides adequate and reasonable access for the safe and convenient movement of physically handicapped persons, including those in wheelchairs, across curbs constructed or replaced on or after July 1, 1976, at all pedestrian crosswalks (23 USC 402(b) (1) (D));

Cash drawdowns will be initiated only when actually needed for disbursement, cash disbursements and balances will be reported in a timely manner as required by NHTSA, and the same standards of timing and amount, including the reporting of cash disbursement and balances, will be imposed upon any secondary recipient organizations (49 CFR 18.20, 18.21, and 18.41). Failure to adhere to these provisions may result in the termination of drawdown privileges);

The State has submitted appropriate documentation for review to the single point of contact designated by the Governor to review Federal programs, as required by Executive Order 12372 (Intergovernmental Review of Federal Programs);

Equipment acquired under this agreement for use in highway safety program areas shall be used and kept in operation for highway safety purposes by the State; or the State, by formal agreement with appropriate officials of a political subdivision or State agency, shall cause such equipment to be used and kept in operation for highway safety purposes (23 CFR 1200.21);

The State will comply with all applicable State procurement procedures and will maintain a financial management system that complies with the minimum requirements of 49 CFR 18.20;

The State highway safety agency will comply with all Federal statutes and implementing regulations relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin (and 49 CFR Part 21); (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps (and 49 CFR Part 27); (d) the Age Discrimination Act of 1975, as amended (42U.S.C. §§ 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970(P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse of



alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§ 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§ 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

**The Drug-free Workplace Act of 1988(49 CFR Part 29 Sub-part F):**

The State will provide a drug-free workplace by:

Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

- a. Establishing a drug-free awareness program to inform employees about:
  1. The dangers of drug abuse in the workplace.
  2. The grantee's policy of maintaining a drug-free workplace.
  3. Any available drug counseling, rehabilitation, and employee assistance programs.
  4. The penalties that may be imposed upon employees for drug violations occurring in the workplace.
- b. Making it a requirement that each employee engaged in the performance of the grant be given a copy of the statement required by paragraph (a).
- c. Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
  1. Abide by the terms of the statement.
  2. Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five days after such conviction.
- d. Notifying the agency within ten days after receiving notice under subparagraph (d) (2) from an employee or otherwise receiving actual notice of such conviction.
- e. Taking one of the following actions, within 30 days of receiving notice under subparagraph (d) (2), with respect to any employee who is so convicted -
  1. Taking appropriate personnel action against such an employee, up to and including termination.
  2. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency.
- f. Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f) above.

**BUY AMERICA ACT**

The State will comply with the provisions of the Buy America Act (23 USC 101 Note), which contains the following requirements:

Only steel, iron and manufactured products produced in the United States may be purchased with Federal funds unless the Secretary of Transportation determines that such domestic purchases would be inconsistent with the public interest; that such materials are not reasonably available and of a satisfactory quality; or that inclusion of domestic materials will increase the cost of the overall project contract by more than 25 percent. Clear justification for the purchase of non-domestic items must be in the form of a waiver request submitted to and approved by the Secretary of Transportation.

### **POLITICAL ACTIVITY (HATCH ACT).**

The State will comply with the provisions of 5 U.S.C. §§ 1501-1508 and implementing regulations of 5 CFR Part 151, concerning "Political Activity of State or Local Offices, or Employees".

### **CERTIFICATION REGARDING FEDERAL LOBBYING**

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all sub-award at all tiers (including subcontracts, subgrants, and contracts under grant, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

### **RESTRICTION ON STATE LOBBYING**

None of the funds under this program will be used for any activity specifically designed to urge or influence a State or local legislator to favor or oppose the adoption of any specific legislative proposal pending before any State or local legislative body. Such activities include both direct and indirect (e.g., "grassroots") lobbying activities, with one exception. This does not preclude a State official whose salary is supported with NHTSA funds from engaging in direct communications with State or local legislative officials, in accordance with customary State practice, even if such communications urge legislative officials to favor or oppose the adoption of a specific pending legislative proposal.

### **CERTIFICATION REGARDING DEBARMENT AND SUSPENSION**

#### **Instructions for Primary Certification**

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit

an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms *covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded*, as used in this clause, have the meaning set out in the Definitions and coverage sections of 49 CFR Part 29. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR Part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR Part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the list of Parties Excluded from Federal Procurement and Non-procurement Programs.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR Part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

## **Certification Regarding Debarment, Suspension, and Other Responsibility Matters – Primary Covered Transactions**

1. The prospective primary participant certifies to the best of its knowledge and belief, that its principals:
  - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
  - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of record, making false statements, or receiving stolen property;
  - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or Local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
  - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.
2. Where the prospective primary participant is unable to certify to any of the Statements in this certification, such prospective participant shall attach an explanation to this proposal.

### **Instructions for Lower Tier Certification**

By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

1. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
2. The terms *covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded*, as used in this clause, have the meanings set out in the Definition and Coverage sections of 49 CFR Part 29. You may contact the person to whom this proposal is submitted for assistance in obtaining a copy of those regulations.
3. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR Part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
4. The prospective lower tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions (see below).

5. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR Part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Non-procurement Programs.
6. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
7. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR Part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion -- Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**ENVIRONMENTAL IMPACT**

The Governor's Representative for Highway Safety has reviewed the State's fiscal year 2008 highway safety planning document and hereby declares that no significant environmental impact will result from implementing this Highway Safety Plan. If, under a future revision, this Plan will be modified in such a manner that a project would be instituted that could affect environmental quality to the extent that a review and statement would be necessary, this office is prepared to take the action necessary to comply with the National Environmental Policy Act of 1969 (42 USC 4321 et seq.) and the implementing regulations of the Council on Environmental Quality (40 CFR Parts 1500-1517).



---

Governor's Representative for Highway Safety

August 22, 2007

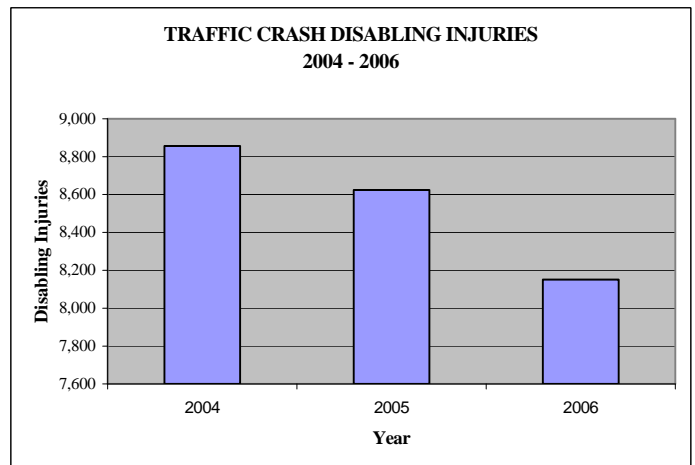
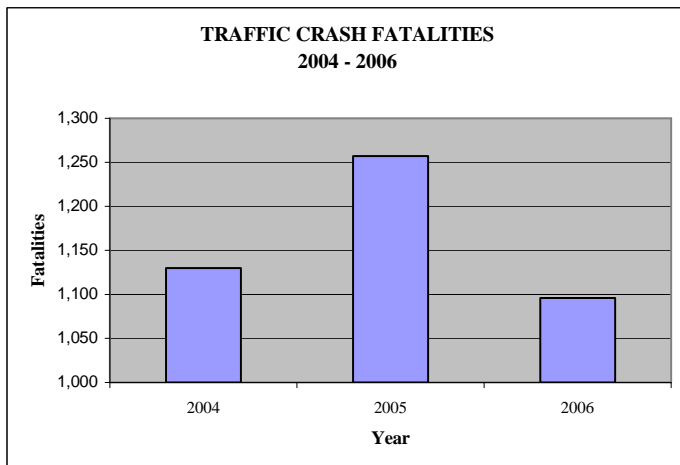
Date

# MISSOURI'S HIGHWAY SAFETY PLAN (HSP) AND PERFORMANCE PLAN

## Supporting Background – *Missouri's Blueprint for Safer Roadways*

In 2003, Missouri decided to participate with the American Association of State Highway Transportation Officials (AASHTO) in a national effort to reduce the preventable tragedies associated with traffic crashes. Utilizing a partnership approach, *Missouri's Blueprint for Safer Roadways* was developed that outlined strong opportunities to reduce fatal and serious injuries on Missouri's roads. The goal established in the *Blueprint* was set at **1,000 or fewer fatalities by 2008**. This is an 11.5% reduction from 2004, a 20.4% reduction from 2005, and an 8.8% reduction from 2006.

Year	Fatalities	Disabling Injuries
2002	1,208	9,151
2003	1,232	8,730
2004	1,130	8,857
2005	1,257	8,624
2006	1,096	8,151
2002-2004 Total	3,570	26,738
2003-2005 Total	3,619	26,211
2004-2006 Total	3,483	25,632



## **Blueprint Strategies**

Through extensive data analysis, current research findings, and best practices, strategies were identified that must be implemented in order to make significant progress toward reaching the projected goal. These strategies were dubbed our “Essential Eight”:

1. Pass a primary safety belt law, and maintain and enhance existing traffic safety laws;
2. Increase enforcement on targeted crash corridors;
3. Increase public education and information traffic safety issues;
4. Expand the installation of shoulder, edgeline and centerline rumble strips/rumble stripes;
5. Expand, improve and maintain roadways visibility features (markings, signs, lighting);
6. Expand installation of median 3-strand guard cable or equivalent barrier;
7. Deter, identify, arrest & adjudicate alcohol/other drug-impaired drivers & pedestrians;
8. Expand installation and maintenance of roadways shoulder and clear zones.

Four key Emphasis Areas were identified within the *Blueprint* and 17 Targets within them:

### I – Serious Crash Types

1. Run-off-road
2. Horizontal curves
3. Head-on
4. Crashes w/trees or poles
5. Intersections

### II – High-Risk Drivers

1. Occupant protection (use/non-use)
2. Distracted or fatigued
3. Aggressive driving
4. Impaired by alcohol or other drugs
5. Young drivers (less than 21)
6. Unlicensed, revoked or suspended
7. Older drivers (65 or older)

### III – Special Vehicles

1. Commercial vehicles
2. Motorcycles
3. School Buses

### IV – Vulnerable Roadway Users

1. Pedestrians
2. Bicyclists

For each of these emphasis areas and targets, strategies are being employed that incorporate engineering, enforcement, and education as well as public policy.

## **Blueprint Implementation**

The *Blueprint* is a collective effort of the Missouri Coalition for Roadway Safety (MCRS) and safety professionals throughout the state. The MCRS leads the charge to implement the *Blueprint* and encourage safety partners to focus their activities and programs in support of the “Essential Eight” and subsequent emphasis areas, targets, and strategies. The state has been divided into ten (10) regional coalitions that have each developed a safety plan. The coalitions meet on a regular basis to discuss their concerns, review how their countermeasures are working, and consider ways to improve their efforts.

The *Blueprint* is an overarching strategic highway safety plan for the State of Missouri while the state’s Section 402 Highway Safety Plan serves as one of the implementation components in support of the *Blueprint* efforts.

- The *Blueprint* serves as a **roadmap** for the State’s Highway Safety Plan
  - The “**Essential Eight**” provide **direction** for the HSP to follow
    - The **goal** (1,000 or fewer fatalities by 2008) determines our **final destination**

## **Highway Safety Plan (HSP) and Performance Plan Overview**

Under the Highway Safety Act of 1966, the National Highway Traffic Safety Administration (NHTSA) provides grants and technical assistance to states and communities. Section 402 of the Act requires each state to have a highway safety program to reduce traffic crashes and deaths, injuries and property damage. Section 402 grant funds are apportioned to the states based on the ratio of state population to the national population (75%) and state public road mileage to the total national public road mileage (25%).

Section 402 funds are to be used to support the State's Performance Plan, which contains performance goals, based on the problems identified by the state, and Highway Safety Plan for the implementation of a program that addresses a wide range of highway safety problems related to human factors and the roadway environment and that contribute to the reduction of crashes and resulting deaths and injuries.

## **Benchmarks**

Highway safety countermeasures are designed to enhance existing law enforcement and community/state efforts and to modify unsafe driving behaviors by promoting safe, responsible driving. Countermeasure development must also fulfill state statute requirements and federal guidelines.

Benchmarks are the “ideals” toward which we will strive. We believe that our countermeasure efforts may have an impact on the following problem areas: motor vehicle death and disabling injury rates; numbers and frequency of traffic crashes; hazardous moving violations; crashes involving special vehicles; use of safety devices; and deaths/disabling injuries involving high-risk drivers and involving vulnerable roadway users.

While these benchmarks are quantifiable for evaluation and accountability purposes, it should be noted that they are not totally reliant upon the programs implemented by the highway safety division. They are often highly dependent upon existing legislation and the motoring public's adherence to traffic laws and safe driving habits.

## **Best Practices Countermeasures**

The highway safety division makes every attempt to insure that effective countermeasure efforts are incorporated into the strategies of the Plan by employing the following methods:

1. Utilizing proven countermeasures identified within the document *Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices*, US DOT, NHTSA, January 2006;
2. Participating in national law enforcement mobilizations that combine blanketed enforcement and saturated media during established timeframes and in targeted traffic corridors; and
3. Participating in state and national training sessions in order to glean proven programs that can be replicated in Missouri.



## Partnerships

No highway safety office can work in a vacuum without communication, cooperation and coordination with our safety partners. This partnership approach allows us to expand our resources, generate diverse ideas, and incorporate new concepts and projects into our Highway Safety Plan. A sampling of the myriad of our safety partners includes:

- American Automobile Association
- American Association of Retired Persons
- Blueprint Regional Coalitions (10 – Northwest, North Central, Northeast, Kansas City, Central, St. Louis, Southwest, Springfield, South Central, Southeast)
- Cape Girardeau Safe Communities Program
- County Health Departments
- East-West Gateway Coordinating Council
- Emergency Nurses Association
- Federal Highway Administration
- Federal Motor Carrier Administration
- Institutions of Higher Education (public and private)
- Law Enforcement Traffic Safety Advisory Council
- Law Enforcement Training Academies
- Mid-American Regional Council
- Missouri Association of Insurance Agents
- Missouri Automobile Dealers Association
- Missouri Coalition for Roadway Safety
- Missouri Department of Health and Senior Services
- Missouri Department of Labor and Industrial Relations
- Missouri Department of Mental Health
- Missouri Department of Public Safety
- Missouri Department of Revenue
- Missouri Department of Transportation
- Missouri Division of Alcohol and Drug Abuse
- Missouri Division of Alcohol and Tobacco Control
- Missouri Head Injury Advisory Council
- Missouri Motor Carriers Association
- Missouri Office of Prosecution Services
- Missouri Police Chiefs Association
- Missouri Safety Center
- Missouri Safety Council
- Missouri Sheriffs Association
- Missouri State Highway Patrol
- Missouri Youth/Adult Alliance
- Mothers Against Drunk Driving
- Motorcycle Safety Committee
- National Highway Traffic Safety Administration Central Region
- Office of State Courts Administrator
- Operation Impact
- Partners in Environmental Change
- Partners in Prevention
- Safe Kids Coalitions
- Safety Council of the Ozarks
- State Farm Insurance
- Think First Missouri
- Traffic Safety Alliance of the Ozarks

In addition to our Highway Safety partners, each *Blueprint* regional coalition has an extensive base of local partners. During the 2007 legislative session, the MCRS established a widespread grassroots network of safety advocates statewide. These partners numbered well over 600. The highway safety office is able to collaborate with those partners at a lower tier level by working through our regional coalition contacts.

## **Planning, Programming and Implementation Timeframes**

The state's highway safety program, as explained earlier, is a federal grant program. The federal fiscal year runs from the period October 1 through September 30.

The tables on the following pages represent the timeframes within which the agency must operate in order to meet our federal requirements. The timeframes also provide a quick overview of when grant applications, program reports, and annual reports are due. This information provides our grantees and the general public a clearer picture of our internal process.

Some dates are firm—those established by the federal government for submitting our HSP, Annual Report, and supplemental grant applications. Some of the dates established by the Highway Safety Division are more fluid; they may be revised in order to allow the agency to function more efficiently.

The first table sets the timeframes for the basic Section 402 State and Community Program Grant and the Annual Report for that grant. The second table establishes the timeframes for supplemental grants the agency may receive under the additional provisions of SAFETEA-LU.

# Planning, Programming and Implementation Timeframes

## Highway Safety Plan and Annual Report

ACTIVITY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Data collection and analysis			O	N	G	O	I	N	G			
Contract monitoring (HS staff)			O	N	G	O	I	N	G			
Grantee monthly reimbursement vouchers due				DUE	BY	THE	10 <sup>TH</sup>	EACH	MONTH			
Solicitation letters sent to prospective grantees					1							
Regional grant application training sessions						1 - 15						
Grant applications due to HS								1				
Grant applications review & budget meetings									15 - 30			
HSP & Performance Plan due to NHTSA										31		
Mail grantee award and denial letters												1
Contracts written and reviewed internally												10
Regional contract award workshops w/grantees												15
Federal fiscal year ends (contract ending date)												30
All funds must be obligated for new fiscal year												30
Federal fiscal year begins (contract start date)	1											
Mail letters requesting year-end reports	15											
Year end reports due from grantees		15										
Compile & print annual report			15									
Annual report & final cost summary due			31									
Audit closeout (within 90 days of fiscal year end)			31									

## Planning, Programming and Implementation Timeframes

### SAFETEA-LU Incentive Grant Programs (other than 402)

ACTIVITY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Data collection and analysis	O N G O I N G											
Contract monitoring by HS staff	O N G O I N G											
Grantee monthly reimbursement vouchers due monthly	DUE BY THE 10 <sup>TH</sup> EACH MONTH											
Safety Belt Use Survey Results from previous calendar year	1											
Section 154 Open Container Certification (eligible as soon as the law is passed and is being enforced)												30
Section 405 Occupant Protection Incentive Grant application due					15							
Section 406 Safety Belt Incentive Grant application due (eligible as soon as the law is passed and is being enforced)									30			
Section 408 Data Improvement Incentive Grant application due									15			
Section 410 Alcohol Impaired Driving Incentive Grant application due											1	
Section 1906 Racial Profiling Incentive Grant application due										1		
Section 2010 Motorcycle Safety Incentive Grant application due											1	
Section 2011 Child Safety & Booster Seat Incentive Grant application due										1		

## Grant Applications

The Highway Safety Division hosts grant application workshops to which all potential grantees are invited. These workshops are held in five strategic regional locations (Farmington, Creve Coeur, Jefferson City, Springfield, and Lee's Summit) so that no participant has to travel terribly far in order to attend. They are usually scheduled between March 1 and 15.

At the workshops, participants are provided a packet explaining the mission of the program, the types of projects eligible for award, and (for local law enforcement agencies) statistical reports of their fatal and serious injury rankings for total crashes and crashes attributed to alcohol use, speeding, and young drivers. The rankings are by city, county and unincorporated portions of each county.

Highway Safety program coordinators state the purpose of the highway safety program and the statewide goal, and help the potential grantees understand how their efforts are required in order to positively affect the goal. Program areas are identified and the Highway Safety Division's web-based grant management system and on-line reporting system is detailed for them. These seminars are used as an opportunity to share any new contract conditions, application process changes, or legislative changes that may impact our grant program. They are told that the deadline date for submission of applications is May 1.

## Grant Selection Process

The highway safety program staff members each review the applications relative to their specific areas of expertise. During this preliminary review, they assess the applications to **determine their relevancy toward meeting our highway safety goals**. Applicants are contacted if clarification is needed. In essence, they prepare a case, based on their knowledge and experience, to support or deny the application to the rest of the staff.

Fatal and disabling injury crash rankings are performed for all cities, all counties, and the unincorporated areas in the state. These rankings are conducted for the problem areas of alcohol, speed, young drinking drivers, and older drivers. In addition, the cities and unincorporated areas in each county are given a cumulative ranking, e.g. combining the fatal, serious injuries, alcohol, speed and young drinking driver crash rankings into a single rating for each. Law enforcement applications are assessed to determine where they fit within the rankings by the type of project they are choosing to conduct. While the highest-ranking cities/counties are most often given priority because of the potential impact of their project, other considerations are taken into account. For instance, a lower-ranking city may be given a project because their county ranks high or they may fall within a dangerous corridor. Some communities may be given a project in order that they can become an active participant in the national mobilizations; while others are given consideration because we have determined a need exists to garner traffic safety minded agencies within a particular geographic location.

An internal team comprised of Highway Safety program staff and the traffic safety section of MoDOT's Traffic Division review all grant applications. Several days are set aside to review all applications and hear both supporting arguments and issues of concern. The reviewers assess the applications taking many factors into consideration:

- Does the project fall within the national priority program areas (alcohol and other drug countermeasures; police traffic services; occupant protection; traffic records; emergency medical services; speed; motorcycle, pedestrian or bicycle safety)?
- Does the project address the Key Emphasis Areas identified within the Blueprint and does it have the ability to impact statewide traffic crash fatalities and disabling injuries?
- Does the problem identification sufficiently document problem locations, crash statistics, targeted population, demonstrated need, and the impact this project would have on traffic safety problems in their community?
- Have "best practices" countermeasures been proposed in order to make a positive impact on the identified problem?
- Will this project provide continuity of effort in a particular geographic region (such as multi-jurisdiction enforcement) or in a particular program area (occupant protection surveys)?
- Will the activity serve as a "foundational project" that satisfies criteria for additional federal funding (e.g., sobriety checkpoints, server training, underage drinking prevention)?
- Does the project alleviate, eliminate or correct a problem that was identified in a federally conducted assessment of a highway safety priority program area?
- Will the project satisfy or help satisfy federal regional goals for highway safety?
- Are innovative countermeasures proposed and, if so, is there an effective evaluation component included?
- Are any local in-kind resources proposed to match the federal grant efforts?
- Does the applicant propose developing partnerships (e.g., working with service organizations, health agencies, and/or insurance companies; conducting multi-jurisdiction enforcement efforts) in order to expand their resources and enhance their outcomes?
- Has past experience working with this grantee been positive (have they performed according to expectations)?
- Is the local government or administration supportive of this proposed activity?
- If equipment is requested, is the equipment supporting a project or enforcement activity; does the agency have the ability to provide a local match for part of the equipment purchase?
- Is there sufficient funding in the budget to support all or part of this application?

The applications are discussed at length to determine whether they should be funded, the level of funding, which grant funding source should support the project, and whether the activity is a state or local benefit (40 percent of funds must be expended toward local benefit).

Equipment requests are most often required to include a 50% match. When a local match is unavailable, those applications are reviewed on a case-by-case basis to determine whether this agency can provide full support. During the meeting, this information is continually updated into the Highway Safety Division's grant management system so that real-time information is immediately available. By the end of the meeting, there is a complete listing of the approved projects that will best support the mission and work toward reaching the *Blueprint* goal.

## **Grantee Compliance Requirements**

All law enforcement agencies are required to report the following information to the appropriate state repositories. Failure to do so may result in the loss of Highway Safety grant funding.

Uniform Crime Reporting—RSMo 43.505—Crime incident reports shall be submitted to the Department of Public Safety on the forms or in the format prescribed by DPS, as shall any other crime incident information which may be required by DPS.

Racial Profiling—RSMo 590.650—Each law enforcement agency shall compile the data described in subsection 2 of Section 590.650 for the calendar year into a report to the Attorney General and submit the report to the AG no later than March first of the following calendar year.

Statewide Traffic Accident Reporting System (STARS)—RSMo 43-250: Every law enforcement officer who investigates a motor vehicle accident resulting in injury or death to a person, or total property damage to an apparent extent of \$500 or more to one person, or who otherwise prepares a written report as a result of an investigation of an accident, shall forward a written report of such accident to the Superintendent of the MSHP within ten days after investigation of the accident, except that upon the approval of the Superintendent, the report may be forwarded at a time and/or in a form other than as required in this statute.

Driving While Intoxicated Tracking System (DWITS)— A fully functional statewide Traffic Arrest System / DWI Tracking System was implemented in January 2005 that interfaces the MSHP, Department of Revenue, and Office of State Court Administrator systems with the capability to track a DWI offense from the initial arrest by a law enforcement agency, through prosecution with disposition and charge amendment, and to the final court disposition and charge amendment. In addition, it can be used to identify habitual DWI offenders and conduct baseline, geographic, or demographic statistical DWI analyses.

The DWITS is a secure, real-time offense management system deployed via an Intranet for use by authorized state and local criminal justice agencies, county/municipal prosecutor offices, and county/municipal courts. Criminal justice agencies maintain traffic violation and DWI offense data that are immediately available to the subsequent criminal justice jurisdiction to append disposition information to the offense record. Although utilization of DWITS is voluntary for law enforcement, prosecutors, and courts, all law enforcement agencies have been strongly encouraged to participate.

Law Enforcement Vehicular Pursuit Training—Section 402 subsection (l) pursuant to SAFETEA-LU, requires states to actively encourage all relevant law enforcement agencies in the state to follow guidelines set for vehicular pursuits issued by the International Association of Chiefs of Police. The Highway Safety division, by way of letter and inclusion in the Highway Safety Contract Conditions, encourages all Missouri law enforcement agencies to follow the IACP Vehicular Pursuit Guidelines.

# STATEWIDE TRAFFIC CRASH ANALYSIS

Making the roadway traffic system less hazardous requires understanding the system as a whole, understanding the interaction between its elements – vehicles, roads, road users and their physical, social and economic environments – and identifying where there is potential for intervention. This integrated approach more effectively addresses our traffic safety problems.

## Problem Identification

Problem identification involves the study of the relationship between collisions and the characteristics of people using the roadways, types and numbers of vehicles on the roads, miles traveled, and roadway engineering.

There are three factors that contribute to traffic crashes: the roadway and environment; the vehicle itself; and the driver (human behavior). According to studies, statistics and the experts, the human factor is the most prevalent contributing factor to traffic crashes at 93%, followed by roadway environment at 33%, and finally the vehicles at 13% (US General Accounting Office, Highlight of GAO-03-436, *A Report to Congressional Requesters*, March 2003).

Since this Plan is directed toward modifying behavior so that safety will be the accepted norm, it stands to reason that we must identify and categorize those individuals who are making unsafe decisions and/or who are currently causing traffic crashes. It will be obvious to the reader that this document references *targeted* audiences or populations. A target, of course, is the object toward which you direct your aim. The term “target audience” infers a population group that is overrepresented in a particular type of crash (e.g., drinking drivers) or is underrepresented in using safety devices (e.g., unhelmeted motorcyclists). This terminology is in no way meant to profile certain populations by age, gender, race, or nationality. Rather, this is an accepted term in all National Highway Traffic Safety Administration publications to identify specific population groups that must be reached with our messages and our enforcement efforts if we are to reduce traffic crashes and their resulting deaths and injuries.

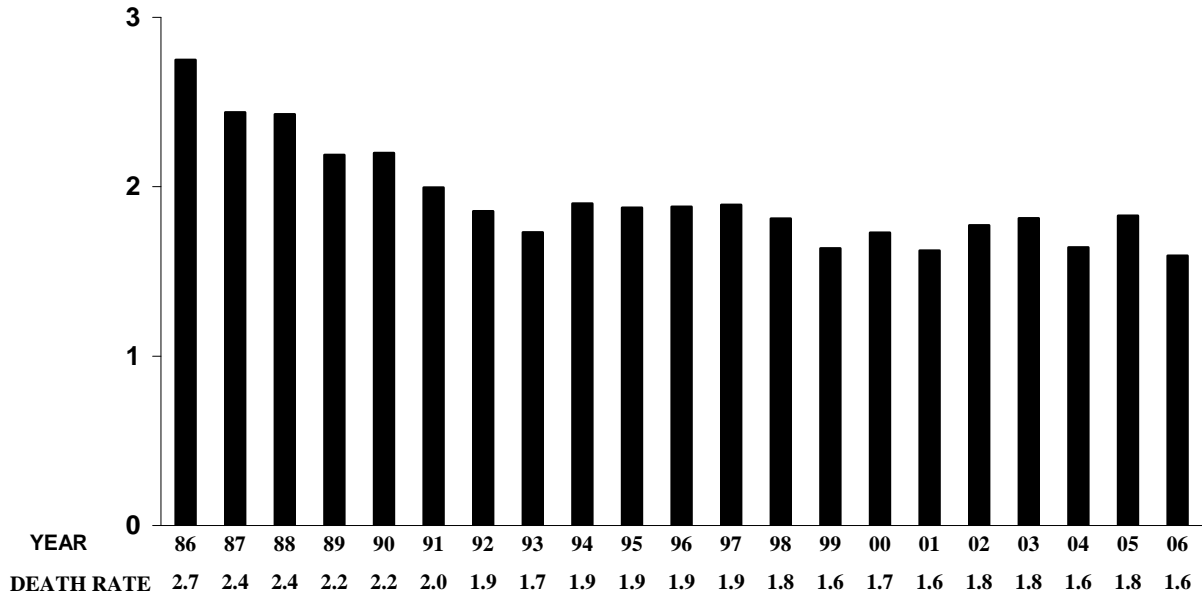
Research has shown that the number of crashes at a particular site can vary widely from year to year, even if there are no changes in traffic or in the layout of the road. A single year's data is subject to considerable statistical variation. Three years is generally regarded as a practical minimum period for which a fairly reliable annual average rate can be calculated. Statistical data from the most current three years are analyzed to support the annual Highway Safety Plan.

In the 3-year period **2004-2006**, a total of **3,483 people died** on Missouri's roadways while another **25,632 suffered disabling injuries**. A fatality is recorded when a victim dies within 30 days of the crash date from injuries sustained in the crash. A disabling injury is recorded when a victim, observed at the scene, has sustained injuries that prevent them from walking, driving, or continuing activities the person was capable of performing before the crash. While we recognize that many crashes result simply in property damage, only Fatal and Disabling Injury crashes have been targeted because they are more costly in human suffering, social and economic terms.

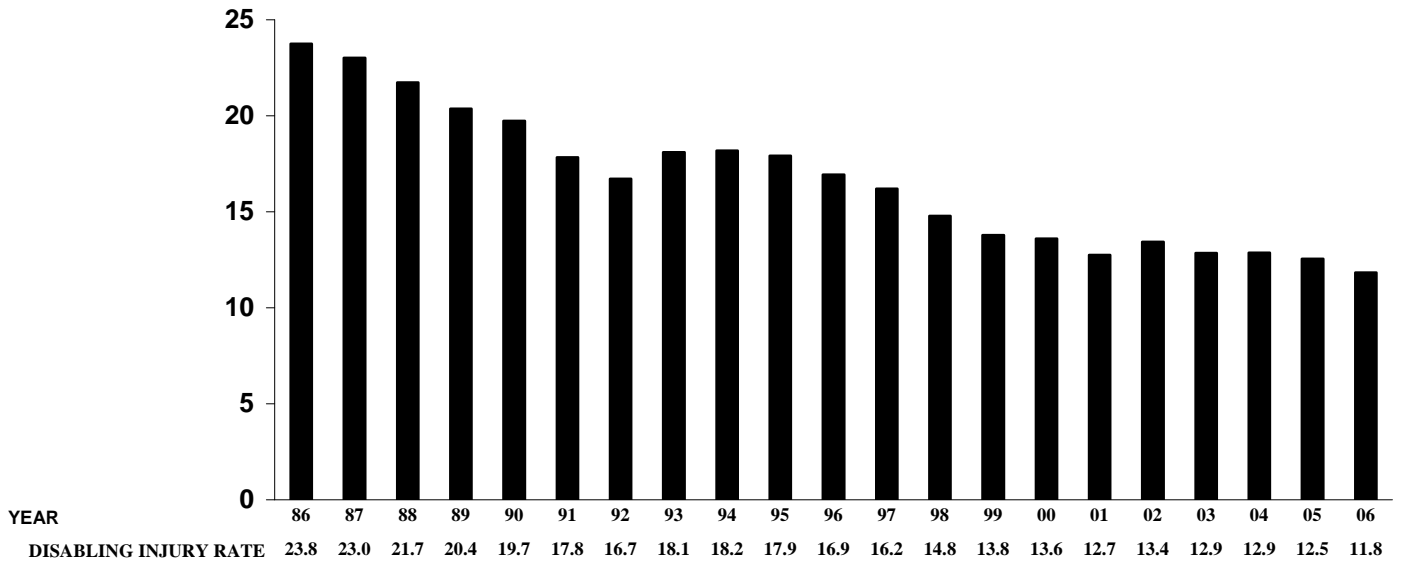
The following graphs present a long-term depiction of deaths and disabling injuries covering the 20-year period 1986 through 2006. The graphs on the following page address only the 3-year period 2004-2006 assessed within this Plan.

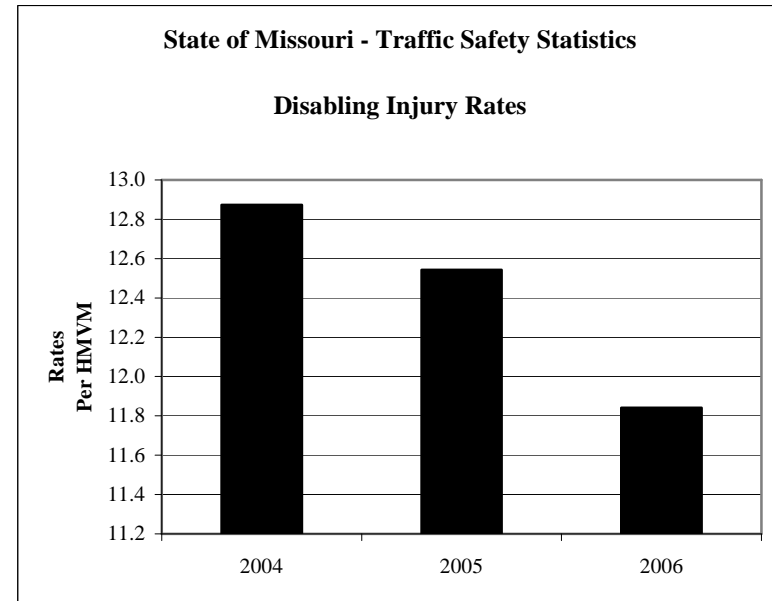


**MISSOURI DEATH RATE  
1986-2006**



**MISSOURI DISABLING INJURY RATE  
1986-2006**





Year	Fatalities	Disabling Injuries	Miles Traveled <sup>1</sup>	Fatality Rate <sup>2</sup>	Disabling Injury Rate <sup>3</sup>
2004	1,130	8,857	68,806,000,000	1.6	12.9
2005	1,257	8,624	68,754,000,000	1.8	12.5
2006	1,096	8,151	68,834,000,000	1.6	11.8

<sup>1</sup> Miles traveled were obtained from the Missouri Department of Transportation - Planning (not an official number)

<sup>2</sup> Number of fatalities per 100 million miles of vehicle travel.

<sup>3</sup> Number of disabling injuries per 100 million miles of vehicle travel.

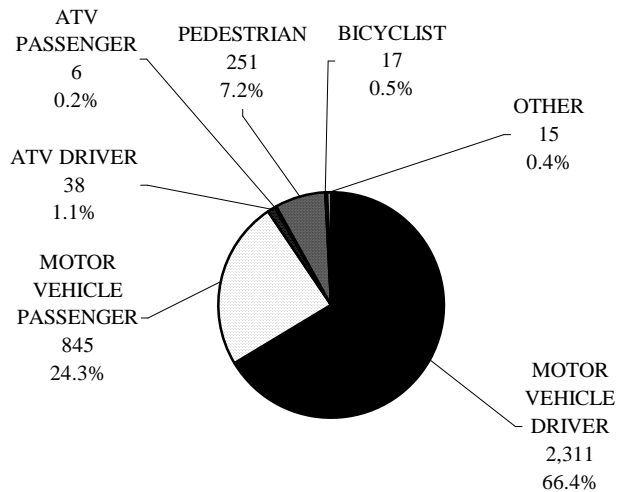
## Current Traffic Crash Data: 2004-2006

Even though statistics like the death rate indicate a positive impact is being made on Missouri's traffic safety problem, it should not be a cause for complacency. A substantial number of people continue to be killed and seriously injured on Missouri roadways and most of these traffic crashes are preventable. In 2004-2006, of the 524,619 traffic crashes, 3,094 were fatal and 19,369 resulted in serious injuries. These fatal and serious injury crashes resulted in the death of 3,483 people and 25,632 serious injuries.

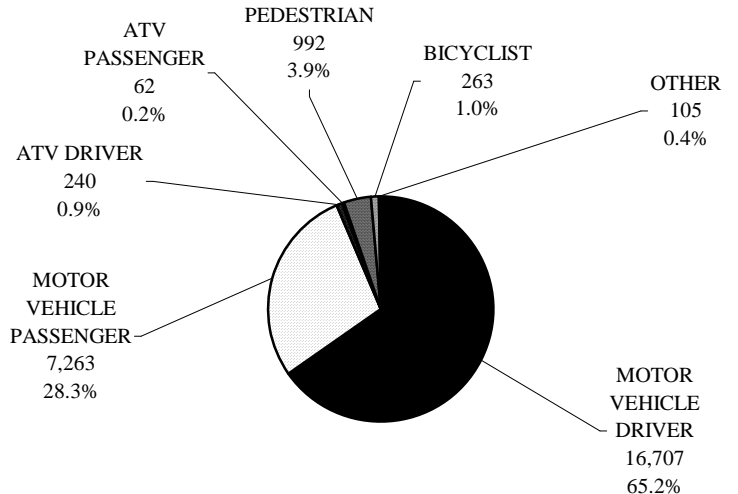
A substantial number of persons killed and injured in Missouri's 2004-2006 traffic crashes were drivers and passengers of motorized vehicles. Of the fatalities, 66.4% were drivers and 24.3% were passengers; of those seriously injured, 65.2% were drivers and 28.3% were passengers.

### 2004-2006 MISSOURI FATALITIES AND DISABLING INJURIES

**PERSONS KILLED**  
3,483



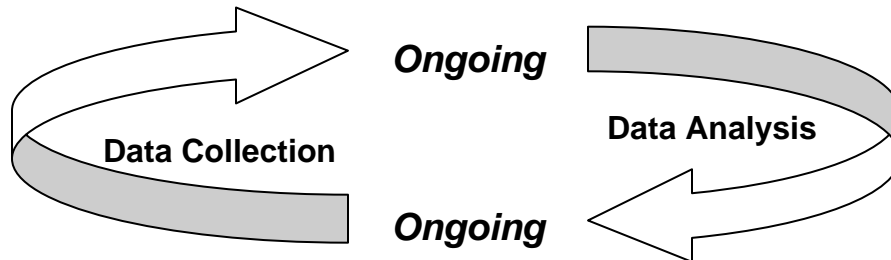
**PERSONS SERIOUSLY INJURED**  
25,632



Note: OTHER = drivers/passengers of farm implements, motorized bicycles, other transport devices, construction equipment and unknown vehicle body types.

## Data Collection

Data is the cornerstone of this study, and is essential for diagnosing crash problems and monitoring efforts to solve traffic safety problems. We must identify the demographics of the roadway users involved in crashes, what behaviors or actions led to their crashes, and the conditions under which the crashes occurred. Data collection and analysis is dynamic throughout the year.



When data is effectively used to identify repeating patterns in the dynamic interaction of people, pavement, vehicles, traffic, and other conditions, there is increased potential for successful mitigation. From this comes a reduction in the number and severity of crashes, ultimately resulting in fewer fatalities and disabling injuries.

The Missouri State Highway Patrol serves as the central repository for all traffic crash data in the state. The Safety Section of MoDOT's Traffic Division analyzes that data to compile statistics on fatalities and disabling injuries for the calendar years 2004-2006. Three years' worth of crash statistics provide a more representative sampling, thereby more effectively normalizing the data.

Collisions were analyzed to identify:

- *Occurrence* – time of day, day of week, month of year, holidays and/or special events
- *Roadways* – urban versus rural, design, signage, traffic volume, work zones, visibility factors, location within high accident corridors
- *Roadway users* – age, gender, vehicle users versus pedestrians
- *Safety devices* – used/not used (safety belts, child safety seats, motorcycle helmets)
- *Causation factors* –
  - Primary: aggressive driving, impaired by alcohol and/or other drugs, distracted or fatigued, speeding or driving too fast for conditions, red light running
  - Secondary: run off the road, head-on, horizontal curves, collisions with trees or utility poles, unsignalized intersections
- *Vehicles* – type

## Contributing Factors

Analysis of our statewide traffic crash data was based on the four Emphasis Areas and their targets as defined in the *Blueprint for Safer Roadways*:

- Emphasis Area I – Serious Crash Types
- Emphasis Area II – High-Risk Drivers
- Emphasis Area III – Special Vehicles
- Emphasis Area IV – Vulnerable Roadway Users

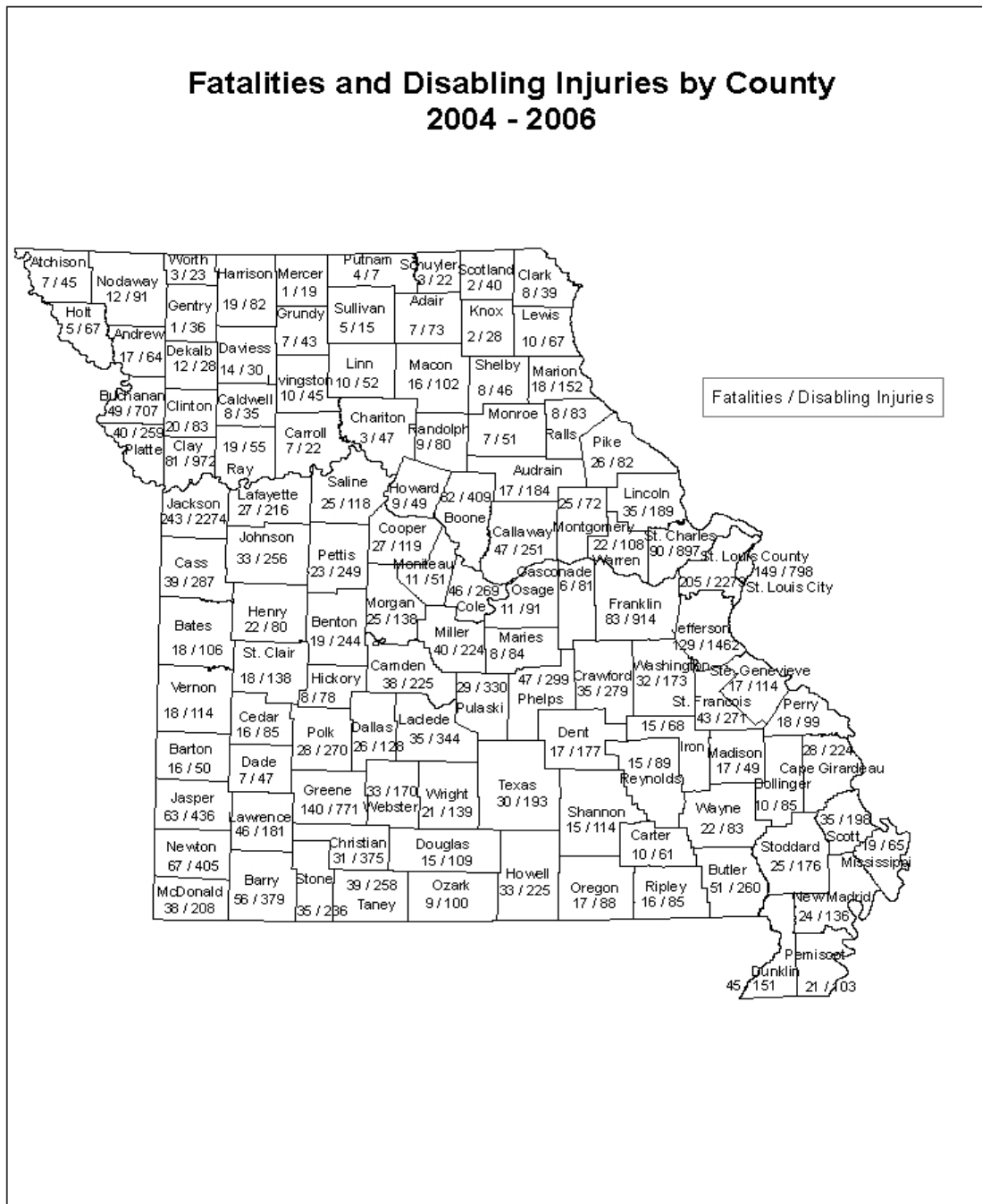
**Total Fatalities and Disabling Injuries by Target Area  
2004-2006**

Description	Total Fatalities
Nonuse of Occupant Protection Devices	1,815
Killed in Run-Off-Road Crashes	1,623
Aggressive Driving Involved	
Following too close	66
Too fast for conditions	929
Speed exceeded limit	587
TOTAL for 3 conditions	1,582
Horizontal Curves Involved	1,191
Distracted/Fatigued Drivers Involved	854
Alcohol & Other Drugs Involved	839
Young Drivers—Less than 21 Involved	750
Killed in Head-On Crashes	600
Commercial Vehicles Involved	541
Killed in Collision w/Tree	450
Unlicensed Drivers Involved	417
Killed in Unsignalized Intersection Crashes	305
Older Drivers—65-75 Involved	303
Pedestrians Killed	251
Older Drivers – 76 or Older Involved	243
Motorcyclists Killed	236
Killed in Signalized Intersection Crashes	146
Killed in Collision with Utility Pole	125
Killed in Work-Zones	62
Killed in Head-On Crashes on Interstates	60
Bicyclists Killed	17
School Buses / Bus Signal Involved	14

Description	Total Disabling Injuries
Severely Injured in Run-Off-Road Collisions	10,608
Aggressive Driving Involved	
Following too close	1,525
Too fast for conditions	6,959
Speed exceeded limit	1,750
TOTAL for 3 conditions	10,234
Nonuse of Occupant Protection Devices	7,628
Horizontal Curves Involved	7,211
Young Drivers—Less than 21 Involved	7,087
Distracted/Fatigued Drivers Involved	6,760
Alcohol and Other Drugs Involved	4,132
Severely Injured in Unsignalized Intersection Crashes	3,815
Severely Injured in Collision w/ Tree	2,704
Severely Injured in Head-On Crashes	2,613
Severely Injured in Signalized Intersection Crashes	2,471
Unlicensed Drivers Involved	2,204
Older Drivers – 65-75 Involved	2,051
Commercial Vehicles Involved	1,893
Motorcyclists Severely Injured	1,836
Older Drivers – 76 or Older Involved	1,253
Pedestrians Severely Injured	992
Killed in Collision with Utility Pole	790
Severely Injured in Work-Zones	354
Bicyclists Severely Injured	263
School Buses / Bus Signal Involved	156
Severely Injured in Head-On Crashes on Interstate	117

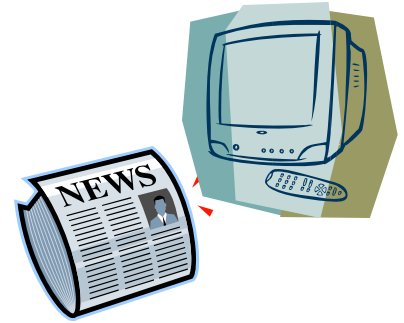
## Urban versus Rural Crash Experience

As expected, traffic crashes are not evenly distributed on Missouri roadways. They occur in larger numbers in more densely populated regions of the State compared to the rural areas. Of the 22,463 fatal and disabling injury crashes in 2004-2006, 9.6% occurred in an urban community having a population of 5,000 or more and 90.4% occurred in a rural area (under 5,000 population or unincorporated area). Rural areas of the State, however, take on even greater significance when examining traffic crashes resulting only in fatalities. In 2004-2006 fatal traffic crashes, 6.0% occurred in an urban area of the State and 94.0% in a rural area.





## PUBLIC INFORMATION AND EDUCATION



### Background

Traffic crashes, unfortunately, appear to be an accepted part of our mobile society. Drivers become complacent. They don't think about crashing until they witness a wreck, then they slow down and are cautious for a short while. After that, it's back to driving just like they were before they witnessed the scene.

Most people tend to think they are good drivers. One of the Highway Safety Division's former campaigns posed the question "*What if everybody drove like you?*" The typical response was, "*There would be fewer crashes,*" or "*We'd be better off.*" Our challenge is to make the general public aware of their poor driving habits, responsive to changing these habits, and to voluntarily comply with Missouri's traffic laws.

This is accomplished by developing highly visible, catchy campaigns that are coupled with strong enforcement efforts. Our traffic safety partners must be active players in these campaigns. Some of the most effective campaigns have been the national law enforcement mobilization efforts such as *Click It or Ticket* and *You Drink & Drive. YOU LOSE*. People heard about the mobilizations in the media, there were well-recognized logos to support the effort, and drivers were aware that the risk of apprehension was high. These campaigns have proven their ability to not only heighten awareness, but also to ultimately make positive behavioral changes.

The Public Information Subcommittee of the Missouri Coalition for Roadway Safety (MCRS) is comprised of partners throughout the state who have expertise in traffic safety programming. The subcommittee developed a central theme for use on all traffic safety materials and campaigns. The theme, *Arrive Alive*, conveys a consistent unified message regardless of whether the campaign pertains to occupant protection, drinking drivers, or any other traffic safety concern. The HSD works closely with the committee to coordinate all of our public awareness efforts. A web site was constructed to promote the state's public awareness programs such as the teen Never Made It campaign and the *Saved by the Belt* recognition program. These campaigns – plus statistics and regional information – can be viewed by visiting the web site at [www.saveMOlives.com](http://www.saveMOlives.com)



## **Benchmarks**

- A. Increase awareness and positively impact traffic safety behavior of the general public concerning impaired driving, aggressive driving, speeding, fatigued or distracted driving, sharing the road with other vehicles, and obeying traffic laws.
- B. Increase awareness regarding the importance of correctly using safety devices including safety belts, child safety seats, booster seats, motorcycle helmets and protective gear, and bicycle helmets.
- C. Increase awareness regarding driving safely and obeying the laws in construction work zones.

## **Performance Measures**

1. Monitor campaigns by following exposure of our messages and size of the audience reached
2. Track crash statistics relevant to target audiences
3. Monitor statewide safety belt use rate, teen safety belt use rate, commercial vehicle safety belt use rate, and child safety seat use rate
4. Track number of presentations given, number of exhibits and audiences reached, number of public service announcements, acceptance of and participation in campaigns by the motoring public/partners/sponsors, and the amount of traffic safety materials distributed annually

## **Strategies**

1. Serve as the point of contact for the media and the general public to field questions, conduct interviews, and provide information
2. Encourage the media to participate in campaigns by publicizing our messages
3. Publicize the services and resources of the Highway Safety Division to the general public through the MoDOT and saveMOLives web sites, in workshops, at conferences and exhibits, and through our materials
4. Update public information materials and web sites to keep information current, easily accessible, and appealing
5. Develop and promote materials/campaigns to reach specific audiences (e.g., high risk drivers, vulnerable roadway users, drinking drivers)
6. Develop and maintain a youth-specific section of the saveMOLives web site that appeals to teens/young adults
7. Actively participate in the Missouri Coalition for Roadway Safety (MCRS) public information subcommittee in order to increase coordination, communication and cooperation among safety advocates through the state
8. Promote the Arrive Alive theme developed by the MCRS and incorporate the logo in all materials
9. Work with the MCRS regional coalitions to appropriately target their messages and develop programs to meet their needs
10. Develop strategies to work with partners—both traditional and nontraditional—in order to reach wider audiences and maximize resources
11. Encourage law enforcement partners and district coalitions to report their public information activities
12. Work with the Motor Carrier Safety Assistance Program, Safe Routes to School Program, and other traffic safety programs to promote joint safety awareness campaigns when possible
13. Develop and disseminate promotional/educational materials and press releases
14. Organize and/or participate in press events and work with media outlets across the state to promote highway safety initiatives
15. Give presentations and provide training to community groups, schools, etc. as available



16. Serve on federal, state, and regional committees/boards in order to broaden opportunities to promote traffic safety issues
17. Promote law enforcement mobilization efforts: *Click It or Ticket* safety belt campaign; *You Drink & Drive. YOU LOSE* alcohol campaign; *Operation Safe Teen* youth campaign (the enforcement portion of the *Never Made It* teen campaign)
18. Purchase paid advertising to support traffic safety campaigns (e.g., occupant protection and impaired driving)
19. Support and promote MoDOT's *The Difference is You. DRIVE SMART* construction work zone public awareness campaign
20. Promote *Saved by the Belt* and *Battle of the Belt* programs
21. Promote the *Seat Belt Convincer*, *Rollover Simulator*, and *SIDNE* educational programs to assure the units are used to reach as many people as possible
22. Participate in the Missouri State Fair to educate the public on traffic safety issues and provide detailed information about child safety seats, older driver issues, and any modifications to traffic safety laws



# AGGRESSIVE DRIVERS



## Background

“The causes of aggressive driving are complex—no one has all of the answers. Some psychiatrists point to deep-rooted personal causes such as stress disorders that lead to impaired judgment. Social scientists have tended to see a connection between societal problems and uncivil or violent forms of driving behavior. What we do know is that three factors in particular are linked to aggressive driving: 1) lack of responsible driving behavior; 2) reduced levels of traffic enforcement; and 3) increased congestion and travel in our urban areas.” (Ricardo Martinez, M.D., Administrator, NHTSA, July 17, 1997).

Aggressive driving is serious problem on Missouri’s roadways and has contributed substantially to traffic crashes, especially crashes resulting in death. Aggressive drivers are defined in *Missouri’s Blueprint for Safer Roadways* as, “drivers of motorized vehicles who committed one or more of the following violations which contributed to the cause of a traffic crash: speeding; driving too fast for conditions; and/or following too close.”

### 2004-2006 MISSOURI AGGRESSIVE DRIVER INVOLVED FATALITIES AND DISABLING INJURIES TYPE OF CIRCUMSTANCE (by Crash Severity<sup>1</sup>)

CIRCUMSTANCE	FATALITIES - 1,582	DISABLING INJURIES - 10,234
Exceeding Speed Limit	37.1%	17.1%
Too Fast For Conditions	58.7%	68.0%
Following Too Close	4.2%	14.9%

<sup>1</sup> Percentage of 2004-2006 aggressive driving related fatalities and disabling injuries by type of aggressive driving behavior involved. For instance, in aggressive driving related fatalities and disabling injuries, 37.1% involved a motorized vehicle-driver exceeding the speed limit. NOTE: Multiple aggressive driving factors can be related to a single fatality or disabling injury.

Aggressive drivers not only put their own lives at risk, but the lives of others as well. Of the 1,471 people killed, 62.4% were the aggressive driver and the other 37.6% were some other party in the incident. Of the 9,589 seriously injured, slightly more than one-half (54.2%) were the aggressive drivers and nearly one-half (45.8%) being some other person involved.

Speeding (too fast for conditions or exceeding the posted limit) is a large part of the aggressive driving problem. In 2002, NHTSA conducted a national telephone survey of over 4,000 drivers which verified that speeding is a pervasive behavior with most drivers—51% indicated they drive 10 mph over the posted speed on the interstates and 34% responded that they drive 10 mph faster than most other vehicles. In 2004-2006, there were 524,619 crashes in Missouri; 16.7% involved speeding. The problem is more significant when examining fatal crashes—of the **3,094 fatal crashes, 40.9% involved drivers who were speeding.**

## **Benchmarks**

- A. 2% reduction in fatalities and disabling injuries attributable to aggressive driving crashes in comparison to the previous 3-year total (2004-2006 = 11,060).

Note: Statistics from 2004-2006 show a slight fluctuation in the number of aggressive driving fatalities and disabling injuries as a percentage of total fatalities and disabling injuries (38.4% in 2004, down to 37.4% in 2005, and at 38.1% in 2006). When reviewing fatalities only, there has also been a slight fluctuation in the number of aggressive driving fatalities as a percentage of total fatalities (42.1% in 2004, down to 41.8% in 2005, and at 42.9% in 2006).

## **Performance Measures**

1. Monitor the effects of road conditions, traffic congestion, and time constraints on aggressive driving crashes. Areas that warrant special attention are roadways with considerable construction work (locations will be defined by crash data indicating that a majority of fatal and serious injury crashes are occurring on these roads).
2. Continue to track and evaluate all crashes involving hazardous moving violations with special attention given to Speeding (exceeding posted limit and too fast for conditions) and Following Too Closely as identified in *Missouri's Blueprint for Safer Roadways*.

With further study of these control factors, we hope to be able to continually develop more effective countermeasures.

## **Strategies**

1. Expand targeted corridor projects and Selective Traffic Enforcement Programs (STEPS) conducted by the Highway Patrol and local law enforcement agencies
2. Continue to strategize with law enforcement and training academy partners to develop enforcement/awareness countermeasures and share their concepts and programs
3. Fund saturation enforcement efforts in construction/work zones in the MoDOT districts and enhance the enforcement with public awareness campaigns
4. Expand use of speed monitoring and changeable message signs
5. Expand efforts to educate roadway users on the dangers of aggressive driving and the rules of the road
6. Expand the use of red light running cameras throughout the state



# ALCOHOL AND OTHER DRUGS



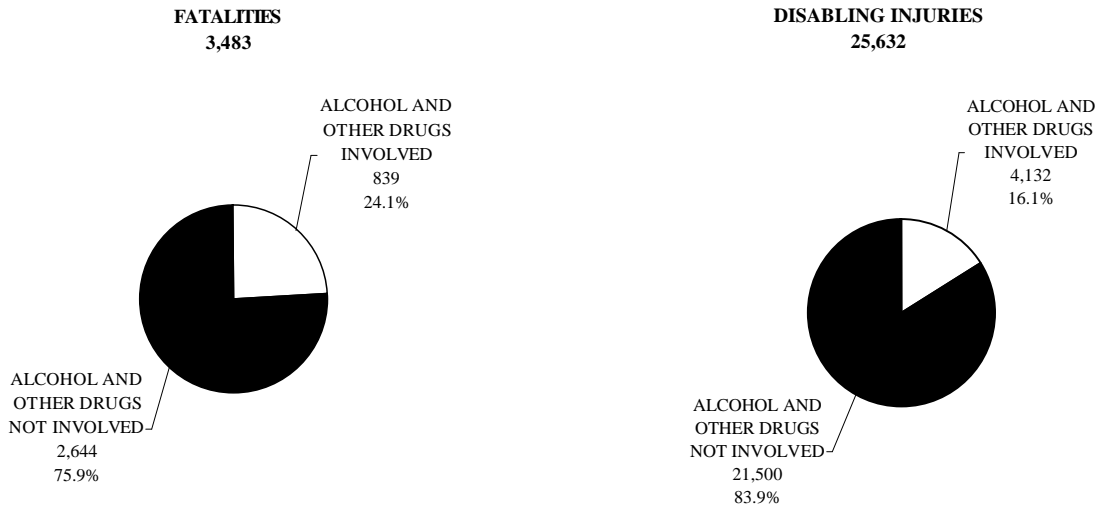
## Background

It is impossible for anyone to predict how alcohol will affect him or her on any given occasion. Every drink, especially the first, takes influence over the body and mind having a profound impact over divided attention skills like driving a motor vehicle. Only one drink could have dire consequences.

Alcohol and other drugs contribute substantially to traffic crashes on Missouri's roads, especially those resulting in death or disabling injury. In the 2004-2006 period, 524,619 traffic crashes occurred in the State. Of those, 0.6% resulted in a fatality and 3.7% involved someone being seriously injured. During the same time period, there were 25,889 traffic crashes where one or more drivers and/or pedestrians were under the influence of intoxicants and in the opinion of the investigating officer their intoxicated condition was a contributing factor to the crash. In these crashes where drivers or pedestrians were impaired by alcohol or other drugs, 839 people were killed and another 4,132 were seriously injured.

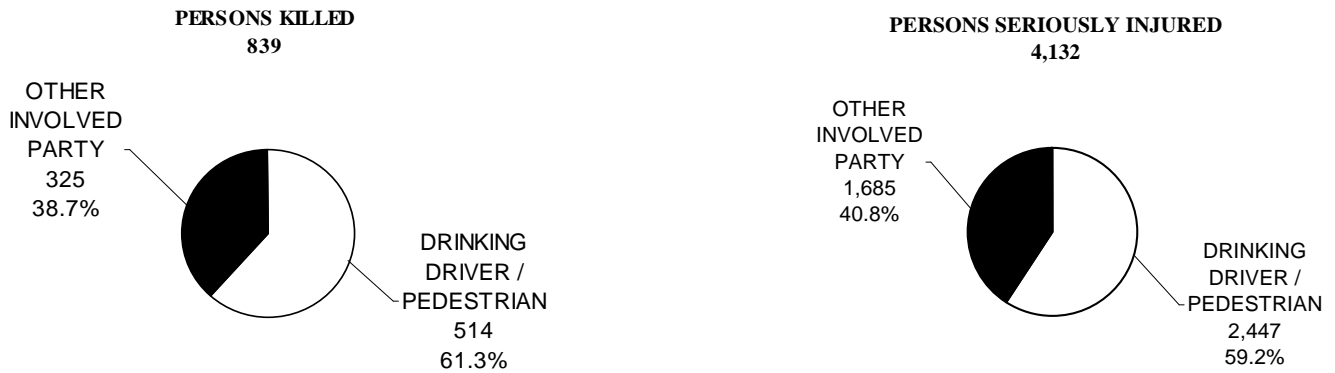
It also is important to note that impaired driving is under-reported as a contributing factor in traffic crashes. As a result, it is an even greater problem than these statistics would indicate.

## 2004-2006 MISSOURI ALCOHOL AND OTHER DRUG RELATED FATALITIES AND DISABLING INJURIES



A common misconception is that impaired drivers are mostly hurting and killing themselves. While that is often true, a substantial number of people killed and seriously injured in these crashes were not intoxicated. Their actions in these incidents probably did not contribute to the cause of the collision. Of the 839 people killed in alcohol and other drug-related traffic crashes, 61.3% were the intoxicated driver/pedestrian and 38.7% were some other involved party. Of the 4,132 seriously injured, 59.2% were the intoxicated drivers/pedestrians while 40.8% were other persons in the incidents.

## 2004-2006 MISSOURI DRINKING AND OTHER DRUG RELATED FATALITIES AND DISABLING INJURIES (Person Involvement)

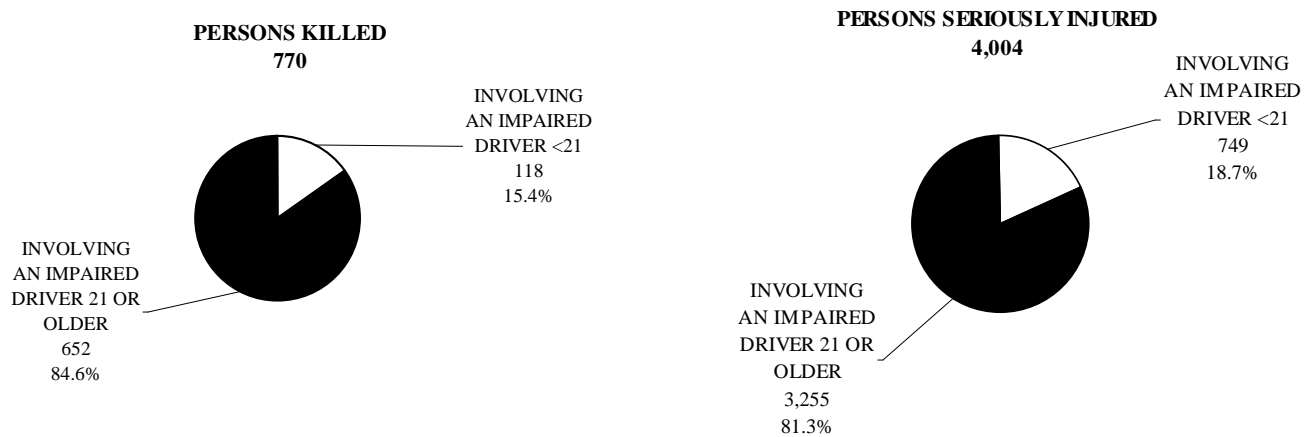


### Young Impaired Drivers (Under Age 21)

Youth make up a significant proportion of impaired drivers of motorized vehicles causing traffic crashes on Missouri roadways. Of the 25,678 impaired drivers who caused traffic crashes during 2004-2006, 15.0% were under the age of 21 (in known cases). This is especially significant when you consider it is illegal for someone under 21 to possess or consume alcohol in Missouri.

In 2004-2006, a total of 692 impaired drivers were involved in crashes where one or more persons were killed. In known cases, 15.6% of these drivers were under the age of 21. A total of 118 persons were killed in traffic crashes involving these young drivers. Of those persons killed, 44.1% were the underage drinking driver and 55.9% were some other party in the crash.

## 2004-2006 MISSOURI ALCOHOL AND OTHER DRUG RELATED FATALITIES AND DISABLING INJURIES (by Age)



**NOTE:** The data for persons killed and seriously injured involving an impaired driver by age does not include data for those crashes where the driver's age was unknown or where the pedestrian was the impaired party. Also, one alcohol and other drug related crash has the potential of consisting of an impaired driver younger than 21 and one 21 or older. In these cases, the persons killed and seriously injured will be counted in each chart shown above.

## Benchmarks

- A. 2% decrease in alcohol and other drug related fatalities and disabling injuries in comparison to the previous 3-year total (2004-2006 = 4,971).
- B. 2% decrease in alcohol and other drug related fatalities and disabling injuries involving drivers under age 21 in comparison to the previous 3-year total (2004-2006 = 867).

## Performance Measures

1. Ongoing analysis of the traffic crash data in Missouri will serve as the means to measure progress toward the benchmarks. In impaired driving crashes, specific criteria are considered: age and sex of drivers; time, date and location of occurrences; drivers versus pedestrians. Crash data will be analyzed in those target areas where alcohol countermeasure projects have been established.
2. Where available, arrest and conviction data will be used to evaluate legislation and to determine training and equipment needs for effective enforcement, prosecution, adjudication and treatment of offenders.

## Strategies

### Public Information and Education



1. Educate the public on the dangers of driving after drinking or using other drugs through public awareness campaigns such as *You Drink & Drive. YOU LOSE*, and through the distribution of educational materials at traffic safety workshops, health and safety fairs, displays, on the web site, and through public service announcements
2. Incorporate drinking driving educational programs into school systems and businesses
3. Develop statewide designated driver programs which stress alternatives to drinking and driving (CHEERS designated driver program and MoDOT public information materials)
4. Educate large numbers of alcohol servers in intervention techniques utilizing the SMART web-based server training program and continue to expand and promote the program
5. Provide support for the MCRS DWI subcommittee to address impaired driving crashes
6. Incorporate, where possible, recommendations made in the 1999 Statewide DWI Assessment
7. Incorporate, where possible, recommendations made during the 2001 BAC Symposium
8. Conduct a statewide Alcohol Assessment in 2008
9. Continue support for youth and young adult prevention and education programs including Team Spirit Leadership Conference; Team Spirit Reunion; Think First Programs (School Assembly Programs, Elementary School Curriculum, Young Traffic Offenders Program); university level Partners in Prevention and Partners in Environmental Change; local community educational programs
10. Revise and reprint alcohol educational materials as needed; expand partnerships to encourage use of these materials in their publications
11. Develop campaigns/materials to reach targeted high-risk groups
12. Develop materials to educate legislators about alcohol and other drug-related driving issues
13. Participate in interagency committees to share ideas, avoid duplication of efforts, and maximize resources (MCRS and the MCRS DWI Subcommittee, Missouri Youth/Adult Alliance, Partners In Prevention, Partners In Environmental Change)
14. Support local efforts to reduce drinking and driving – especially underage drinking – by providing technical assistance to develop programs such as DWI docudramas or *Every 15 Minutes*, loaning them collateral materials to enhance their efforts (fatal vision goggles, videos, community program guides), and providing speakers

15. Support efforts to bring the SIDNE (Simulated Impaired Driving Experience) battery-powered go carts to schools throughout the state and provide training to assure there are adequate individuals to demonstrate the units

### **Enforcement**

1. Provide funding for alcohol saturation enforcement teams, sobriety checkpoints, overtime salaries for Breath Alcohol Testing (BAT) van operations, and maintenance for BAT vans
2. Provide equipment to enhance enforcement efforts and appropriate training to ensure effective use of this equipment (e.g., breath alcohol testing instruments; enforcement vehicles; BAT vans; video cameras; and sobriety checkpoint supplies)
3. Provide training on detection and apprehension of impaired drivers (e.g., field sobriety testing, sobriety checkpoint supervisor training, courtroom testimony, Drug Recognition Experts, and DWI crash investigation techniques)
4. Provide motivational speakers for law enforcement personnel during training events such as the annual Law Enforcement Traffic Safety Advisory Council (LETSAC) conference
5. Provide supplies, support, and training for Drug Recognition Experts and the DRE Recertification Training to ensure continuity of the program
6. Assigned a State SFST Coordinator who will work in cooperation with the Impaired Driving Subcommittee of the MCRS in order to maintain standardization of the program
7. Incorporate, where possible, recommendations made in the 2006 SFST assessment, including the use of the 2006 version of the NHTSA/IACP curriculum
8. Support projects designed to prevent underage alcohol purchase, apprehend minors attempting to purchase alcohol, and provide a physical enforcement/intervention presence (e.g., Badges in Business, Server Training, Party Patrol, 1-866-MUSTB21 tipline, selective enforcement, compliance checks, and special events)
9. Incorporate, where possible, recommendations made in the 1999 DWI Assessment, including promoting the use of Missouri's Driving While Impaired Tracking System (integrated system linking the local law enforcement systems, DOR, MoDOT, Highway Patrol, and Office of the State Courts Administrator to track DWI arrests through prosecution and sentencing) and train local law enforcement clerks and court clerks to use the system
10. Incorporate, where possible, recommendations made at the 2001 BAC Testing Symposium
11. Increase participation in statewide multijurisdiction mobilization enforcement efforts
12. Support selective enforcement efforts to address young drinking drivers by funding underage drinking enforcement projects statewide
13. Support one additional DWI traffic unit with a local law enforcement agency (there are currently two units funded through the highway safety division)

### **Prosecution/Adjudication**

1. Train judges, prosecutors and law enforcement personnel on local/national DWI issues utilizing the expertise of the Missouri Office of Prosecution Services, Department of Revenue, and the National Drug Court Institute
2. Provide funding to send prosecutors and judges to training that will increase their knowledge about DWI issues and improve prosecution techniques
3. Provide continued funding for the statewide Traffic Safety Resource Prosecutor whose job it is to provide training and technical support for prosecutors in Missouri
4. Continue to provide funding for the MADD Court Monitoring project in selected counties and municipalities in order to increase conviction rates
5. Provide additional training to DWI court teams from across the state

6. Provide equipment and training to enhance the DWI Tracking System (DWITS)
7. Provide motivational speakers for judicial personnel during training events such as their annual municipal judges and court clerks conference
8. Provide an integrated system, a web link and/or specifications to local law enforcement agencies that will allow them to access the DWITS and enter DWI arrest information that can be tracked through prosecution and sentencing

### **Technology**

1. Continue to provide DWITS enhancements: specs for program linkages; development of reports as needed by the users; and training for users of the system
2. Support the efforts of the Missouri Safety Center Breath Instrument Training Laboratory to calibrate and repair breath test instruments in order to improve their reliability, and reassign instruments as needed
3. Provide funding to support projects that will expedite processing of DWI offenders

### **Hazard Elimination** (Section 154 Open Container Transfer Funds)

Within the provisions of SAFETEA-LU, states were required to pass and enforce a qualifying Open Container law or be subject to a 3% transfer of their federal aid highway funds. These funds were required to be diverted to either alcohol countermeasure safety programs (within the Highway Safety Division) or be utilized for qualifying Hazard Elimination projects. Some of the alcohol countermeasures identified within this Plan are supported by Section 154 transfer funds. A portion of the funding has been retained for Hazard Elimination efforts consisting of installation of 3-strand guard cable on major roadways to prevent crossover crashes – one of the most serious types of crashes occurring in Missouri.

The highway safety division has also been participating in a 3-year (2006-2008) joint project with the Highway Patrol to outfit all patrol road vehicles with the latest technology video cameras. Approximately \$1.3 million has been allocated for each of the three years to purchase the cameras. Video cameras have long been accepted as an effective prosecution tool to assist officers during the trials of suspected impaired drivers.





# OCCUPANT RESTRAINTS



## RESTRAINT USE

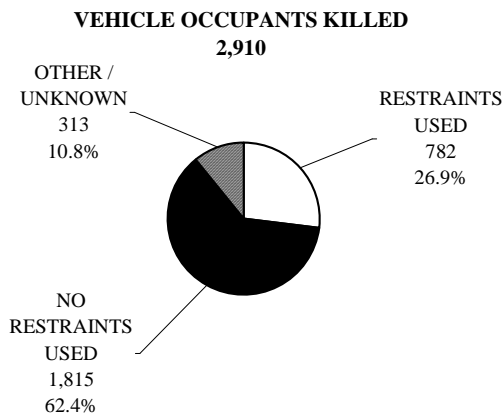
Traffic crashes are the leading cause of death in the United States. It is well recognized that one of the best means of defense in a crash is to be protected by a seat belt or a child safety seat. Increasing safety belt use has tremendous potential for saving lives, preventing injuries, and reducing the economic costs associated with traffic crashes. For many years, motor vehicle manufacturers have been required to install seat belts in their vehicles, so the vast majority of vehicles on the roads today have these types of safety devices installed. The overwhelming percentage of people killed or seriously injured in 2004-2006, in all probability, had a seat belt available for use:

- 3,483 killed – 83.5% had a seat belt available;
- 25,632 seriously injured – 85.7% had a seat belt available.

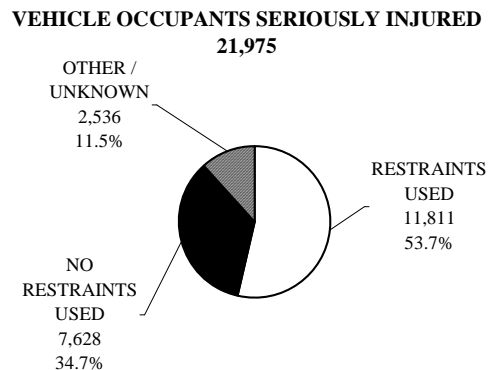
A substantial number of occupants killed in 2004-2006 Missouri traffic crashes were not wearing seat belts compared to those injured and not injured. In fatal crashes, **68.6% of the people who died were not buckled up** (crashes where usage was known). Of those seriously injured, 38.5% were not belted. Conversely, of those not injured, 585,914 were wearing a seat belt.

Note: The following charts include the percent of fatalities with unknown seat belt usage.

### 2004-2006 MISSOURI TRAFFIC FATALITIES AND DISABLING INJURIES SEAT BELT USAGE



Data includes Child Safety Seats



Data includes Child Safety Seats

Seat belt use dramatically reduces a person’s chance of being killed or seriously injured in a traffic crash. Of the drivers involved in 2004-2006 crashes, 1 in 33 was injured when they failed to wear their seat belt. But when they were wearing a seat belt, their chances of being injured in the crash were 1 in 1,231. When examining driver deaths, the differences are much more significant. Drivers had a **1 in 2.5** chance of being **killed** if they were **not wearing a seat belt**; but that chance dropped dramatically to only **1 in 7** if the driver was **wearing a seat belt**.

## Seat Belt Usage Among High School Students



While 68.6% of the dead occupants were not buckled up, lack of seat belt use becomes even more significant when we segregate young people. When just looking at young people between the **ages of 15 through 20, 78.3% of those who died were not buckled up.**

The Highway Safety Division had long been concerned with the lack of seat belt usage among young drivers and passengers. Unfortunately, there was no survey data to provide an established use rate for this age group. In 2003, parameters were developed to conduct an observational safety belt usage survey for these teens. It was determined that the most effective way to reach this very targeted age group was to survey specific high schools throughout the state.

Several guiding principles served as the underlying basis for the sampling plan:

1. The individual public high school would be the basic sample unit at which seat belt usage observations would be made.
2. The safety belt usage rates of high school students would be computed for each of the ten MoDOT districts in the state.
3. The number of schools selected from each MoDOT district would be proportionate to the number of schools in that district in comparison to the state total of 496 public high schools
4. The high schools within each district would be selected in their descending order of student enrollment to maximize the number of high school students from each MoDOT district.

One hundred-fifty high schools were selected for the survey in 92 counties (80% of the 115 counties in Missouri). Data were collected in April and/or May. Observations were conducted Monday through Friday. Two instruments were used to collect the data. One instrument focused on the vehicle and the driver while the other targeted the front seat outboard passenger and other occupants in the vehicle. A detailed report of all findings is kept on file at the Highway Safety office.

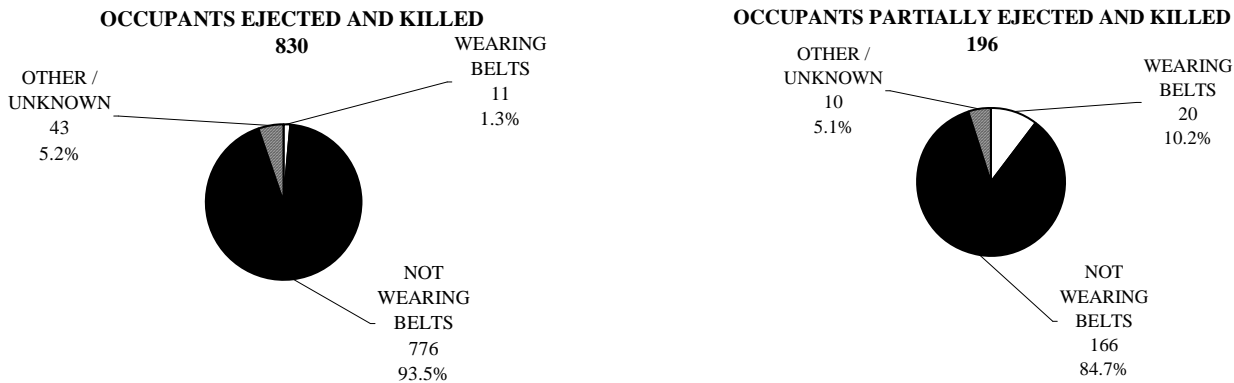
Results of the first survey in 2004 indicated only a 53.5% usage rate for the high school students; results for 2005 showed an increase to 56.4%; while the 2006 survey recorded another small but steady increase to 57.9%.

## Ejections

The possibility of death and serious injury dramatically increases in cases where the person is ejected from the vehicle at the time of the crash. One of the benefits of being belted is it increases the probability of the person staying in the vehicle and being protected by the vehicle passenger compartment. In known cases of those occupants killed who were totally ejected from the vehicle, 98.2% were not wearing seat belts and of those partially ejected, 87.8% were not belted. Of the occupants not ejected from their vehicles, 52.5% failed to wear their seat belts.

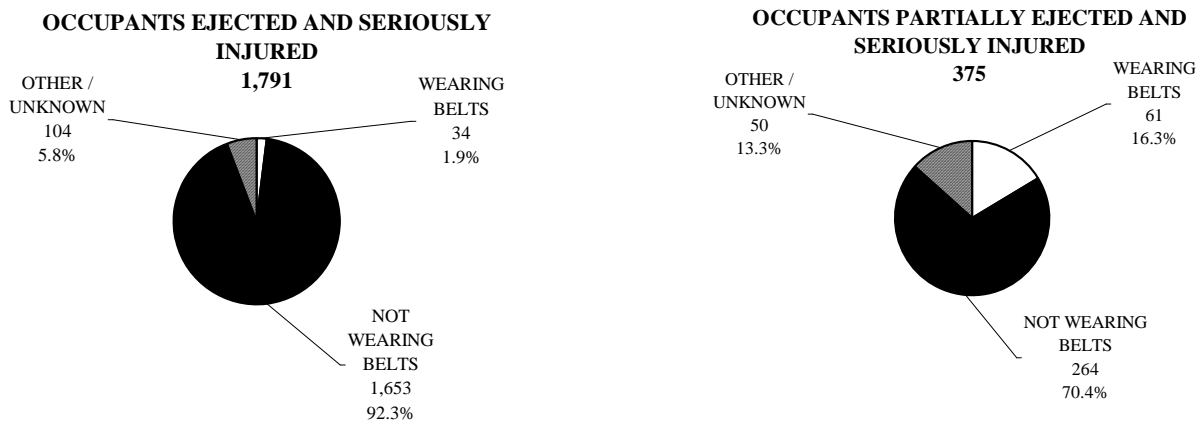
Note: The following charts include the percent of fatalities with unknown seat belt usage.

### 2004-2006 MISSOURI TRAFFIC FATALITIES AND DISABLING INJURIES SEAT BELT USAGE



In known cases of those occupants seriously injured who were totally ejected from the vehicle, 97.2% were not wearing seat belts and of those partially ejected, 80.2% were not belted. Of the occupants not ejected from their vehicles, only 32.4% failed to wear their seat belts.

Note: The following charts include the percent of seriously injured with unknown seat belt usage.



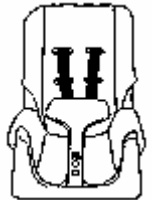
## Very Young Passengers

While Missouri must continue to promote the use of seat belts, particular attention must be paid to increasing the use of specialized restraint devices when transporting young children.

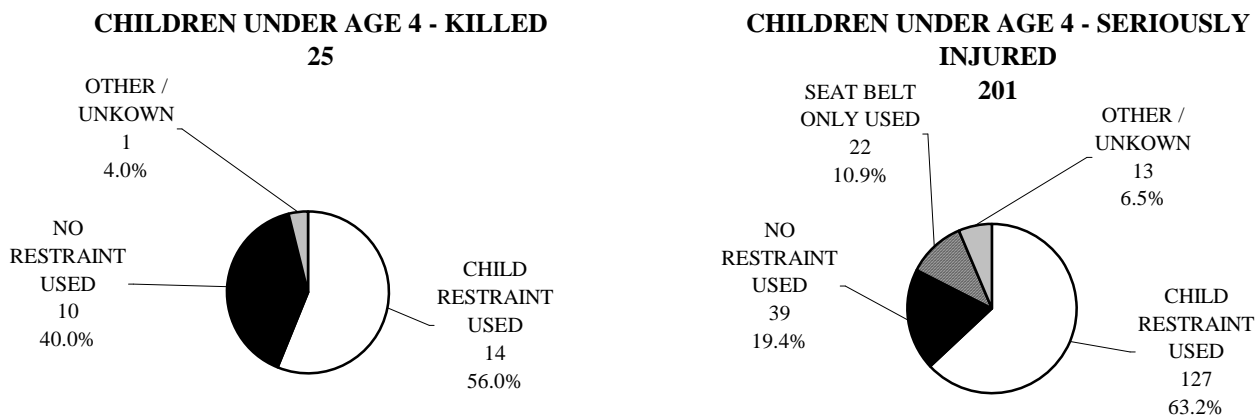
According to the National Highway Traffic Safety Administration (NHTSA), approximately 7,500 lives have been saved by the proper use of child restraints during the past 20 years. Yet, motor vehicle crashes still remain the number one killer of children ages 4 to 14 in America. The reason? Too often it is the improper use or non-use of child safety seats and booster seats.

### Children Birth through Age Three – Child Safety Seats

In 2004-2006, 25 children under the age of 4 were killed in a motor vehicle; 40.0% were not using any type of restraint device (in known cases). There were 201 children under 4 seriously injured. In known cases, 19.4% were not using any type of restraint device and 10.9% were in an adult seat belt.

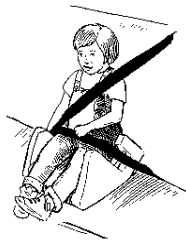


### 2004-2006 MISSOURI TRAFFIC FATALITIES AND DISABLING INJURIES RESTRAINT DEVICE USAGE – CHILDREN UNDER AGE 4



### Children Age 4 through 7 – Booster Seats

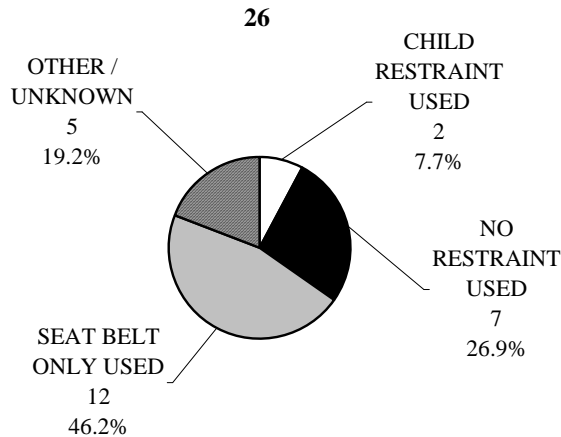
Research indicates that when children are graduated to a safety belt too soon, they are much more likely to suffer serious, disabling injuries due to “seat belt syndrome” if they are in a crash. Therefore, during the 2006 legislative session, Missouri’s child passenger restraint law was strengthened to require children ages 4 through 7 (unless they are 4’9” tall or weigh more than 80 pounds) to be secured in a booster seat (or child safety seat if appropriate for their height and weight). The law became effective August 28, leaving only four months in 2006 to capture data on booster seat usage. Given that it can take up to six months before the general public is aware of a new law and has put it into practice, we will not evaluate booster seat usage for 2006. We will begin to capture and analyze crash data on this age group beginning in 2007 to determine whether we observe a trend that is indicative of a reduction in deaths and serious injuries.



In 2004-2006, 26 children 4 through 7 years of age were killed in a motor vehicle; in known cases, 26.9% were not using any type of restraint device. Another 307 children within this age group were seriously injured – 27.7% were not secured in any type of restraint device, 12.7% were in a child restraint, and 42.0% were in a seat belt.

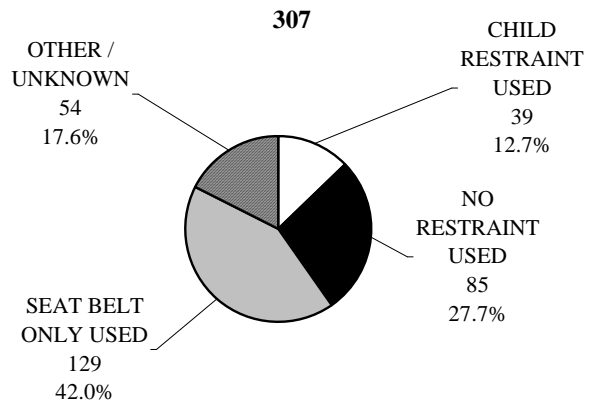
### 2004-2006 MISSOURI TRAFFIC FATALITIES AND DISABLING INJURIES RESTRAINT DEVICE USAGE – CHILDREN 4-7 YEARS OF AGE

**CHILDREN 4-7 YEARS OF AGE - KILLED**



Unknown data not included

**CHILDREN 4-7 YEARS OF AGE - SERIOUSLY INJURED**



Unknown data not included

### Benchmarks

- A. 2% increase in the statewide safety belt usage rate (2006 usage was 75.1%)
- B. 2% increase in the teen young driver safety belt usage rate (2006 usage was 57.9%)
- C. 2% increase in the child occupant restraint usage rate (2006 usage was 82.8%)
- D. 2% increase in the CMV operator safety belt usage rate (2006 usage was 65.7%)
- E. 100% correct use of child safety seats by parents/caregivers upon exiting checkup events or fitting stations
- F. Assure there is an adequate base of certified Child Passenger Safety Technicians and Instructors within the state – 885 certified Technicians; 37 certified Instructors

### Performance Measures

1. Ongoing analysis of the traffic crash data in Missouri will serve as the means to measure progress toward the benchmarks.
2. Properly administered and consistent occupant restraint usage surveys will be conducted statewide through grants with the Missouri Safety Center. Usage rates will be monitored to analyze the effectiveness of our enforcement and awareness mobilizations and our educational campaigns.
3. Track the number of CPS technicians and instructors entered into the database maintained by the highway safety division.

## Strategies

1. Conduct NHTSA-approved statewide observational safety belt survey in May/June (pre, peak, and post surveys in conjunction with enforcement mobilizations and public awareness campaigns)
2. Conduct annual teen statewide safety belt enforcement and public awareness campaign in February/March followed by the teen observational safety belt survey in March/April
3. Conduct annual statewide observational child safety seat survey in March/April
4. Produce, promote and distribute educational materials addressing: occupant protection laws; importance of wearing safety belts all the time; properly installing child safety seats; booster seat use; air bag safety
5. Establish a state CPS Advisory Committee and implement their recommendations where appropriate
6. Conduct 12 certified Child Passenger Safety Technician classes statewide
7. Certify an additional 4 CPS Instructors
8. Maintain a statewide computer list-serve of CPS technicians and instructors
9. Support child safety seat checkup events and educational programs through local law enforcement agencies, fire departments, Safe Communities, hospitals and health care agencies, safety organizations such as Safe Kids, and the Highway Safety Division
10. Work with partners and with the media to garner support for annual CPS Week in September
11. Provide child safety seats/booster seats and supplies to fitting stations for distribution to low income families (note: fitting stations must meet guidelines established by Missouri's CPS Advisory Committee and must be listed on the NHTSA web site <http://www.nhtsa.dot.gov/people/injury/childps/CPSFittingStations/CPSinspection.htm> )
12. Promote the *Saved by the Belt* survivor program; maintain a database of survivors to contact those who are willing to speak publicly about their life-saving experience
13. Conduct Selective Traffic Enforcement Program (STEP Waves) with State Patrol and local law enforcement agencies which will be augmented with collateral public information and awareness efforts such as press releases, observational surveys, and educational programs utilizing the *Click It or Ticket* safety belt campaign message
14. Conduct paid media efforts and work toward continual increases in earned media efforts
15. Develop educational pieces to heighten awareness concerning the life-saving and economic benefits derived from primary safety belt laws and enhanced child safety seat laws
16. Conduct youth safety belt selective traffic enforcement efforts statewide (*Operation Safe Teen*) coupled with press releases, radio spots, and materials targeting young drivers
17. Promote the *Never Made It* and *Battle of the Belt* youth campaigns; modify or enhance campaigns as needed to keep a fresh approach for the teen audience
18. Develop youth safety belt public awareness materials with input from young drivers
19. Educate youth on the importance of safety belts through programs such as Team Spirit Leadership Training & Reunion, Think First, and the Young Traffic Offenders Program
20. Coordinate the production of paid media messages and public services announcements



# YOUNG DRIVERS

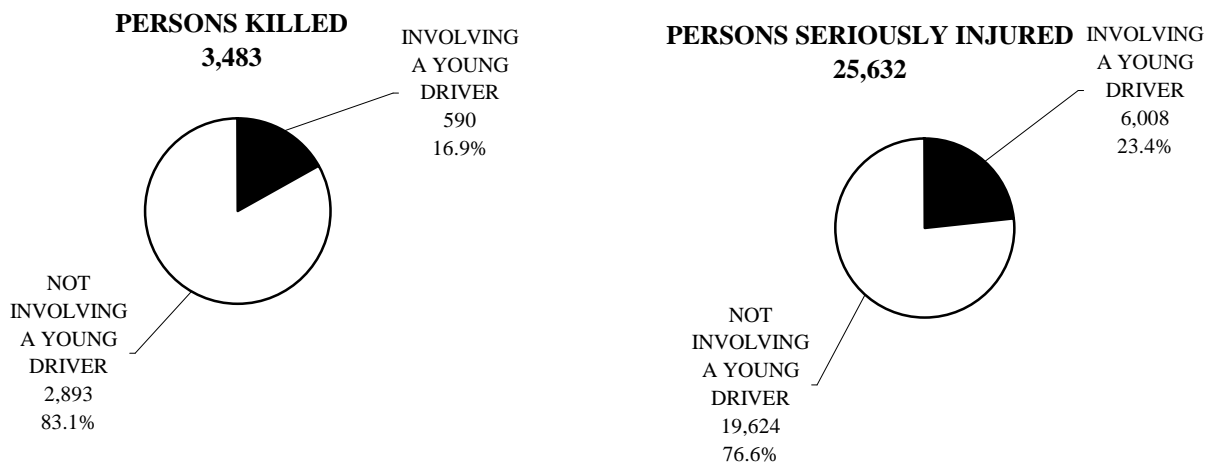


## Background

Young drivers are categorized as those ages 15 through 20 years. These young drivers are substantially over-involved in Missouri's traffic crash experience. There were 406,292 persons under the age of 21 licensed in Missouri in 2005, accounting for **barely 9.5%** of the 4,281,710 persons licensed in the State. The percentage of young licensed drivers doesn't vary substantially year to year although the percentage did drop from 10.5% in 2005).

Of all 2004-2006 fatal and disabling injury crashes in Missouri, 22.0% involved a young driver. In 2004-2006, 590 persons were killed and 6,008 were seriously injured in traffic crashes involving a young driver of a motorized vehicle

## 2004-2006 MISSOURI YOUTH INVOLVED TRAFFIC FATALITIES AND DISABLING INJURIES



NOTE: data for persons killed and seriously injured involving a young driver does not include young drivers of ATV's, bicycles, farm implements, construction equipment, other transport devices, and unknown vehicle body types.

Several factors work together to make this age group so susceptible to crashes:

- **Inexperience:** All young drivers start out with very little knowledge or understanding of the complexities of driving a motor vehicle. Like any other skill, learning to drive well takes a lot of time. Technical ability, good judgment and experience are all needed to properly make the many continuous decisions—small and large—that add up to safe driving. This is confirmed by the larger percentage of single-vehicle fatal crashes involving young drivers where the vehicle frequently leaves the road and overturns or hits a stationary object like a tree or pole.

- Risk-taking behavior and immaturity: Adolescent impulsiveness is a natural behavior, but it results in poor driving judgment and participation in high-risk behaviors such as speeding, inattention, drinking, and failing to wear a safety belt. Peer pressure also often encourages risk taking. In general a smaller percentage of young drivers in Missouri wear their safety belts compared to other drivers (teen safety belt usage rate for 2006 was 57.9% compared to the overall usage rate of 75.1%).
- Greater risk exposure: Young drivers often drive at night with other friends in the vehicle. During night driving, reaction time is slower since the driver can only see as far as the headlights allow. More teen fatal crashes occur when passengers—usually other teenagers—are in the car than do crashes involving other drivers. Driving with young, exuberant passengers usually poses a situation of distraction from the driving task. Both of these factors increase crash risk.

The top 5 contributing circumstances attributable to young drivers were:

- |                                       |                               |
|---------------------------------------|-------------------------------|
| 1. Inattention                        | 3. Failed to Yield            |
| 2. Driving Too Fast<br>for Conditions | 4. Following too Close        |
|                                       | 5. Improper lane usage/change |



### Young Drinking Drivers

When analyzing statistics involving young drinking drivers, it is all the more important for us to keep in mind that drinking is an illegal behavior for those under 21 years of age. In Missouri, we have a “zero tolerance” law for people under 21 that sets their illegal blood alcohol content level at .02 percent (considerably lower than the .08 BAC level for adults).

In 2004-2006, there were 3,514 drivers whose consumption of alcohol contributed to the cause of a fatal or disabling injury crash. Of those drinking drivers, 562 or 16.2% were under the legal drinking age of 21.

In 2004-2006, a total of 658 drinking drivers were involved in crashes where one or more people were **killed**. In known cases, 96 (14.7%) of those drinking drivers were 15-20 years of age. In 2004-2006, 799 (22.9%) of the fatalities and 3,896 (15.2%) of the disabling injuries involved a drinking driver. Of these, 108 (13.5%) of the fatalities and 694 (17.8%) of the disabling injuries involved an underage drinking driver.

In 2004-2006, **673 young drivers** of motorized vehicles were involved in 643 fatal traffic crashes where 750 people died. In those crashes, 96 or 14.3% of the young drivers were drinking and driving. **In other words, one of every 7 young drivers involved in fatal crashes was drinking alcohol and his / her intoxicated condition contributed to the cause of the crash.**



## Benchmarks

- A. 2% decrease in fatalities and disabling injuries resulting from crashes involving young drivers compared to the previous 3-year period (2004-2006 = 6,598).
- B. 2% decrease in fatalities and disabling injuries resulting from crashes involving young drinking drivers compared to the previous 3-year period (2004-2006 = 802).

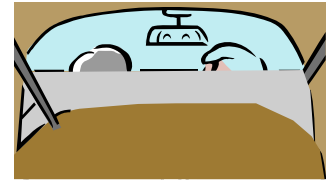
## Performance Measures

1. Ongoing analysis of the traffic crash data in Missouri will serve as the means to measure progress toward the benchmarks. We will monitor crashes involving drivers within the age group affected by Missouri's graduated drivers' licensing law, which became effective January 1, 2001. Increases and/or decreases in the percentage of licensed young drivers will also be monitored. Effective August 28, 2006, changes to Missouri's GDL law were implemented. The number of supervised driving hours was increased from twenty to forty (ten of which must take place at night), and passengers (outside of the immediate family) under age 19 were limited to one for the first six months and limited to three during the following six months.
2. Monitor legislative changes that impact young drivers to determine whether they have had any significant bearing on crashes involving intermediate licensees.

## Strategies

1. Continue support for youth prevention and education programs to include Team Spirit Leadership Conferences; Team Spirit Reunion; Think First Programs (school assemblies, Young Traffic Offenders Program, and the corporate program); *Every 15 Minutes*; DWI docudramas; CHEERS university-based designated driver program
2. Continue statewide distribution of *Safe Driving for Life, A Parent's Guide to Teaching Your Teen to Drive* through DOR offices and Highway Patrol driver examination stations
3. Begin comprehensive review of young driver educational programs to determine the best and most cost-effective way to reach the largest number parents who are teaching teens to drive and teens who are learning to drive
4. Continue to update, as needed, materials and web site information on young, high-risk drivers; develop materials that are especially appealing to young drivers
5. Include information on the GDL law in highway safety materials, on the web site, and within presentations
6. Support projects designed to prevent underage alcohol purchase, apprehend minors attempting to purchase alcohol, and provide a physical enforcement/intervention presence (e.g., Badges in Business, Server Training, SMART web-based server training, Party Patrol, selective enforcement, compliance checks, and multi-jurisdiction enforcement teams)
7. Conduct an annual safety belt survey of young drivers and their passengers
8. Provide funding to support college/university prevention programs (Partners In Prevention, Partners In Environmental Change, CHEERS Designated Driver program) that focus on the development and implementation of UMC's *Drive Safe. Drive Smart* campaign
9. Encourage strict enforcement of Missouri laws targeting young drivers (e.g., Graduated Drivers License, Zero Tolerance, Abuse and Lose)
10. Incorporate findings from Teen Focus Groups to enhance public information efforts
11. Initiate 1-866-MustB21 – a statewide underage drinking tipline to report parties involving underage drinking, plans to purchase alcohol for underage persons, and sales to minors





## **OLDER DRIVERS – 65 YEARS OF AGE AND OVER**

### **Background**

Our population is aging and older adult drivers are increasing their exposure (miles driven/year) on the highways. Fatality rates per vehicle miles traveled have been falling for society as a whole, but older drivers' rates are increasing (NHTSA, 2005). According to the 2000 Census, Missouri ranked 14<sup>th</sup> nationally with 13.5% of the population age 65 or older. A 62% increase is expected in this age group between 2005 and 2025, from 774,000 to 1,258,000.

Being able to go where we want and when we want is important to our quality of life. Personal mobility is often inextricably linked to the ability to drive a car. However, as we age our ability to drive a motor vehicle may be compromised by changes in vision, attention, perception, memory, decision-making, reaction time, and aspects of physical fitness and performance.

A wide variety of age-related decreases in physical and mental abilities can contribute to decreased driving ability, as implied by reports that elderly drivers drive less as they age, while collisions per mile driven increase. Drivers 65 and older who are injured in automobile crashes are more likely than younger drivers to die from their injuries. Accordingly, several reports have noted that per mile driven, older drivers experience higher crash fatality rates than all but teenage drivers. Furthermore, as drivers age past 65, fatality rates multiply as indicated by reports that fatal crash rates for drivers 85 years and older are nearly three times that of drivers aged 55 through 74.

Older drivers are a major concern because they are more at risk of dying in a traffic crash than younger drivers. This is due, in large part, to the fragility of older individuals. Fragility and inflexibility – natural occurrences of aging – cause older drivers to be more easily injured. These conditions cause them to be less likely to survive their injuries. Certain progressive illnesses, such as osteoporosis, atherosclerosis, Alzheimer's disease and macular degeneration, eventually cause physical weakness and/or require driving retirement due to the progressive nature of these diseases. For this reason, NHTSA lists older driver safety as a priority area for research, education, and rulemaking in the upcoming decade.

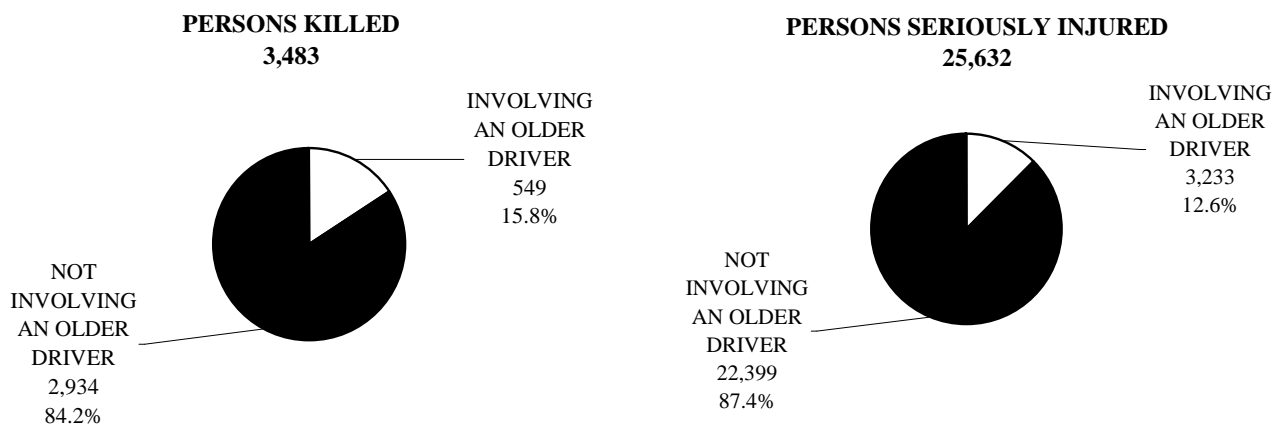
The good news is that older drivers who keep track of changes in their eyesight, physical fitness and reflexes may be able to adjust their driving habits so they stay safer on the road. The Missouri Department of Transportation has also begun implementing numerous countermeasures to address visibility issues with older drivers. Roadway markings and highway signs have been modified to utilize material and paint with higher retro-reflectivity. Advance street name signs and wrong-way arrows on ramps have been installed on the highways. Center and edgeline rumble strips and rumble stripes have been installed with this highly reflective material and the width of the stripes have been increased. Interstate mile markers have been redesigned for higher visibility. Signs have been revamped to incorporate a type font that is more clearly seen.

In relation to all other licensed drivers in the State, drivers 65 and over are almost equally involved in Missouri's traffic crash experience; however, older drivers do not travel as many miles or as frequently as other drivers. This may be due, in part, to the fact that older drivers tend to self-regulate. As their nighttime vision begins to deteriorate, they begin to restrict their driving to daylight hours. If they are uncomfortable or frightened driving in unfamiliar surroundings, they limit their driving to locations that are well known to them.

In 2006, there were 638,057 people licensed in Missouri who were age 65 or over. They accounted for 14.9 percent of the 4,281,710 persons licensed in Missouri.

Of all 2004-2006 fatal and disabling injury crashes in Missouri, 12.3% involved an older driver. In 2004-2006, 549 persons were killed and 3,233 were seriously injured in traffic crashes involving an older driver.

### OLDER DRIVER INVOLVEMENT IN 2004-2006 MISSOURI TRAFFIC CRASHES



## **Benchmarks**

- A. 2% decrease in number of fatalities and disabling injuries resulting from crashes involving older drivers in comparison to the previous 3-year total (2004-2006 = 3,782).

## **Performance Measures**

1. We will continue to track crashes involving older drivers and assess specific contributing factors that occur with more frequency in these crashes.

## **Strategies**

1. Continue Mature Driving Task Force meetings directed at developing countermeasures to reduce crashes involving older drivers
2. Develop and distribute public informational materials to assist older drivers and their families
3. Conduct *Drive Well* and *Car Fit* NHTSA training sessions in selected regions of the state
4. Implement strategies outlined in *Missouri's Blueprint for Safer Roadways*
5. Design an assessment tool for older drivers which can be used by driver examiners
6. Train driver examiners and driver license personnel to identify and assess unfit drivers
7. Train law enforcement personnel to identify signs of impairment specific to older drivers
8. Identify and promote self-assessment tools to enable older drivers to check their own driving abilities

# COMMERCIAL MOTOR VEHICLES



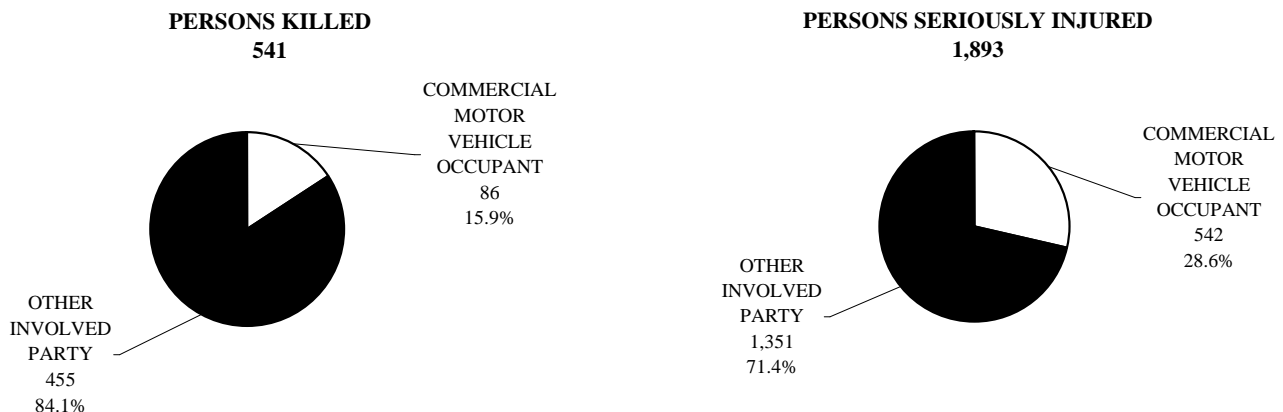
## Background

Large trucks have blind spots – identified as *No Zones* – around the front, back and sides of the truck, which make it difficult for the driver to see. It is critically important that other drivers not hang out in the *No Zone* of a commercial vehicle. Because most commercial motor vehicles (CMVs) are large transport devices that are much heavier than the normal vehicle population, they cause greater amounts of personal injury and severity to the occupants of vehicles with which they collide. When analyzing the types of persons killed or injured in commercial motor vehicles crashes, the great majority were not the commercial motor vehicle drivers or passengers.

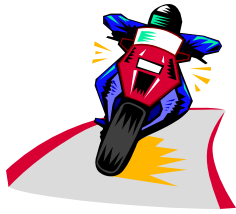
Commercial motor vehicles are involved in a substantial number of traffic crashes in Missouri, especially those resulting in the death of one or more persons. In 2004-2006, there were 524,619 traffic crashes in the State. In these crashes, 40,574 or 7.7% involved at least one commercial motor vehicle. Of the 3,094 fatal crashes, however, 447 or 14.4% involved at least one commercial motor vehicle.

Of those killed in 2004–2006 CMV crashes, 86 (15.9%) were CMV occupants but 455 (84.1%) were other parties in the incident. When examining disabling injuries, 542 (28.6%) were CMV occupants while 1,351 (71.4%) were some other party.

## 2004-2006 MISSOURI COMMERCIAL MOTOR VEHICLE INVOLVED TRAFFIC CRASHES



The Motor Carrier Safety Assistance Program (MCSAP) is a federal grant program that provides financial assistance to states to reduce the number and severity of accidents and hazardous materials incidents involving commercial motor vehicles. The goal of the MCSAP is to reduce CMV involved crashes, fatalities, and injuries through consistent, uniform, and effective CMV safety programs. Investing grant monies in appropriate safety programs will increase the likelihood that safety defects, driver deficiencies, and unsafe motor carrier practices will be detected and corrected before they become contributing factors to crashes. The Highway Safety Division administers MCSAP, but the MCSAP program operates under a separate federal grant. Benchmarks and strategies are outlined within the MCSAP Plan, which is submitted to the Federal Highway Administration. .



# MOTORCYCLE CRASHES



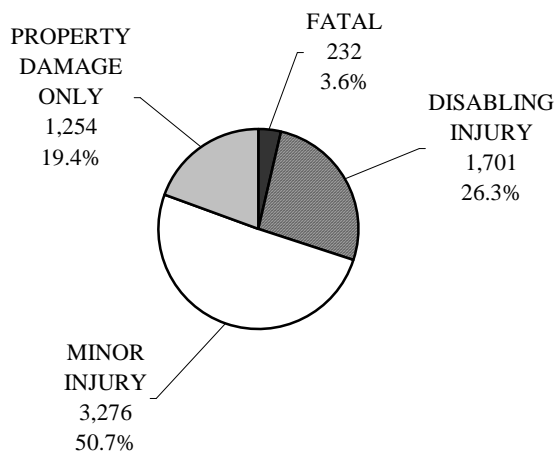
## Background

A responsible motorcyclist must think about the consequences of their riding behavior in traffic and accept personal responsibility for the results of their decisions and actions, as well as develop good skills and judgment. The motorcyclist must consider their personal margin of safety or margin for error – how much extra time and space they need given their skill level.

Although motorcycle traffic crashes do not occur with great frequency in Missouri, they usually result in deaths or disabling injuries at a considerably greater rate than other traffic crashes. In the 2006 national rankings of the 50 States, DC and Puerto Rico, Missouri ranked 8<sup>th</sup> of the ten best in the nation – Missouri's motorcycle helmet law has undoubtedly had an impact on the relatively low motorcycle fatality rate per 100,000 population.

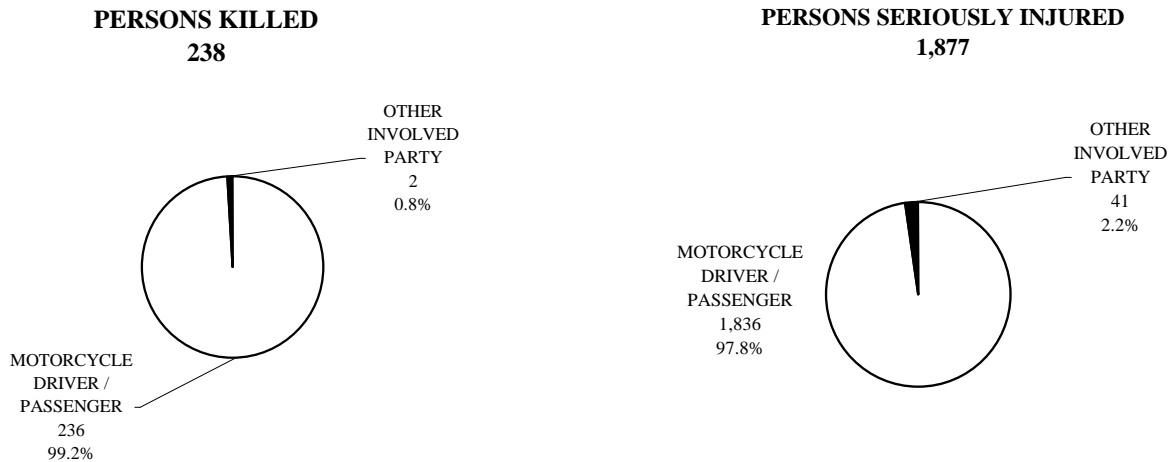
Of the 524,619 traffic crashes in 2004-2006, 0.6% resulted in a fatality and 3.7% involved someone being seriously injured in the incident. During the same period, there were 6,463 traffic crashes involving motorcycles. In these incidents, 3.6% (232) resulted in a fatality and 26.3% (1,701) resulted in someone being seriously injured in the crash. These figures demonstrate the overrepresentation of motorcycles in fatal and serious injury crashes.

## 2004 – 2006 MISSOURI MOTORCYCLE INVOLVED CRASHES 6,463



**In most instances, motorcycle drivers and/or their passengers are the ones killed and seriously injured when they are involved in a traffic crash.** Of the 238 people killed in motorcycle-involved crashes, 99.2% (236) were motorcycle riders and 0.8% (2) were some other person in the incident. Of the 1,877 seriously injured, 97.8% (1,836) were the motorcycle riders while only 2.2% (41) were some other person in the incident.

**2004 – 2006 MISSOURI MOTORCYCLE INVOLVED TRAFFIC CRASHES  
(Person Involvement)**



A significant number of motorcyclists and their passengers killed and seriously injured in Missouri traffic crashes are young. Of those killed, 6.8% were under the age of 21 and 8.6% of those seriously injured were in this age group.

**2004-2006 MISSOURI MOTORCYCLE DRIVERS AND PASSENGERS KILLED AND SERIOUSLY INJURED IN MISSOURI TRAFFIC CRASHES  
(Age by Personal Injury Severity)**

Age	KILLED			SERIOUSLY INJURED			TOTAL	
	Number	%	Without Helmets	Number	%	Without Helmets	Number	%
00 - 20	16	6.8%	6	158	8.6%	24	174	8.4%
21 - 40	105	44.5%	16	727	39.6%	63	832	40.3%
41 - 60	103	43.6%	13	825	44.9%	35	928	44.9%
61 and Over	12	5.1%	0	119	6.5%	1	131	6.3%
Unknown age	0	0.0%	0	7	0.4%	0.0%	7	0.3%
<b>Total</b>	<b>236</b>	<b>100.0%</b>	<b>35</b>	<b>1836</b>	<b>100.0%</b>	<b>123</b>	<b>2065</b>	<b>100.0%</b>

## Benchmarks

- A. 2% reduction in fatalities and disabling injuries resulting from crashes involving motorcycles in comparison to the previous 3-year period (2004-2006 = 2,115)

## Performance Measures

1. Missouri's motorcycle safety program (administered by the Missouri Safety Center at the University of Central Missouri) focuses on crash prevention, which is the area that has the greatest potential to offer a safety payoff for motorcyclists. MoDOT supports effective state rider education and training programs and encourages proper licensing for all motorcyclists. We will analyze feedback from the *Ride Safe Missouri* training program to evaluate progress toward the benchmark.

## Strategies

1. Continue to provide motorcycle rider education statewide in order to train 4500 riders annually
2. Conduct a minimum of two RiderCoaches (Instructor) Preparation courses per year over the next five years in order to train and expand base of certified motorcycle RiderCoaches
3. Actively participate in Missouri's Motorcycle Safety Committee
4. Implement, as feasible, strategies identified in the "Strategic Planning Final Report," August 30, 2006, developed by the Missouri Motorcycle Safety Committee which includes:
  - ➔ Distribute NHTSA's *Fake Helmets, Unsafe on Any Head* to law enforcement agencies, conduct training through LETSAC on detecting the use of non-compliant helmets, and encourage aggressive enforcement of Missouri's helmet law
  - ➔ Distribute NHTSA's *Detecting DWI Motorcyclists* to law enforcement agencies, conduct training through LETSAC on detecting DWI motorcyclists, and encourage aggressive enforcement of while riding while impaired
  - ➔ Continue to work with eligible entities seeking approval as providers to expand motorcycle training capacity
  - ➔ Continue to search for suitable locations for permanent training sites to expand motorcycle training capacity in order to accommodate training within 50 miles of any Missouri resident
  - ➔ Continue to encourage motorcycle groups and motorcycle dealerships to promote formal motorcycle rider education
  - ➔ Expand upon the motorcycle public information and education campaigns – impaired riding; motorists' awareness of motorcyclists; proper protective gear – to include billboards, print materials (pamphlets and posters), radio spots, and television spots; distribute print materials statewide through the DOR field offices, MSHP examination stations, dealerships, etc.
  - ➔ Work toward assuring that EMS personnel receive accident scene management training specific to motorcycle crashes
  - ➔ Work with MoDOT to evaluate signage that may be of safety benefit to motorcyclists entering work zones and where conditions are particularly hazardous to motorcycles





# CRASHES INVOLVING SCHOOL BUSES



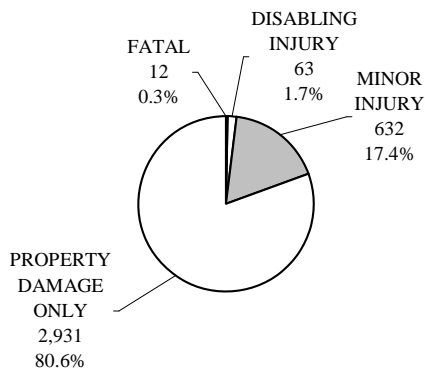
## Background

Although school buses provide one of the safest modes of transportation, there are still school bus related injuries and, unfortunately, some fatalities every year. Some of these are due to crashes with other vehicles while others are due to the school bus striking a pedestrian or bicyclist. The responsibility borne by school bus drivers is considerable.

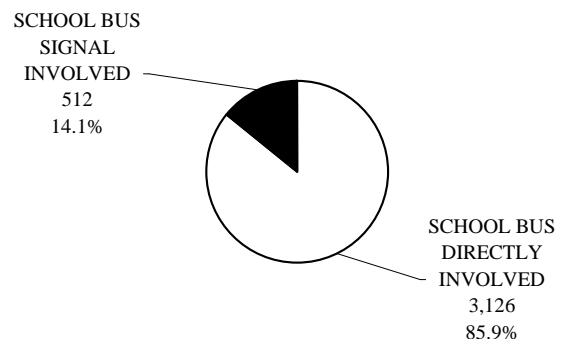
A vehicle must meet safety standards that are appropriate for its size and type because different types of vehicles perform differently in a crash. For example, because a large school bus is heavier than most other vehicles, its weight can protect its occupants from crash forces better than a light vehicle such as a passenger car. The passive protection engineered into large school buses, combined with other factors such as weight, provides passenger protection similar to that provided by safety devices in passenger cars. Both types of vehicles protect children from harm but in different ways.

School buses are not involved in a large number of traffic crashes in Missouri, but they are significant due to their potential for causing death and serious injury to young children. Of all 2004-2006 Missouri traffic crashes, 0.7% a school bus or school bus signal. In 85.9% of the school bus crashes, a school bus was directly involved in the crash and in 14.1% of the crashes, no school bus was directly involved but a school bus signal was involved.

**2004-2006 MISSOURI SCHOOL BUS/SCHOOL BUS SIGNAL INVOLVED TRAFFIC CRASHES**

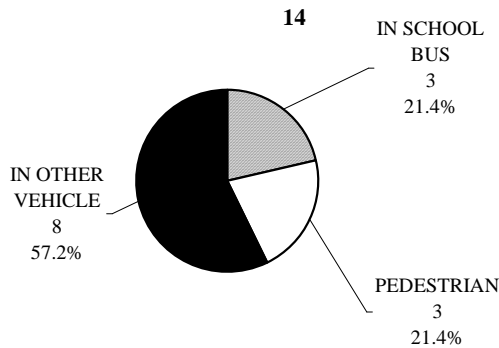


**SCHOOL BUS INVOLVEMENT TYPE  
2004-2006 MISSOURI SCHOOL BUS INVOLVED TRAFFIC CRASHES**

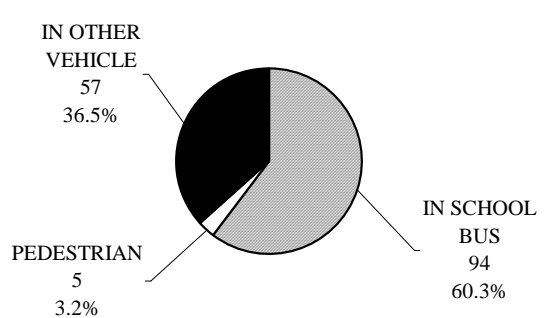


Of the 14 persons killed during 2004-2006 in crashes involving school buses, 3 were actual occupants of the school bus, 3 were pedestrians, and the remaining 8 were some other person in the incident. Of the 156 persons seriously injured, 94 were occupants of the school bus, 5 were pedestrians and 57 were some other person in the incident.

**2004-2006 SCHOOL BUS/BUS SIGNAL INVOLVED  
CRASHES BY LOCATION OF PERSONS  
PERSONS KILLED**



**2004-2006 SCHOOL BUS/BUS SIGNAL INVOLVED  
CRASHES BY LOCATION OF PERSONS  
PERSONS SERIOUSLY INJURED**



A significant number of persons killed or seriously injured in crashes involving school buses are young.

**PERSONS KILLED AND SERIOUSLY INJURED IN 2004-2006  
SCHOOL BUS/BUS SIGNAL INVOLVED TRAFFIC CRASHES  
(Age by Personal Injury Severity by Involvement)**

Age	IN BUS		PEDESTRIAN		IN OTHER VEHICLE	
	Killed	Disabling Injuries	Killed	Disabling Injuries	Killed	Disabling Injuries
0-4	0	0	0	0	0	2
5-8	0	27	3	2	0	1
9-20	1	43	0	1	1	16
21+	2	24	0	2	7	38
Unknown	0	0	0	0	0	1
<b>Total</b>	<b>3</b>	<b>94</b>	<b>3</b>	<b>5</b>	<b>8</b>	<b>57</b>

**Benchmarks**

- A. 2% reduction in the number of fatalities and disabling injuries resulting from crashes involving school buses in comparison to the previous 3-year period (2004-2006 = 170).

**Performance Measures**

Assess crashes involving school buses to determine the number of crashes, whether injuries involve passengers inside the bus or individuals outside the bus, and determine whether injuries occurring inside the bus are minor, moderate, or serious.

**Strategies**

1. Support and implement, if feasible, recommendations made by the 2005 Governor’s School Bus Task Force
2. Continue to serve on any state school bus safety committees
3. Expand current public awareness materials to address compartmentalization of school buses, general safety issues regarding riding a school bus, safety around the loading zones, and sharing the road with school buses



## VULNERABLE ROADWAY USERS



Missouri's population is estimated at approximately 5.8 million. In 2006, approximately 4,282,000 Missourians were licensed drivers, leaving the remaining 1,518,000 unlicensed. While many of these individuals may take alternative means of transportation, many thousands of others rely on non-motorized transportation options such as walking and bicycling.

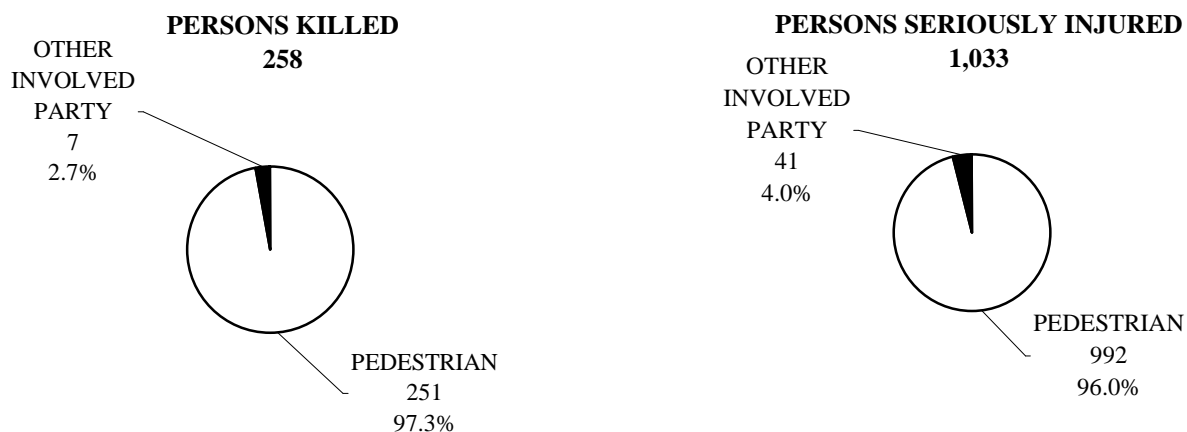
Both walking and bicycling have the potential to provide physical and health benefits, but they also have the potential for serious or fatal injuries if involved in a crash. Crashes involving pedestrians and bicyclists do not occur in extremely large numbers (0.9% and 0.4% of all crashes, respectively); however, when a pedestrian or bicyclist is involved in a traffic crash, the potential for harm is much greater.

Pedestrians and bicyclists alike need to understand that they have primary responsibility for their own safety. The motoring public also has a responsibility to share the road in a safe manner with these vulnerable road users.

### Pedestrians

For the period 2004-2006, there were 251 fatal pedestrian-involved crashes and 958 disabling injury pedestrian-involved crashes. During that 3-year period, of the 258 persons killed in pedestrian involved crashes, 251 (97.3%) were the pedestrians. Of the 1,033 seriously injured in pedestrian involved crashes, 992 (96.0%) were the pedestrians.

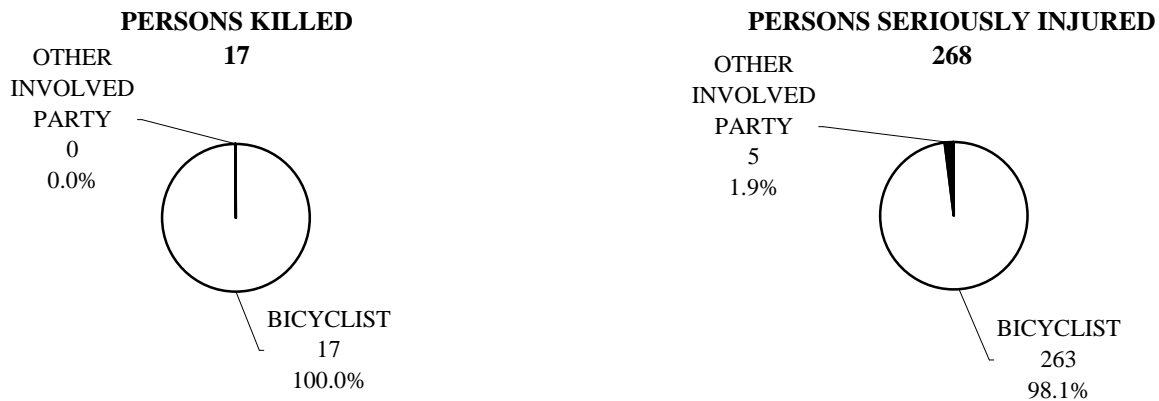
### 2004 – 2006 MISSOURI PEDESTRIAN INVOLVED TRAFFIC CRASHES (Person Involvement)



## Bicyclists

For the period 2004-2006, there were 17 fatal bicycle-involved crashes and 259 disabling injury bicycle-involved crashes. For that same 3-year period, of the 17 persons killed in bicycle-involved crashes, 17 (100.0%) were the bicyclists. Of the 268 persons seriously injured in bicycle-involved crashes, 263 (98.1%) were the bicyclists.

### 2004-2006 MISSOURI BICYCLE INVOLVED TRAFFIC CRASHES (Person Involvement)



## Benchmarks

- A. 2% reduction in number of people killed in crashes involving pedestrians in comparison to the previous 3-year period (2004-2006 = 258)
- B. 2% reduction in the number of people seriously injured in pedestrian involved crashed compared to the previous 3-year period (2004-2006 = 1,033)
- C. 2% reduction in number of people killed in crashes involving bicycles in comparison to the previous 3-year period (2004-2006 = 17)
- D. 2% reduction in number of people seriously injured in bicycle involved crashed compared to the previous 3-year period (2004-2006 = 268)

## Performance Measures

Continue to track fatal and disabling injury crashes involving pedestrians and bicyclists

## Strategies

1. Serve on the MoDOT Bicycle and Pedestrian Advisory Committee
2. Administer 46 newly awarded Safe Routes to Schools grants for both infrastructure and non-infrastructure (education/awareness) projects through the highway safety division; the grants will improve walking, biking and wheeling conditions at 96 schools.
3. Educate the motoring public on sharing the road safely with pedestrians and bicyclists
4. Educate pedestrians and bicyclists on safely interacting with motor vehicles
5. Purchase helmets for distribution at exhibits and for school/local safety awareness programs
6. Utilize Safe Communities to conduct bicycle rodeos (or similar programs) and other bicycle safety events and awareness programs



# ENGINEERING SERVICES AND DATA COLLECTION



## **Engineering Services**

Traffic engineering is a vital component of the traffic safety countermeasure picture. The techniques engineers use to design roads certainly affect the safety of motorists. Engineering approaches offer two basic types of countermeasures against drivers committing hazardous moving violations: highway design and traffic operations. With highway design, the roads can be redesigned to add capacity or accommodate increased traffic. Highway design can also mitigate the injury consequences for motorists who come into contact with aggressive, impaired, or distracted drivers. Effective traffic engineering offers a way to accommodate increased traffic flow, or at least get it under control, without building new roads.

One of the most successful examples of an engineering solution to mitigate cross-median crashes (one of our most deadly crashes on the interstates), has been the installation of the median guard cable. Since the statewide installation effort began in 2003, over 500 miles of guard cable have been installed across the state. As a result of this countermeasure, cross-median fatalities have decreased as much as 90% on interstates with cable installed.

## **Local Community Traffic Assistance**

Technical expertise is also provided to cities/counties to conduct bridge analysis including bridge inspections. In order to provide assistance in this area, the Highway Safety Division allocates funding for consultants to perform this service for the local jurisdictions. This project is identified as the Bridge Engineering Assistance Program (BEAP).

## **Internal Grants Management System**

In late 2001, the highway safety division began work with the Regional Justice Information Service (REJIS) to develop the first-of-its-kind online grants management system. The system allows grantees to electronically submit applications. This information feeds into a system that builds databases for managing the highway safety grants (budgets, grantee lists, inventory, vouchering, reporting data, disbursement reports, etc.). The system went live for the 2003 grant application cycle. Since that time, the highway safety division has continued to work with REJIS to refine the system and make it more user friendly for the grantees and more functional and extensive for the highway safety office.

## **Training**

Support is also given to provide traffic engineering forums and technology transfer to enhance local capability for accident countermeasure developments. This is accomplished through training workshops and conferences funded through the Missouri Department of Transportation.

An instructional program on traffic practices and crash countermeasure development will be offered to local law enforcement and traffic engineers that provides them fifteen professional development hours. Participants will receive training on pinpointing typical traffic problems, roadway and signing defects, and identifying solutions for high-crash locations.

## **Data Collection**

Each state has developed, to varying degrees, systems for the collection, maintenance and analysis of traffic safety data. Motor vehicle crash data tell us about the characteristics of the crash and the vehicles and persons involved. Crash data elements describe the date, time, location, harmful events, type of crash, weather and contributing circumstances. Vehicle data elements describe the vehicle in terms of the make, year, type, role, actions, direction, impact, sequence of events, and damaged areas. Person data elements describe all persons involved by age, sex, injury status and type. Additional information describing the vehicle number, seating position, use of safety equipment, driver status information, non-motorist status, alcohol/drug involvement, and EMS transport status is collected when relevant to the person involved.

## **STARS Maintenance and Traffic Safety Compendium**

The traffic safety program supports maintenance of the Statewide Traffic Accident Reporting System (STARS), which is the repository for all crash statistics. The Traffic Safety Compendium is compiled from statistics collected in STARS. Without this vital component, it would be difficult to develop a comprehensive plan based on consistently reported crash data especially as it relates to contributing circumstances that caused the crash. This crash information is shared with MoDOT's traffic division.

## **Law Enforcement Traffic Software (LETS)**

This web-based computerized system for collection and comprehensive management of traffic data provides on-line information concerning traffic activities and needs for local law enforcement agencies. LETS allows agencies to track crash occurrences, deploy enforcement efforts, design accident countermeasure programs, and develop customized reports. The LETS software will be able to electronically transfer crash data to the STARS database when that system is capable of receiving the data.

## **Benchmarks**

- A. Production of the annual Traffic Safety Compendium in a timely fashion for easy use by traffic safety advocates, law enforcement agencies, media, and the general public
- B. Provide consultant assistance to local communities for bridge engineering assessments
- C. Provide training for engineering professionals at workshops and the Annual Traffic Conference (attendance dependent upon conference costs based on location and travel constraints)
- D. Provide an effective, efficient software system for capturing local law enforcement crash data
- E. Provide an effective, efficient web-based highway safety grants management system

## **Performance Measures**

Continue tracking and analyzing crash statistics to determine which problem areas have demonstrated an increase or decrease in crash activity. Crash statistics will be evaluated by geographic location, driver subgroups, and causation factors to determine positive or negative trends.

## **Strategies**

- 1. Encode all accident reports into the STARS system, ensuring accuracy and efficiency, and provide equipment to support STARS maintenance
- 2. Utilize statistics to produce the annual Traffic Safety Compendium to assist MoDOT's Highway Safety Division and local communities in developing problem identification

3. Provide expertise and funding to assure communities are in compliance with uniform traffic codes and that the bridges within their jurisdictions are upgraded in terms of their safety
4. Provide training to assure state and local engineers are kept abreast of current technology
5. Continue LETS software improvement and training – train users on accessing and utilizing LETS system, log users into the system, and provide help desk through REJIS
6. Implement, where possible, recommendations of the Traffic Records Assessment team which will include establishing linkage capability with the Statewide Traffic Accident Reporting System in order to generate merged records for analytic purposes
7. Continue to serve on the Traffic Records committee and assist in the update of the Missouri Traffic Records Strategic Plan
8. Implement recommendations of the 2006 Traffic Records Assessment into the statewide strategic plan (as required in Section 408 implementing guidelines)
9. Continually refine and enhance Missouri's data collection and analysis systems in order to produce tables and reports that provide standardized exposure data for use in developing traffic safety countermeasure programs
10. Promote use of the online law enforcement mobilization reporting system
11. Collaborate with the Missouri State Highway Patrol to revamp the annual Traffic Safety Compendium in order to make it more comprehensible to the general public, and to assure that the statistics being captured answer the state's problem identification questions in order to properly allocate limited resources in the most efficient manner
12. Develop and implement a totally web-based Highway Safety grants management system working in conjunction with the Highway Safety division, REJIS, and MoDOT's Information Technology division

**FY 2008 BUDGET**  
**and**  
**PROJECT LISTING**





Project #	Grantee	Problem Area and Project Countermeasure	Total Allocation	402	410	154 AL	2011	154 HE	408	1906
		<b>PLANNING AND ADMINISTRATION</b>								
08-PA-02-1	MO. Division of Highway Safety	P & A Coordination		\$ 200,000.00						
		<b>TOTAL PA</b>	<b>\$ 200,000.00</b>	<b>\$ 200,000.00</b>						
		<b>POLICE TRAFFIC SERVICES</b>								
08-PT-02-01	MO. Division of Highway Safety	Police Traffic Services Coordination		\$ 150,000.00						
08-PT-02-02	MO. Division of Highway Safety	LETSAC		\$ 30,000.00						
08-PT-02-03	MO. Division of Highway Safety	REJIS		\$ 15,000.00						
08-PT-02-04	MO. Division of Highway Safety	Statewide HMV		\$ 15,000.00						
08-PT-02-05	MO. Division of Highway Safety	Mature Driver Program		\$ 25,000.00						
08-PT-02-06	MO. Division of Highway Safety	Workshops/Training Support		\$ 15,000.00						
08-PT-02-07	MO. Division of Highway Safety	Young Driver Program - Youth Summit		\$ 75,000.00						
08-PT-02-08	MO. Division of Highway Safety	MoDOT Conference		\$ 30,000.00						
08-PT-02-09	MO. Division of Highway Safety	Creative Services		\$ 100,000.00						
08-PT-02-10	MO. Division of Highway Safety	Youth Prevention and Awareness		\$ 35,000.00						
08-PT-02-11	MO. Division of Highway Safety	PI&E General		\$ 40,000.00						
08-PT-02-12	Arnold Police Department	Hazardous Moving Violation Enforcement		\$ 4,608.15						
08-PT-02-13	Arnold Police Department	Occupant Protection		\$ 2,000.12						
08-PT-02-14	Ballwin Police Department	Hazardous Moving Violation Enforcement		\$ 4,032.00						
08-PT-02-15	Bellefontain Neighbors PD	Hazardous Moving Violation Enforcement		\$ 8,160.00						
08-PT-02-16	Belton Police Department	Hazardous Moving Violation Enforcement		\$ 3,168.00						
08-PT-02-17	Belton Police Department	Occupant Protection		\$ 1,584.00						
08-PT-02-18	Belton Police Department	Speed Enforcement		\$ 5,544.00						
08-PT-02-19	Blue Springs Police Department	Hazardous Moving Violation Enforcement		\$ 3,072.00						
08-PT-02-20	Blue Springs Police Department	Occupant Protection		\$ 3,072.00						
08-PT-02-21	Boone County Sheriff	Hazardous Moving Violation Enforcement		\$ 12,950.40						
08-PT-02-22	Bowling Green Police Department	Hazardous Moving Violation Enforcement		\$ 3,390.00						
08-PT-02-23	Bridgeton Police Department	Hazardous Moving Violation Enforcement		\$ 9,616.80						
08-PT-02-24	Cape Girardeau Police Department	Hazardous Moving Violation Enforcement		\$ 9,856.00						
08-PT-02-25	Cass County Sheriff	Speed Enforcement		\$ 2,520.00						
08-PT-02-26	Chesterfield Police Department	Educational Projects		\$ 31,100.00						
08-PT-02-27	Christian County Sheriff	Hazardous Moving Violation Enforcement		\$ 7,504.64						
08-PT-02-28	Cole County Sheriff	Hazardous Moving Violation Enforcement		\$ 8,250.00						

Project #	Grantee	Problem Area and Project Countermeasure	Total Allocation	402	410	154 AL	2011	154 HE	408	1906
08-PT-02-29	Cool Valley Police Department	Hazardous Moving Violation Enforcement		\$ 2,000.00						
08-PT-02-30	Creve Coeur Police Department	Work Zone Officer		\$ 40,425.00						
08-PT-02-31	Crystal City Police Department	Hazardous Moving Violation Enforcement		\$ 3,900.00						
08-PT-02-32	DeSoto Police Department	Hazardous Moving Violation Enforcement		\$ 3,330.00						
08-PT-02-33	Ellisville Police Department	Hazardous Moving Violation Enforcement		\$ 5,600.00						
08-PT-02-34	Eureka Police Department	Hazardous Moving Violation Enforcement		\$ 33,514.56						
08-PT-02-35	Farmington Police Department	Hazardous Moving Violation Enforcement		\$ 3,519.00						
08-PT-02-36	Ferguson Police Department	Hazardous Moving Violation Enforcement		\$ 6,031.00						
08-PT-02-37	Festus Police Department	Hazardous Moving Violation Enforcement		\$ 8,010.00						
08-PT-02-38	Florissant Police Department	Hazardous Moving Violation Enforcement		\$ 5,022.60						
08-PT-02-39	Franklin County Sheriff	DWI Enforcement		\$ 10,000.00						
08-PT-02-40	Franklin County Sheriff	Sobriety Checkpoint		\$ 5,150.00						
08-PT-02-41	Franklin County Sheriff	Speed Enforcement		\$ 10,000.00						
08-PT-02-42	Gladstone DPS	DWI Enforcement		\$ 7,020.00						
08-PT-02-43	Gladstone DPS	Hazardous Moving Violation Enforcement		\$ 11,232.00						
08-PT-02-44	Gladstone DPS	Occupant Protection		\$ 3,744.00						
08-PT-02-45	Glendale Police Department	Hazardous Moving Violation Enforcement		\$ 2,100.00						
08-PT-02-46	Greene County Sheriff	DWI Enforcement		\$ 75,000.00						
08-PT-02-47	Greene County Sheriff	Speed Enforcement		\$ 50,000.00						
08-PT-02-48	Greene County Sheriff	Youth Alcohol		\$ 25,000.00						
08-PT-02-49	Hannibal Police Department	Hazardous Moving Violation Enforcement		\$ 10,800.00						
08-PT-02-50	Harrisonville Police Department	Hazardous Moving Violation Enforcement		\$ 2,544.00						
08-PT-02-51	Hazelwood Police Department	Hazardous Moving Violation Enforcement		\$ 8,640.00						
08-PT-02-52	Herculaneum Police Department	Hazardous Moving Violation Enforcement		\$ 7,125.00						
08-PT-02-53	Howell County Sheriff	Hazardous Moving Violation Enforcement		\$ 10,000.00						
08-PT-02-54	Independence Police Department	Hazardous Moving Violation Enforcement		\$ 102,000.00						
08-PT-02-55	Independence Police Department	Red Light Running		\$ 27,200.00						
08-PT-02-57	Jackson County Sheriff	Hazardous Moving Violation Enforcement		\$ 10,000.00						
08-PT-02-58	Jackson Police Department	Hazardous Moving Violation Enforcement		\$ 1,500.00						
08-PT-02-59	JASCO-Metropolitan Police	Hazardous Moving Violation Enforcement		\$ 3,000.00						
08-PT-02-60	Jasper County Sheriff	Speed Enforcement		\$ 15,000.00						
08-PT-02-61	Jasper County Sheriff	Hazardous Moving Violation Enforcement		\$ 15,000.00						

Project #	Grantee	Problem Area and Project Countermeasure	Total Allocation	402	410	154 AL	2011	154 HE	408	1906
08-PT-02-62	Jefferson City Police Department	Hazardous Moving Violation Enforcement		\$ 20,020.00						
08-PT-02-63	Jefferson County Sheriff	DWI Enforcement		\$ 100,034.72						
08-PT-02-64	Jefferson County Sheriff	Hazardous Moving Violation Enforcement		\$ 100,034.72						
08-PT-02-65	Jefferson County Sheriff	Sobriety Checkpoint		\$ 40,876.00						
08-PT-02-66	Jefferson County Sheriff	Speed Enforcement		\$ 35,859.40						
08-PT-02-67	Jefferson County Sheriff	Youth Alcohol		\$ 95,018.12						
08-PT-02-68	Jennings Police Department	Hazardous Moving Violation Enforcement		\$ 6,000.00						
08-PT-02-69	Joplin Police Department	Hazardous Moving Violation Enforcement		\$ 7,417.22						
08-PT-02-70	Kansas City Police Department	Occupant Protection		\$ 53,280.00						
08-PT-02-71	Kansas City Police Department	Speed Enforcement I-435		\$ 44,400.00						
08-PT-02-72	Kansas City Police Department	Speed Enforcement I-70		\$ 54,400.00						
08-PT-02-73	Kansas City Police Department	Hazardous Moving Violation Enforcement		\$ 78,750.00						
08-PT-02-74	Kennett Police Department	Speed Enforcement		\$ 14,400.00						
08-PT-02-75	Kennett Police Department	Occupant Protection		\$ 1,512.00						
08-PT-02-76	Lake St. Louis Police Department	Speed Enforcement		\$ 1,500.00						
08-PT-02-77	Lee's Summit Police Department	Hazardous Moving Violation Enforcement		\$ 18,000.00						
08-PT-02-78	Lee's Summit Police Department	Speed Enforcment I470-50		\$ 12,000.00						
08-PT-02-79	Lone Jack Police Department	Hazardous Moving Violation Enforcement		\$ 5,184.00						
08-PT-02-80	Maryland Heights Police Dept.	Speed Enforcement		\$ 13,621.44						
08-PT-02-81	Missouri Police Chiefs Assoc.	Law Enforcement Training		\$ 50,600.00						
08-PT-02-82	Neosho Police Department	Hazardous Moving Violation Enforcement		\$ 4,992.00						
08-PT-02-83	Newton County Sheriff	Hazardous Moving Violation Enforcement		\$ 14,000.00						
08-PT-02-84	Nixa Police Department	Hazardous Moving Violation Enforcement		\$ 2,507.83						
08-PT-02-85	Normandy Police Department	Hazardous Moving Violation Enforcement		\$ 2,000.00						
08-PT-02-86	Olivette Police Department	Hazardous Moving Violation Enforcement		\$ 2,500.00						
08-PT-02-87	Osage Beach DPS	Hazardous Moving Violation Enforcement		\$ 6,336.00						
08-PT-02-88	Overland Police Department	Hazardous Moving Violation Enforcement		\$ 9,504.00						
08-PT-02-90	Peculiar Police Department	Hazardous Moving Violation Enforcement		\$ 4,008.00						
08-PT-02-91	Perryville Police Department	Hazardous Moving Violation Enforcement		\$ 4,008.00						
08-PT-02-92	Pevely Police Department	Hazardous Moving Violation Enforcement		\$ 13,765.50						
08-PT-02-93	Pevely Police Department	Speed Enforcement		\$ 15,846.00						
08-PT-02-94	Platte County Sheriff	Hazardous Moving Violation Enforcement		\$ 17,498.25						

Project #	Grantee	Problem Area and Project Countermeasure	Total Allocation	402	410	154 AL	2011	154 HE	408	1906
08-PT-02-95	Pleasant Hill Police Department	Hazardous Moving Violation Enforcement		\$ 4,050.00						
08-PT-02-96	Raymore Police Department	Hazardous Moving Violation Enforcement		\$ 7,980.00						
08-PT-02-97	Raytown Police Department	Hazardous Moving Violation Enforcement		\$ 21,219.20						
08-PT-02-98	Riverside DPS	School Bus Stop Sign Enforcement		\$ 1,800.00						
08-PT-02-99	Scott County Sheriff	Hazardous Moving Violation Enforcement		\$ 6,000.00						
08-PT-02-100	Springfield Police Department	Hazardous Moving Violation Enforcement		\$ 25,000.05						
08-PT-02-101	Springfield Police Department	Red Light Running		\$ 25,004.00						
08-PT-02-102	St. Ann Police Department	Speed Enforcement		\$ 4,731.20						
08-PT-02-103	St. Charles City Police Department	Red Light Running		\$ 12,000.00						
08-PT-02-104	St. Charles City Police Department	Speed Enforcement		\$ 20,000.00						
08-PT-02-105	St. Charles City Police Department	Hazardous Moving Violation Enforcement		\$ 16,120.00						
08-PT-02-106	St. John Police Department	Hazardous Moving Violation Enforcement		\$ 9,500.00						
08-PT-02-107	St. John Police Department	DWI Enforcement		\$ 9,500.00						
08-PT-02-108	St. Joseph Police Department	DWI Enforcement		\$ 6,178.00						
08-PT-02-109	St. Joseph Police Department	Hazardous Moving Violation Enforcement		\$ 10,379.00						
08-PT-02-110	St. Joseph Police Department	Occupant Protection		\$ 5,005.00						
08-PT-02-111	St. Joseph Police Department	Sobriety Checkpoint		\$ 5,005.00						
08-PT-02-112	St. Joseph Police Department	Youth Alcohol		\$ 11,921.40						
08-PT-02-113	St. Louis County Police Dept.	Highway Safety Team Enforcement Unit		\$ 241,984.70						
08-PT-02-114	St. Louis County Police Dept.	Sobriety Checkpoint		\$ 34,974.00						
08-PT-02-115	St. Louis Metro Police Dept.	Speed Enforcement		\$ 110,009.25						
08-PT-02-116	St. Louis Metro Police Dept.	Hazardous Moving Violation Enforcement		\$ 110,009.25						
08-PT-02-117	Town & Country Police Dept.	Speed Enforcement		\$ 13,500.00						
08-PT-02-118	Union Police Department	Hazardous Moving Violation Enforcement		\$ 10,050.00						
08-PT-02-119	Union Police Department	DWI Enforcement		\$ 10,050.00						
08-PT-02-120	Washington Police Department	Hazardous Moving Violation Enforcement		\$ 8,100.00						
08-PT-02-121	West Plains Police Department	Hazardous Moving Violation Enforcement		\$ 10,016.27						
08-PT-02-122	Willow Springs Police Department	Hazardous Moving Violation Enforcement		\$ 4,000.00						
08-PT-02-123	Woodson Terrace Police Dept.	Hazardous Moving Violation Enforcement		\$ 2,000.00						
08-PT-02-124	Missouri Safety Center	Occupant Protection CIOT Enforcement		\$ 250,020.00						
08-PT-02-125	Missouri Safety Center	Occupant Protection Youth Enforcement		\$ 80,000.00						
08-PT-02-126	Missouri Safety Center	Driver Improvement Program D.I.P.		\$ 19,980.00						

Project #	Grantee	Problem Area and Project Countermeasure	Total Allocation	402	410	154 AL	2011	154 HE	408	1906
08-PT-02-127	Missouri Safety Center	LE Training Crash Investigation Package		\$ 86,805.00						
08-PT-02-128	Missouri Safety Center	Child Safety Seat Study		\$ 29,808.00						
08-PT-02-129	Missouri Safety Center	High School Safety Belt Study		\$ 65,000.00						
08-PT-02-130	Missouri Safety Center	Statewide Safety Belt Study		\$ 108,000.00						
08-PT-02-131	Missouri Southern State Univ.	Law Enforcement Training		\$ 63,000.00						
08-PT-02-132	MoDOT	Operation Lifesaver		\$ 64,000.00						
08-PT-02-133	MO. Division of Fire Safety	Educational Projects		\$ 34,155.00						
08-PT-02-134	Missouri State Highway Patrol	Aircraft Speed Enforcement		\$ 90,012.60						
08-PT-02-135	Missouri State Highway Patrol	Occupant Protection - CIOT		\$ 157,521.78						
08-PT-02-136	Missouri State Highway Patrol	Law Enforcement Training- Skill Development		\$ 33,600.00						
08-PT-02-137	Missouri State Highway Patrol	Hazardous Moving Violation Enforcement		\$ 157,521.78						
08-PT-02-138	Missouri State Highway Patrol	STARS		\$ 132,240.50						
08-PT-02-139	Missouri State Highway Patrol	Statistical Analysis Center		\$ 11,000.00						
08-PT-02-140	Missouri State Highway Patrol	Law Enforcement Training - TND Application		\$ 141,626.00						
08-PT-02-141	Univ. of Missouri Kansas City	Hazardous Moving Violation Enforcement		\$ 8,000.00						
08-PT-02-142	Washington University	Fitness-to -Drive Mature Driver		\$ 93,781.00						
08-PT-02-143	Platte County Sheriff	Full Time Traffic Officer		\$ 18,515.92						
08-PT-02-144	Springfield Police Department	Part-Time FTE-Data Entry		\$ 9,100.00						
08-PT-02-145	Clay County Sheriff	Hazardous Moving Violation		\$ 7,680.00						
08-PT-02-146	Grandview Police Department	Hazardous Moving Violation		\$ 10,368.00						
08-PT-02-148	Liberty Police Department	Hazardous Moving Violation		\$ 9,576.00						
08-PT-02-149	O'Fallon Police Department	Speed Enforcement		\$ 12,156.03						
08-PT-02-150	Sedalia Police Department	Hazardous Moving Violation		\$ 10,397.70						
08-PT-02-151	Smithville Police Department	Hazardous Moving Violation		\$ 4,050.00						
08-PT-02-152	Stone County Sheriff	Speed Enforcement		\$ 2,500.00						
08-PT-02-153	Troy Police Department	Speed Enforcement		\$ 6,160.00						
		<b>EQUIPMENT</b>								
08-PT-02-200	MO. Division of Highway Safety	MSHP Troop A Radar		\$ 9,000.00						
08-PT-02-201	MO. Division of Highway Safety	Law Enforcement Incentives		\$ 30,000.00						
08-PT-02-202	Barton County Sheriff	Hazardous Moving Violation		\$ 5,800.00						
08-PT-02-203	Buchanan County Sheriff	Enforcement of Emergency Warning		\$ 5,668.00						
08-PT-02-204	Camden County Sheriff	Hazardous Moving Violation		\$ 33,806.00						

Project #	Grantee	Problem Area and Project Countermeasure	Total Allocation	402	410	154 AL	2011	154 HE	408	1906
08-PT-02-205	Cass County Sheriff	Hazardous Moving Violation		\$ 10,202.50						
08-PT-02-206	Creve Coeur Police Department	Speed Enforcement		\$ 11,500.00						
08-PT-02-207	Grain Valley Police Department	Hazardous Moving Violation		\$ 6,032.00						
08-PT-02-208	Jackson County Sheriff	JCSO Traffic Unit (partial)		\$ 375,000.00						
08-PT-02-209	Missouri Sheriffs Association	Law Enforcement Training - Vehicle Driver		\$ 41,156.50						
08-PT-02-210	Ozark Police Department	Hazardous Moving Violation		\$ 8,420.00						
08-PT-02-211	Riverside DPS	Hazardous Moving Violation		\$ 13,820.00						
08-PT-02-212	Sugar Creek Police Department	Hazardous Moving Violation		\$ 10,514.00						
08-PT-02-213	Lawrence County Sheriff	Speed Enforcement		\$ 4,000.00						
08-PT-02-214	Stafford Police Department	Hazardous Moving Violation		\$ 4,804.50						
08-PT-02-56	Independence Police Department	I-70 Aggressive Driving		\$ 46,400.00						
08-PT-02-89	Overland Police Department	Speed Enforcement		\$ 9,252.00						
08-PT-02-147	Kirkwood Police Department	Hazardous Moving Violation		\$ 7,438.00						
		<b>TOTAL PTS PROJECTS</b>		<b>\$ 5,066,093.60</b>						
		<b>TOTAL 402 FUNDED PROJECTS</b>	<b>\$ 6,541,806.16</b>							
		<b>ALCOHOL ENFORCEMENT PROJECTS</b>								
08-AL-03-01	MO. Division of Highway Safety	Youth Alcohol Program Coordination		\$ 60,000.00						
08-AL-03-02	MO. Division of Highway Safety	Parent Guide		\$ 50,000.00						
08-K8-03-01	MO. Division of Highway Safety	Alcohol Program Coordination			\$ 90,000.00					
08-K8-03-02	MO. Division of Highway Safety	Statewide DWI			\$ 15,000.00					
08-K8-03-03	MO. Division of Highway Safety	DRE			\$ 20,000.00					
08-K8-03-04	MO. Division of Highway Safety	PIRE LE Training			\$ 38,000.00					
08-K8-03-05	MO. Division of Highway Safety	Educational Projects			\$ 20,000.00					
08-K8-03-06	MO. Division of Highway Safety	Southwest Task Force			\$ 24,000.00					
08-K8-03-07	Arnold Police Department	Sobriety Checkpoint			\$ 4,999.99					
08-K8-03-08	Belton Police Department	DWI Enforcement			\$ 2,640.00					
08-K8-03-09	Belton Police Department	Sobriety Checkpoint			\$ 6,150.00					
08-K8-03-10	MO. Division of Highway Safety	Impaired Driving Program			\$ 25,000.00					
08-K8-03-11	Belton Police Department	STEP Checkpoint			\$ 2,376.00					
08-K8-03-12	Blue Springs Police Department	Sobriety Checkpoint			\$ 4,560.00					
08-K8-03-13	Boone County Sheriff	Sobriety Checkpoint			\$ 11,060.85					
08-K8-03-14	Boone County Sheriff	Full Time Traffic Unit			\$ 51,578.07					

Project #	Grantee	Problem Area and Project Countermeasure	Total Allocation	402	410	154 AL	2011	154 HE	408	1906
08-K8-03-15	Buchanan County Sheriff	Sobriety Checkpoint			\$ 5,544.00					
08-K8-03-16	Cape Girardeau Police Department	DWI Enforcement			\$ 14,980.00					
08-K8-03-17	Cape Girardeau Police Department	Sobriety Checkpoint			\$ 3,150.00					
08-K8-03-18	Cass County Sheriff	Sobriety Checkpoint			\$ 4,500.00					
08-K8-03-19	Cass County Sheriff	DWI Enforcement			\$ 3,600.00					
08-K8-03-20	Christian County Sheriff	DWI Enforcement			\$ 7,504.64					
08-K8-03-21	Columbia Police Department	DWI Enforcement			\$ 4,028.00					
08-K8-03-22	Columbia Police Department	Sobriety Checkpoint			\$ 3,800.00					
08-K8-03-24	Creve Coeur Police Department	Bat Van Maintenance			\$ 2,000.00					
08-K8-03-25	Independence Police Department	DWI Enforcement			\$ 79,900.00					
08-K8-03-26	Independence Police Department	Sobriety Checkpoint			\$ 35,700.00					
08-K8-03-27	Independence Police Department	Youth Alcohol			\$ 24,480.00					
08-K8-03-28	Kansas City Police Department	Sobriety Checkpoint			\$ 88,128.00					
08-K8-03-29	Kansas City Police Department	DWI Enforcement			\$ 66,600.00					
08-K8-03-30	Kansas City Police Department	Youth Alcohol			\$ 18,000.00					
08-K8-03-31	Mothers Against Drunk Driving	Court Monitoring Project			\$ 110,310.00					
08-K8-03-32	Springfield Police Department	DWI Enforcement			\$ 30,000.00					
08-K8-03-33	Springfield Police Department	Youth Alcohol			\$ 25,018.17					
08-K8-03-34	St. Louis Metro Police Department	DWI Enforcement			\$ 120,010.80					
08-K8-03-35	St. Louis Metro Police Department	Sobriety Checkpoint			\$ 23,025.60					
08-K8-03-36	Missouri State Highway Patrol	DWI Enforcement			\$ 211,011.31					
08-K8-03-37	Missouri State Highway Patrol	DWITS			\$ 69,500.00					
08-K8-03-38	Missouri State Highway Patrol	Sobriety Checkpoint			\$ 229,745.00					
08-K8-03-39	University of Missouri	SMART Server Training			\$ 225,000.00					
		<b>EQUIPMENT</b>								
08-K8-03-200	Arnold Police Department	DWI Enforcement			\$ 5,308.15					
08-K8-03-201	Barton County Sheriff	DWI Enforcement			\$ 2,940.00					
08-K8-03-202	Cole County Sheriff	Sobriety Checkpoint			\$ 12,198.00					
08-K8-03-203	Springfield Police Department	Sobriety Checkpoint			\$ 13,032.00					
08-K8-03-204	Mo. Div. Of Alcohol & Tobacco	Youth Alcohol			\$ 358,660.00					
08-K8-03-23	Creve Coeur Police Department	Sobriety Checkpoint			\$ 9,500.00					
08-K8-PM-03-03	MO. Division of Highway Safety	Impaired Driving Paid Media			\$ 250,000.00					

Project #	Grantee	Problem Area and Project Countermeasure	Total Allocation	402	410	154 AL	2011	154 HE	408	1906
08-154-AL-01	Eldon Police Department	Sobriety Checkpoint				\$ 1,350.00				
08-154-AL-02	Eureka Police Department	DWI Enforcement				\$ 4,189.32				
08-154-AL-03	Eureka Police Department	Sobriety Checkpoint				\$ 7,305.08				
08-154-AL-04	Festus Police Department	DWI Enforcement				\$ 8,010.00				
08-154-AL-05	Grain Valley Police Department	DWI Enforcement				\$ 2,688.00				
08-154-AL-06	Harrisonville Police Department	DWI Enforcement				\$ 2,544.00				
08-154-AL-07	Harrisonville Police Department	Sobriety Checkpoint				\$ 2,120.00				
08-154-AL-08	Herculaneum Police Department	DWI Enforcement				\$ 5,700.00				
08-154-AL-09	Howell County Sheriff	DWI Enforcement				\$ 5,300.00				
08-154-AL-10	Jackson County Sheriff	Sobriety Checkpoint				\$ 8,000.00				
08-154-AL-11	Jackson County Sheriff	Youth Alcohol				\$ 5,000.00				
08-154-AL-12	Jackson County Sheriff	DWI Enforcement				\$ 5,000.00				
08-154-AL-13	JASCO-Metropolitan Police	DWI Enforcement				\$ 2,400.00				
08-154-AL-14	JASCO-Metropolitan Police	Sobriety Checkpoint				\$ 6,000.00				
08-154-AL-15	Jasper County Sheriff	DWI Enforcement				\$ 16,500.00				
08-154-AL-16	Jefferson City Police Department	Sobriety Checkpoint				\$ 5,600.00				
08-154-AL-17	Jennings Police Department	DWI Enforcement				\$ 9,000.00				
08-154-AL-18	Jennings Police Department	Sobriety Checkpoint				\$ 5,130.00				
08-154-AL-19	Joplin Police Department	DWI Enforcement				\$ 7,417.22				
08-154-AL-20	Joplin Police Department	Youth Alcohol				\$ 7,417.22				
08-154-AL-21	Kennett Police Department	DWI Enforcement				\$ 15,552.00				
08-154-AL-22	Lake St. Louis Police Department	DWI Enforcement				\$ 1,500.00				
08-154-AL-23	Lee's Summit Police Department	DWI Enforcement				\$ 21,000.00				
08-154-AL-24	Maryland Heights Police Dept.	DWI Enforcement				\$ 10,996.80				
08-154-AL-25	Neosho Police Department	DWI Enforcement				\$ 2,880.00				
08-154-AL-26	Newton County Sheriff	DWI Enforcement				\$ 23,276.00				
08-154-AL-27	Osage Beach DPS	Sobriety Checkpoint				\$ 4,125.00				
08-154-AL-28	Overland Police Department	DWI Enforcement				\$ 6,336.00				
08-154-AL-29	Overland Police Department	Sobriety Checkpoint				\$ 6,420.00				
08-154-AL-30	Ozark Police Department	DWI Enforcement				\$ 5,760.00				
08-154-AL-31	Peculiar Police Department	Sobriety Checkpoint				\$ 1,512.00				
08-154-AL-32	Peculiar Police Department	DWI Enforcement				\$ 576.00				



Project #	Grantee	Problem Area and Project Countermeasure	Total Allocation	402	410	154 AL	2011	154 HE	408	1906
08-154-AL-33	Pevely Police Department	DWI Enforcement				\$ 6,840.00				
08-154-AL-34	Platte County Sheriff	DWI Enforcement				\$ 4,666.20				
08-154-AL-35	Pleasant Hill Police Department	Sobriety Checkpoint				\$ 2,511.00				
08-154-AL-36	Raymore Police Department	DWI Enforcement				\$ 3,648.00				
08-154-AL-37	Raymore Police Department	Sobriety Checkpoint				\$ 6,840.00				
08-154-AL-38	Riverside DPS	DWI Enforcement				\$ 5,010.00				
08-154-AL-39	Scott County Sheriff	DWI Enforcement				\$ 9,600.00				
08-154-AL-40	St. Charles City Police Department	DWI Enforcement				\$ 20,160.00				
08-154-AL-41	St. Charles City Police Department	Sobriety Checkpoint				\$ 6,725.00				
08-154-AL-42	St. Charles County Sheriff	DWI Enforcement				\$ 15,600.00				
08-154-AL-43	St. John Police Department	Sobriety Checkpoint				\$ 8,225.00				
08-154-AL-44	Town & Country Police Dept	DWI Enforcement				\$ 15,000.00				
08-154-AL-45	Troy Police Department	Sobriety Checkpoint				\$ 6,125.00				
08-154-AL-46	Washington Police Department	DWI Enforcement				\$ 8,100.00				
08-154-AL-47	Washington Police Department	Youth Alcohol				\$ 5,400.00				
08-154-AL-48	Webb City Police Department	Sobriety Checkpoint				\$ 10,815.00				
08-154-AL-49	Webb City Police Department	DWI Enforcement				\$ 5,040.00				
08-154-AL-50	West Plains Police Department	Sobriety Checkpoint				\$ 2,461.00				
08-154-AL-51	Willow Springs Police Department	Sobriety Checkpoint				\$ 3,000.00				
08-154-AL-52	Missouri Safety Center	STEP DWI Enforcement				\$ 250,000.00				
08-154-AL-53	Missouri Safety Center	LE Training - 8-hr. Drugs/Testifying				\$ 3,888.00				
08-154-AL-54	Missouri Safety Center	Breath Lab Operations/Training				\$ 190,392.00				
08-154-AL-55	Missouri Safety Center	SFST Coordination				\$ 169,214.00				
08-154-AL-56	Missouri Safety Center	Sobriety Checkpoint Supervisor Training				\$ 32,400.00				
08-154-AL-57	Mo. Southern State University	LE Training - Alcohol				\$ 66,000.00				
08-154-AL-58	Mo. Dept. of Revenue	LE Training Seminars				\$ 10,096.75				
08-154-AL-59										
08-154-AL-60	Mo. Off. of Prosecution Services	TS Resource Prosecutor				\$ 169,514.05				
08-154-AL-61	University of Missouri	ThinkFirst Missouri				\$ 260,000.00				
08-154-AL-62	Cape Girardeau County Sheriff	DWI Enforcement				\$ 4,105.50				
08-154-AL-63	Clay County Sheriff	Impaired Driving				\$ 7,680.00				

Project #	Grantee	Problem Area and Project Countermeasure	Total Allocation	402	410	154 AL	2011	154 HE	408	1906
08-154-AL-64	O'Fallon Police Department	DWI Enforcement				\$ 9,411.12				
08-154-AL-65	O'Fallon Police Department	Sobriety Checkpoint				\$ 7,842.60				
08-154-AL-66	Stone County Sheriff	DWI Enforcement				\$ 5,000.00				
		<b>EQUIPMENT</b>								
08-154-AL-200	MO. Division of Highway Safety	Sobriety Checkpoint Equipment				\$ 20,000.00				
08-154-AL-201	Jackson County Sheriff	JCSO Traffic Unit (partial)				\$ 145,000.00				
08-154-AL-202	Ladue Police Department	DWI Enforcement				\$ 2,780.00				
08-154-AL-203	Ozark Police Department	Sobriety Checkpoint Equipment				\$ 11,261.50				
08-154-AL-204	Pleasant Hill Police Department	DWI Enforcement				\$ 8,025.00				
08-154-AL-205	Missouri Safety Center	Breath Instrument Replacement				\$ 249,480.00				
08-154-AL-206	Missouri Safety Center	Breath Simulator Replacement				\$ 35,165.00				
08-154-AL-207	Mo. Dept. of Revenue	Equipment/materials for DOR Attorneys				\$ 9,480.00				
08-154-AL-208	Missouri State Highway Patrol	Digital Video Cameras for Patrol Cars				\$ 1,300,000.00				
		<b>TOTAL ALCOHOL PROJECTS</b>	<b>\$ 5,811,644.94</b>	<b>\$ 110,000.00</b>	<b>\$ 2,372,538.58</b>	<b>\$ 3,329,106.36</b>				
		<b>OCCUPANT PROTECTION</b>								
08-OP-05-01	MO. Division of Highway Safety	CPS Program Coordination		\$ 40,000.00						
08-OP-05-02	MO. Division of Highway Safety	Occupant Protection-Materials, Training, Seats		\$ 15,000.00						
08-OP-05-03	MO. Division of Highway Safety	Occupant Protection-Bike/Pedestrian Materials		\$ 5,000.00						
08-OP-05-04	MO. Division of Highway Safety	Occupant Protection-Tween Safety		\$ 50,000.00						
		<b>TOTAL OCCUPANT PROTECTION (402)</b>	<b>\$ 110,000.00</b>	<b>\$ 110,000.00</b>						
		<b>SAFE COMMUNITIES</b>								
08-SA-09-01	MO. Division of Highway Safety	Safe Communities Coordination		\$ 2,000.00						
08-SA-09-02	Cape Girardeau Safe Communities	Safety Communities Traffic Safety Program		\$ 108,436.15						
08-SA-09-03	Cape Girardeau Safe Communities	Team Spirit Conference		\$ 132,499.00						
08-SA-09-04	Traffic Safety Alliance	Safe Communities Project		\$ 49,777.41						
		<b>TOTAL SAFE COMMUNITIES</b>	<b>\$ 292,712.56</b>	<b>\$ 292,712.56</b>						
		<b>ENGINEERING SERVICES</b>								
08-RS-11-01	MO. Division of Highway Safety	Engineering Services Coordination		\$ 3,000.00						
08-RS-11-02	MO. Division of Highway Safety	BEAP/TEAP		\$ 60,000.00						
		<b>TOTAL ENGINEERING SERVICES</b>	<b>\$ 63,000.00</b>	<b>\$ 63,000.00</b>						
		<b>402 PAID MEDIA</b>								

Project #	Grantee	Problem Area and Project Countermeasure	Total Allocation	402	410	154 AL	2011	154 HE	408	1906
08-PM-02-01	MO. Division of Highway Safety	CPS Child Passenger Safety Paid Media		\$ 100,000.00						
08-PM-02-02	MO. Division of Highway Safety	Work Zone Paid Media		\$ 100,000.00						
08-PM-02-03	MO. Division of Highway Safety	Young Driver Paid Media		\$ 200,000.00						
08-PM-02-04	MO. Division of Highway Safety	Occupant Protection-CIOT Paid Media		\$ 300,000.00						
		<b>TOTAL PAID MEDIA</b>	<b>\$ 700,000.00</b>	<b>\$ 700,000.00</b>						
		<b>PROHIBIT RACIAL PROFILING</b>								
08-K10-07-01	Missouri State Highway Patrol	Prohibit Racial Profiling								\$ 480,000.00
08-K10-07-02										
		<b>TOTAL PROHIBIT RACIAL PROFILING</b>	<b>\$ 480,000.00</b>							<b>\$ 480,000.00</b>
		<b>DATA PROGRAM INCENTIVE</b>								
08-K9-04-01	MO. Division of Highway Safety	Traffic Records Coordination							\$ 10,000.00	
08-K9-04-02	MO. Division of Highway Safety	LETS Software							\$ 20,000.00	
08-K9-04-03	MO. Division of Highway Safety	MSHP Web Trace Reports							\$ 115,000.00	
08-K9-04-04	MO. Division of Highway Safety	MoDOT GPS Line Work							\$ 180,000.00	
08-K9-04-05	Missouri Safety Center	LETS Software Training							\$ 7,560.00	
08-K9-04-06	Mo. Off. of State Court Admin.	Automated Traffic Disposition Reporting							\$ 484,542.00	
		<b>TOTAL DATA PROGRAM INCENTIVE</b>	<b>\$ 817,102.00</b>						<b>\$ 817,102.00</b>	
		<b>154 HE TRANSFER FUNDS</b>								
08-154-HE-1	MO Dept of Transportation	Hazardous Elimination Materials Projects						\$ 15,000,000.00		
		<b>TOTAL 154 HE TRANSFER FUNDS</b>	<b>\$ 15,000,000.00</b>					<b>\$ 15,000,000.00</b>		
		<b>2011 CHILD SEATS</b>								
08-K3-05-01	MO. Division of Highway Safety	CPS for Low Income Families					\$ 500,000.00			
08-K3-05-200	Camdenton Police Department	CPS Law Enforcement					\$ 11,440.00			
		<b>TOTAL 2011 CHILD SEATS</b>	<b>\$ 511,440.00</b>				<b>\$ 511,440.00</b>			
				<b>\$ 6,573,351.16</b>	<b>\$ 2,372,538.58</b>	<b>\$ 3,329,106.36</b>	<b>\$ 511,440.00</b>	<b>\$ 15,000,000.00</b>	<b>\$ 817,102.00</b>	<b>\$ 480,000.00</b>
		<b>TOTAL HSP</b>	<b>\$ 29,051,993.10</b>							