

# MICHIGAN PERFORMANCE PLAN

Michigan has a traffic safety record to be proud of. Fatalities have fallen by twenty-five percent over the past decade, to the lowest levels since the creation of the Office of Highway Safety Planning (OHSP) in 1969, despite increases in the number of drivers, vehicles, and vehicle miles traveled. It appears the roads have never been safer, and yet more than 1,000 people continue to die each year on Michigan roads.

During 2007, 1,084 people lost their lives in Michigan due to motor vehicle related crashes. Michigan's death rate is low compared to national benchmarks. While this means lives saved, it also means that someone has died on Michigan roads the equivalent of three times a day, every day, all year. It is impossible to fully grasp the impact of 1,084 deaths. We try to grasp the magnitude of these deaths with numbers like 300,000 crashes or nine billion dollars in costs, but every death is a unique loss, a separate tragedy that ends one life and affects many more. Three times a day, every day, all year.

With that in mind, Michigan's Highway Safety Plan is not a bureaucratic document or an abstract formality. It is a concrete guide to show how Michigan is going to reduce those deaths. There are more than one thousand precious lives to be saved, and it is a sacred trust to find the best ways to do that. A 1 percent improvement means half a week when no one loses their life; if we can document how we did it and show the rest of the country, that is more than four hundred lives; teach the world, and that is twelve thousand lives. We cannot imagine the suffering of a thousand deaths, but we can share in the joy of every life saved.

The goal for 2009 is to have the fewest deaths of any year on record.

## PROCESS DESCRIPTION

OHSP's Highway Safety Plan (HSP) for fiscal year 2009 combines continuing efforts to reduce ongoing problems, countermeasures to emerging issues, and new opportunities to address traffic crashes through innovative techniques and technology.

A report published in 2007 for the National Cooperative Highway Research Program conducted a review of four states with exemplary traffic safety records, one of them being Michigan. The report, entitled "Creating a Traffic Safety Culture - A Case Study of Four Successful States," highlighted the key elements in the four states for creating this "safety culture." OHSP hopes to promote this safety culture in communities at the local level, through the establishment of more comprehensive traffic safety programs that build upon the county-wide overtime enforcement grants of previous years. These comprehensive traffic safety programs will utilize the ever-improving stream of traffic crash data to answer the key questions of how, why, when, and where crashes are occurring, who is involved, what countermeasures can be implemented, and most importantly, how to apply limited federal, state, and local

resources to reduce or mitigate them. Most importantly, it will encourage the creation of new partnerships and enhancement of existing ones.

Michigan's budgetary situation has reinforced the need for effective programs within tight constraints. OHSP's range of available options requires a focus on programs with demonstrated effectiveness. Scarce resources at all levels of government underscore the need for flexible and productive partnerships. OHSP cannot excel without the partners whose teamwork and commitment have made possible the attainment of shared traffic safety goals.





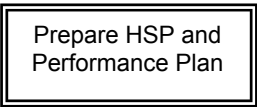
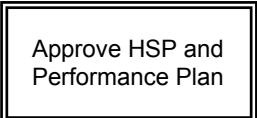
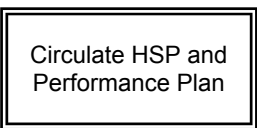


### **Pre-planning Steps**

Implementation of one year's HSP occurs in conjunction with planning for the next. Planning begins with an "after action review" of the previous year, identifying successful areas and those in need of improvement. OHSP then makes any necessary revisions to the planning process and calendar (Exhibit 1). This pre-planning ensures that OHSP's program development remains dynamic, efficient, and effective.

Each step of the planning process is identified below:

1. Problem Identification
2. Goal Determination and Analysis
3. Traffic Safety Partner Input
4. Strategy Selection
5. Budget Development
6. Project Selection
7. Performance Measures

## EXHIBIT 1 – HSP Planning Outline

<b>FY2009 HSP PLANNING CALENDAR</b>		
<b>ACTION</b>	<b>DATES</b>	<b>DETAILS</b>
	<b>NOVEMBER DECEMBER</b>	<ul style="list-style-type: none"> <li>❖ Review past years' activity</li> <li>❖ Review current year's activity</li> <li>❖ Review crash data</li> <li>❖ Review state and national priorities</li> <li>❖ Identify problem areas</li> <li>❖ Identify long-term goals (5 years)</li> <li>❖ Identify short-term goals (1 year)</li> </ul>
	<b>JANUARY FEBRUARY</b>	<ul style="list-style-type: none"> <li>❖ Meet with program partners, obtain input</li> <li>❖ Review planning session output</li> <li>❖ Review data specific to the program</li> <li>❖ Review quantitative goals</li> <li>❖ Outline grant opportunities</li> <li>❖ Identify long-term strategies (&gt;3 years)</li> </ul>
	<b>MARCH APRIL</b>	<ul style="list-style-type: none"> <li>❖ Consult with current and prospective grantees</li> <li>❖ Identify short-term strategies (1 year)</li> <li>❖ Program presentations to management and staff</li> <li>❖ Create draft Grant Development Plans</li> <li>❖ Establish draft budget</li> </ul>
	<b>MAY JUNE</b>	<ul style="list-style-type: none"> <li>❖ HSP management team reviews programs and budgets</li> <li>❖ GDPs finalized</li> <li>❖ HSP budget finalized</li> <li>❖ Notify grantees of grant timelines</li> <li>❖ Send grantees grant templates</li> </ul>
	<b>JUNE</b>	<ul style="list-style-type: none"> <li>❖ Create in-house grants</li> <li>❖ Monitor grant development process</li> <li>❖ Create draft performance plan</li> <li>❖ Create draft HSP</li> </ul>
	<b>JULY</b>	<ul style="list-style-type: none"> <li>❖ Administrative review of performance plan</li> <li>❖ Administrative review of HSP</li> <li>❖ Approve FY2009 performance plan and HSP</li> </ul>
	<b>AUGUST</b>	<ul style="list-style-type: none"> <li>❖ Print and distribute performance plan and HSP to: NHTSA, FHWA, State and Local Agencies</li> <li>❖ Post to web site</li> </ul>
	<b>SEPTEMBER OCTOBER</b>	<ul style="list-style-type: none"> <li>❖ Approve and start implementation of FY2009 grants.</li> <li>❖ Conduct grant orientation meetings</li> </ul>
	<b>NOVEMBER</b>	<ul style="list-style-type: none"> <li>❖ Annual evaluation report prepared for FY2008 HSP</li> </ul>

## Plan Organization

The performance plan follows the steps of OHSP's planning process. Consultation of crash data, program partners, and research continues throughout each step. OHSP staff include emerging information into program development and implementation whenever possible.

### 1. PROBLEM IDENTIFICATION

Problem identification is a key function of the planning process. Problems cannot be solved without knowing what they are. Identifying the largest problems and their components directs attention to where progress is possible.

Crash data is the foundation of problem identification. Data analysis continues year-round, with intensified efforts early in the HSP and GDP development processes. There were two primary sources for crash analysis in this year's planning cycle:

Michigan Traffic Crash Facts: Through a partnership with the University of Michigan Transportation Research Institute (UMTRI), a compilation of Michigan's traffic crash data is completed annually and published as the Michigan Traffic Crash Facts. Crash Facts back to 1992 are available at <http://www.michigantrafficcrashfacts.com> web site.

Direct data analysis: With improvements in the quality and availability of electronic crash data, OHSP can go directly to the crash database, running queries of the updated data without intermediaries. Having reached the last year of the previous Highway Safety Plan's goals, FY2009's planning started with a *tabula rasa* look at the crash data, leading to the goals listed below. In addition to statewide analysis, OHSP provides Safe Communities and partners with information and tools for local problem identification.

The problem identification process incorporates previous years' analyses along with updated data, staff expertise, outside research, and state and national priorities, including the statewide Strategic Highway Safety Plan.

### 2. GOAL DETERMINATION AND ANALYSIS

Goals are statements of program intent or purpose, consistent with the mission of the organization. 2009 will be the first year in a new set of long-term targets, setting goals for reducing the factors most prevalent in severe crashes. This list of goals was based on the top factors involved in fatal crashes, determined by previous years' experience, crash projections, the best available data and research, and attention to those areas for which OHSP has the responsibility and capacity to respond. Quantitative targets were based on projections from five-year crash trends.

The following section begins with a summary of Michigan traffic crash statistics from 2003 through 2007 (the most current data available). OHSP's revised long-term goals through 2012 follow, along with annual benchmarks. It should be understood that there will be limited time in FY2009 to affect 2008 benchmarks.

### Crash Data Comparison - 2003-2007

	2003	2004	2005	2006	2007	% Change 03-07
Total Crashes	391,485	373,028	350,838	315,322	324,174	-17%
Fatal Crashes	1,172	1,055	1,030	1,002	987	-16%
People Injured	105,555	99,680	90,510	81,942	80,576	-24%
People Killed	1,283	1,159	1,129	1,084	1,084	-16%
Death Rate (100M VMT)	1.28	1.14	1.09	1.05	1.04	-19%
Fatal Crash Rate (100M VMT)	1.17	1.06	1.00	0.97	.95	-19%
VMT (Billions)	98.2	100.2	101.8	103.2	104.0	+6%
Registered Vehicles (Millions)	9.92	9.93	9.69	8.70	8.33	-16%
Population (Millions)	10.08	10.08	10.11	10.12	10.09	+0%

2007 crash numbers were largely similar to 2006, remaining at a post-WWII low. The largest difference between the two years was crashes on winter-weather roads. Snowfall came late in the winter of 2006-2007, and while the winter had the usual number of fatal crashes, most of them came in early 2007 rather than late 2006. Michigan ranks fifth in the nation for safety belt use, behind the Pacific-coast states.

OHSP remains committed to maintaining excellence and achieving aggressive goals. Continuous improvement in established programs and development of innovative approaches to traffic safety will save further lives on Michigan roadways. The proper response to exceptional success is to try to repeat it.

Goals for 2008-2012 are based on 2003-2007 data. The annual trend in fatalities was a 4% improvement, and this rate has been applied to each area, after adjusting for annual variation.<sup>1</sup> Exceptions are noted individually.

<sup>1</sup> For each goal, an ordinary least squares regression was applied to 2003-2007, yielding a 2007 trendline value that smoothed the year-to-year variance. The 4% annual improvement was deducted from this value. The improvement value is 4% of the previous year, not 4% of the 2007 baseline year, so 2009's goal is 96% of the 2008 goal, and so on. Crash data for goals came from a query of the live crash database, which has received updates since the annual Michigan Traffic Crash Facts. Fatality and injury counts may differ from previously published sources due to updates.

## EXHIBIT 2: OHSP FY2009 Goals at a Glance

	2003 actual	2007 actual	2008 goal	2009 goal	2010 goal	2011 goal	2012 goal
fatalities	1,283	1,084	1,014	973	934	896	860
fatalities per 100 million vehicle miles traveled	1.31	1.04	0.97	0.93	0.89	0.86	0.82
Injuries	105,555	80,576	75,062	72,049	69,158	66,382	63,718
fatalities and incapacitating injuries ("KAs")	11,230	8,582	7,992	7,671	7,363	7,068	6,784
KAs involving alcohol	2,143	1,711	1,640	1,575	1,511	1,451	1,393
fatalities to unrestrained vehicle occupants	346	252	225	216	207	199	191
observed daytime safety belt use (front seat occupants)	84.8%	93.7%	96.0%	97.0%	97.0%	97.0%	97.0%
KAs to vehicle occupants ages 0 to 8	240	131	110	106	102	98	94
KAs at intersections	3,781	2,750	2,571	2,468	2,369	2,274	2,183
KAs involving lane departure	4,102	3,324	3,080	2,956	2,838	2,724	2,614
KAs on local roads	6,964	5,130	4,748	4,557	4,374	4,199	4,030
KAs involving motorcycles	806	991	954	954	954	954	954
KAs to pedestrians	762	600	578	555	533	512	491
KAs to males	6,183	4,945	4,637	4,451	4,272	4,101	3,936
KAs involving drivers ages 16 to 20	2,680	1,947	1,761	1,691	1,623	1,558	1,495
KAs involving drivers ages 21 to 24	1,719	1,244	1,157	1,110	1,065	1,023	982
KAs from 3pm to 6pm	2,248	1,722	1,612	1,547	1,485	1,425	1,368
KAs from midnight to 3am	1,456	881	770	739	710	681	654
KAs from noon Friday to noon Sunday	3,677	2,928	2,754	2,643	2,537	2,435	2,338

### Traffic Fatalities:

The single most important goal in traffic safety is to reduce traffic fatalities. Whatever other factors may be considered, the final measure of success must always be the lives of Michigan citizens.

Before 2002, Michigan had not had fewer than 1,300 traffic fatalities since 1945. Every year since 2002 has had fewer than 1,300, dropping below 1,200 in 2004 and 1,100 in 2006. Michigan has not been below 1,000 traffic fatalities since 1943, the oldest year on record. Michigan's goal is for 2009 to have the fewest traffic fatalities in history, ever working towards zero.

Traffic Fatalities					
Year	Actual		Year	Goal	Actual
2003	1,283		2008	1,014	
2004	1,159		2009	973	
2005	1,129		2010	934	
2006	1,084		2011	896	
2007	1,084		2012	860	

### Vehicle Mileage Death Rate:

The Vehicle Miles Traveled ("VMT," how many miles are driven on the state's roads each year) death rate adjusts this worst outcome of a crash by a common exposure variable. The VMT death rate has been a consistent measure used nationally for many years, and it provides a reliable means of tracking progress over a long period of time.

If fatalities are decreasing while miles driven are increasing, the state is getting safer faster than the simple fatality count suggests. If both are decreasing, then some of the improvement is just a factor of people driving less, rather than the roads' being any safer. Michigan's previous goal was to reach 1.0 by 2008.

VMT death rate					
Year	Actual		Year	Goal	Actual
2003	1.31		2008	0.97	
2004	1.16		2009	0.93	
2005	1.11		2010	0.89	
2006	1.05		2011	0.86	
2007	1.04		2012	0.82	

(# fatalities/100 million VMT)

### Traffic Injuries:

While being hurt in a crash is better than being killed, we would prefer for people not to be hurt either. Failing that, making the injuries less severe is also a better outcome.

Crash avoidance seeks to reduce crashes entirely: no one crashed, no one was hurt, no one died. Crash mitigation takes some number of crashes as a given

and seeks to reduce how bad the crash is. Either approach, and they are often combined, reduces total suffering.

Traffic Injuries					
Year	Actual		Year	Goal	Actual
2003	105,555		2008	75,062	
2004	99,680		2009	72,049	
2005	90,510		2010	69,158	
2006	81,942		2011	66,382	
2007	80,576		2012	63,718	

### Fatalities and Incapacitating Injuries (“KAs”):

Michigan classifies injuries according to the KABCO scale: K: fatal, A: incapacitating, B: non-incapacitating, C: possible, and O: none. In the bluntest terms, you can walk away from a crash with a B or C injury, but KAs will be driven away in an ambulance or a hearse.

Fatal and incapacitating injuries are the most consistent measure of severe crashes available for traffic safety planning. They include the most worrisome crashes with the greatest harm, and they happen in large enough numbers to perform meaningful analysis.

Fatalities and Incapacitating Injuries (“KAs”)					
Year	Actual		Year	Goal	Actual
2003	11,230		2008	7,992	
2004	10,470		2009	7,671	
2005	9,649		2010	7,363	
2006	8,732		2011	7,068	
2007	8,582		2012	6,784	

### Alcohol-Impaired Driving

Had-been-drinking (HBD) crashes are disproportionately more severe than other crashes, constituting 30-40% of fatal crashes each year. Despite decades of education and enforcement efforts, alcohol-impairment remains a devastating traffic safety and public health problem.

Other forms of impairment are also dangerous, but they are less apparent in the crash data and often connected to alcohol when they are present. A few percent of KA injuries will involve drug-impairment without alcohol. Some percentage is the results of drowsy or distracted driving, but the data there is poor because they are difficult to observe after the fact.

KAs involving alcohol					
Year	Actual		Year	Goal	Actual
2003	2,143		2008	1,640	
2004	2,040		2009	1,575	
2005	1,943		2010	1,511	
2006	1,806		2011	1,451	
2007	1,711		2012	1,393	

## Safety Belt Use

Safety belts are the most effective means of reducing injury severity and preventing death in the event of a crash. Reducing non-use of safety belts will substantially improve crash survivability.

Unrestrained deaths follow changes in the observed safety belt use rate, but the reader will note that the percentage of people killed unrestrained is much higher than the percentage of people unrestrained. This is partly due to the life-saving effect of belts, partly to lower risk-aversion among people who do not use safety belts, and partly to differences in observed use and actual use. In compliance with federal guidelines, Michigan observes daytime front-seat occupants in an area covering at least 85% of the state's population. Belt use may be lower at night, in the back seat (where it is not legally required above age 16), or in more rural counties outside the survey area. Even if observed use hits 100%, there will be room for improvement.

Before the HSP went to print, Michigan reached a new record for safety belt use. This was higher than the planned long-term goal, and there are no known benchmarks for realistic progress beyond 95%. The goal has been set to maintaining this record, pending consideration of how attainable and sustainable further gains are.

Fatalities to unrestrained vehicle occupants					
Year	Actual		Year	Goal	Actual
2003	346		2008	225	
2004	296		2009	216	
2005	262		2010	207	
2006	249		2011	199	
2007	252		2012	191	

(motor vehicle occupants only, excludes unknown and unavailable)

Safety belt use					
Year	Actual		Year	Goal	Actual
2003	84.8%		2008	96.0%	
2004	90.5%		2009	97.0%	
2005	92.9%		2010	97.0%	
2006	94.3%		2011	97.0%	
2007	93.7%		2012	97.0%	

(observed, daytime, front seat occupants)

## Child Passenger Safety

Safety belts are designed for adults. Children under eight need a booster seat for the belt to fit properly, and children under four need a child restraint. Parents sometimes do not know what the right seat is, how to install it properly, or why they are necessary. Officers may not have much more training, and it is difficult to observe violations of child safety seat laws. Children are often under-protected in the event of a crash.

The effects of child passenger safety show up more in injury than fatality data. The belt alone is often enough to prevent a death, but the proper child restraint is what keeps that crash from causing massive internal injuries, particularly to the neck, spine, and intestines.

<b>KA injuries, passenger vehicle occupants ages 0-8</b>					
<b>Year</b>	<b>Actual</b>		<b>Year</b>	<b>Goal</b>	<b>Actual</b>
2003	240		2008	110	
2004	191		2009	106	
2005	162		2010	102	
2006	130		2011	98	
2007	131		2012	94	

(excludes motorcycles)

### **Intersection Crashes**

While most drivers can keep a car going in a straight line, problems occur when cars interact with each other. The severity of intersection crashes is exacerbated by the risk of angle (T-bone) collisions during turns. About one-third of all crashes happen in or near intersections.

Intersection problems can be related to engineering, behavior, or exposure. OHSP will be supporting some intersection-specific efforts, but any program working to improve safety in urban areas will affect intersection crashes.

<b>KAs at intersections</b>					
<b>Year</b>	<b>Actual</b>		<b>Year</b>	<b>Goal</b>	<b>Actual</b>
2003	3,781		2008	2,571	
2004	3,533		2009	2,468	
2005	3,188		2010	2,369	
2006	2,869		2011	2,274	
2007	2,750		2012	2,183	

(# of KAs coded as "related to or within 150' of intersection")

### **Lane Departure**

Most fatal crashes happen when a car leaves its lane. The driver steers into a ditch, misses a turn, crosses the center line, or otherwise puts his car into conflict with a large object. "Lane departure" includes not just roadway departure, but also sideswipes and highly dangerous head-on crashes.

Lane departure is connected to drunk, drowsy, and distracted driving. Any sort of impairment makes someone more likely to drift or miss a turn. Staying coherent and keeping your eyes on the road is a good way to keep your car on the road.

<b>KAs involving lane departure</b>					
<b>Year</b>	<b>Actual</b>		<b>Year</b>	<b>Goal</b>	<b>Actual</b>
2003	4,102		2008	3,080	
2004	3,795		2009	2,956	
2005	3,507		2010	2,838	
2006	3,333		2011	2,724	

2007	3,324	2012	2,614	
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(The query for this variable is complex, including roadway departure, sideswipe and head-on crashes, and collisions with parked cars.)

### City-County Roads

While most miles are driven on state roads, most serious crashes happen on local roads. Local roads present a variety of challenges for all aspects of traffic safety, with the majority of intersections and miles of pavement.

OHSP has few operations that address local roads specifically, but most enforcement activity takes place there. With most serious crashes taking place on local roads, any effort directed to the whole will affect this part, and anything targeting a high-crash location is almost certain to take place on local roads.

KAs on local roads					
Year	Actual		Year	Goal	Actual
2003	6,964		2008	4,748	
2004	6,236		2009	4,557	
2005	5,845		2010	4,374	
2006	5,230		2011	4,199	
2007	5,130		2012	4,030	

(# KAs in crashes coded as: "County road, city street, or unknown")

### Motorcycles

Motorcycles are the only area of traffic safety consistently getting worse. Motorcycle ridership is increasing, and so are motorcycle crashes and deaths. Some of this effect is from increased exposure: the same crashes happen, only with motorcycles instead of cars. Some is from decreased protection: when those crashes happen, cars bend but humans break. Rider information also suggests that young motorcyclists are not seeking proper training and licensure, while older riders are using more powerful motorcycles than they may be used to. The largest increase in motorcycle use is among older riders, which also increases the effect of lower crash survivability: older bodies are even more likely to break.

The goal below reflects the 2007 trend value. OHSP will work to hold the line against continued increases.

KAs involving motorcycles					
Year	Actual		Year	Goal	Actual
2003	806		2008	954	
2004	779		2009	954	
2005	933		2010	954	
2006	835		2011	954	
2007	991		2012	954	

(any KAs in the crash, not just to motorcyclists)

### Pedestrians

Pedestrians are about one-eighth of traffic fatalities each year. There are relatively few effective behavioral interventions for improving pedestrian safety. Some of them

relate to helping drivers avoid pedestrians, while others hope to keep pedestrians out of harm's way. An issue for pedestrian safety education is the difference between those hit and those killed. Due to relatively high exposure, those most likely to be hit are young non-drivers during the day; due to bodily frailty and high alcohol and drug use, older pedestrians at night are more likely to be hit and killed.

KAs to pedestrians					
Year	Actual		Year	Goal	Actual
2003	762		2008	578	
2004	785		2009	555	
2005	701		2010	533	
2006	637		2011	512	
2007	600		2012	491	

### Men

Traffic safety is fundamentally a male problem. Most of the risky behaviors that can kill you or those around you are more common in men. Men buckle up less, drink and drive more, speed more, and drive more motorcycles. Men crash more and die more. Young men are even worse.

Federal surveys of travel trips estimate that men do about 61 percent of the nation's driving, so we should expect men to be in more crashes. Since men are roughly 50 percent to 75 percent of any crash problem, this may reveal that a problem is not specific to men or highlight that men die even more than their exposure would predict. Traffic fatalities are consistently two-thirds or more male, so reducing fatalities mostly means reducing the number of men killed. Even when men are not the problem group, because they do most of the driving, they are the key audience for traffic safety messages.

KAs to males					
Year	Actual		Year	Goal	Actual
2003	6,183		2008	4,637	
2004	5,874		2009	4,451	
2005	5,471		2010	4,272	
2006	5,016		2011	4,101	
2007	4,945		2012	3,936	

### Young Drivers

Younger drivers crash more often. Superior reflexes and more practice using cell phones do not overcome inexperience and higher risk taking. Crash survivability is not as bad in youth, because young bodies break less and heal more quickly, but making more severe errors can offset this. Of those killed in crashes with teen drivers, about one-third are the drivers themselves, one-third are their passengers, and one-third are other drivers, passengers, and pedestrians.

Drivers under age eighteen face graduated driver licensing, which allows gradual exposure to greater driving demands under structure and supervision. Crash involvement per driver then peaks at age eighteen, with no supervision, more

exposure, and still incomplete driving skills. Persons under age twenty-one may not drink, which is not to say that all abstain. Alcohol-involved crashes then peaks at age twenty-one, with increased opportunity. As responsibilities increase and brain development completes in the mid-twenties, crash involvement drops precipitously. By age twenty-five, the most dangerous years are past, and after thirty-five risk is average.

KAs involving drivers ages 16 to 20					
Year	Actual		Year	Goal	Actual
2003	2,680		2008	1,761	
2004	2,488		2009	1,691	
2005	2,212		2010	1,623	
2006	1,883		2011	1,558	
2007	1,947		2012	1,495	

KAs involving drivers ages 21 to 24					
Year	Actual		Year	Goal	Actual
2003	1,719		2008	1,157	
2004	1,622		2009	1,110	
2005	1,503		2010	1,065	
2006	1,274		2011	1,023	
2007	1,244		2012	982	

### Afternoon Rush Hour

High exposure leads to high crash numbers. At the end of the work- and school-day, there are more cars on the road, with more crashes and deaths. It is not disproportionately horrible, but it is Michigan's time with the most deaths.

The morning rush hour does not show as much of a peak. Late-day drivers are more likely to be tired and less likely to be caffeinated. This becomes worse over the week as sleep deprivation builds up, with Friday being the worst at this time slot. Drivers have shorter tempers and attention spans after a long day. Dinnertime and happy hour are the peak times for alcohol-involvement for drivers past their twenties. Restraint use is also lower in the evening than the morning.

KAs from 3pm to 6pm					
Year	Actual		Year	Goal	Actual
2003	2,248		2008	1,612	
2004	2,214		2009	1,547	
2005	2,026		2010	1,485	
2006	1,726		2011	1,425	
2007	1,722		2012	1,368	

### Nighttime Driving

Traffic is light late at night, but you will find no time with more severe crashes or higher alcohol-involvement rates. Midnight to three AM includes bar closing time,

and it is the peak time for drunk driving. Alcohol behaves synergistically with drowsiness, making late-night drivers even less competent.

After four AM, traffic is too light to have many crashes. Alcohol starts heading up around 9pm, but does not start spiking until midnight. Alcohol-involved crashes peak in the 2am to 3am hour, when bars close.

KAs from midnight to 3am					
Year	Actual		Year	Goal	Actual
2003	1,456		2008	770	
2004	1,034		2009	739	
2005	1,000		2010	710	
2006	913		2011	681	
2007	881		2012	654	

### Weekend Driving

Serious crashes spike almost every weekend. Increased alcohol use, nighttime driving, visiting unfamiliar areas, traffic to popular spots, and decreased attention all contribute to a higher rate of serious crashes on Friday and Saturday evenings.

Noon to noon was selected as the crash peak to include both Friday after-work and Saturday/Sunday night. The Saturday night crash peak actually takes place on Sunday morning (after midnight), while the weekend peak starts early Friday afternoon as people leave work or school.

KAs from noon Friday to noon Sunday					
Year	Actual		Year	Goal	Actual
2003	3,677		2008	2,754	
2004	3,504		2009	2,643	
2005	3,233		2010	2,537	
2006	3,002		2011	2,435	
2007	2,928		2012	2,338	

## 3. TRAFFIC SAFETY PARTNER INPUT

OHSP solicits and receives input from traffic safety partners both directly and indirectly throughout the year. OHSP applies this wealth of knowledge to HSP development and project selection.

The importance of input from traffic safety partners cannot be overstated. Meetings and conferences, progress reports from grantees, feedback on the grant development system, and discussions in person, by telephone, and over e-mail all provide valuable information that works its way into OHSP programs. Simple conversations have led to significant improvements in programs that save lives.

### Governor's Traffic Safety Advisory Commission

The Governor's Traffic Safety Advisory Commission (GTSAC) consists of the Governor (or a designee); the Directors (or their designees) of the Departments of Community Health, Education, State, State Police, and Transportation, the Office of Highway Safety Planning, and the Office of Services to the Aging' and three; local representatives from the county, city, and township levels.

In 2004, the GTSAC developed a statewide Strategic Highway Safety Plan, identifying priority areas for all GTSAC member agencies to address as they are able and to set an agenda for traffic safety efforts in the state. Each priority area has an associated Action Team to keep progress moving forward. OHSP participates in these Action Teams and incorporates their information and recommendations into the Highway Safety Plan. This coordinates the OHSP-led Highway Safety Plan with the Strategic Highway Safety Plan that keeps a variety of Michigan agencies working from the same page. This Strategic Highway Safety Plan is under revision as the HSP goes to print.

The GTSAC meets on a bi-monthly basis. Agenda development is a process open to all traffic safety advocates within the state and is available through OHSP's web site (<http://www.michigan.gov/ohsp-gtsac>). Communication between GTSAC members and among traffic safety advocates throughout Michigan is also accomplished through a web site and LISTSERV<sup>®</sup> that has more than 200 members. Listserv members receive GTSAC and traffic safety news and information.

### **Program Area Network Meetings**

In addition to the GTSAC Action Teams, OHSP program staff have traffic safety networks across the state and nation that help generate ideas and identify appropriate strategies to solve traffic safety problems. Meetings with partners across the state allow OHSP to determine where resources are available to leverage, which partners have enthusiasm or unique expertise, and whether and why model programs are working (or not) in Michigan communities.

### **Traffic Safety Summit**

The annual Michigan Traffic Safety Summit is the state's central event for traffic safety information-sharing and networking. It allows OHSP and other partners to promote promising ideas, solicit input and feedback from partners, and showcase programs from the local, state, and national levels.

### **Additional Planning Resources**

OHSP consults a wide variety of resources for problem identification, priority setting, program selection, and grant awards. Some of these resources include:

- Michigan's statewide Strategic Highway Safety Plan
- The Michigan Department of State Police Strategic Plan and other state and local plans.

- National plans, priorities, and programs, including those from the United States Department of Transportation (USDOT), Federal Highway Administration (FHWA), and National Highway Traffic Safety Administration (NHTSA).
- Academic publications and research reports
- USDOT, American Association of State Highway and Transportation Officials (AASHTO), Transportation Research Board (TRB), and Association of Transportation Safety Information Professionals (ATSIP) publications and conferences.
- Staff participation on various committees and associations, including: GTSAC Action Teams, The Michigan Model for Comprehensive School Health Education Steering Committee, Michigan Section of the Institute of Transportation Engineers, Michigan Association of Chiefs of Police, Michigan Sheriffs' Association, Michigan Pupil Transportation Advisory Committee, Prevention Network, Michigan Coalition to Reduce Underage Drinking, the Michigan Deer Crash Coalition, the Association of Traffic Safety Information Professionals, Michigan Transportation Research Board, and local Traffic Safety Committees.
- Feedback from grantees during the implementation, monitoring, and evaluation of traffic safety projects.
- Input provided by the general public.
- OHSP staff attendance at state, regional, and national conferences and seminars to network and learn about developing tools, trends, and issues.

#### **4. STRATEGY DEVELOPMENT PROCESS**

With problems identified, goals set, and information gathered, the next step in the process is strategy development. The OHSP leadership team reviews all strategies to ensure that they are in line with the overall vision, goals, budget, and direction of the office. Strategy selection is guided by OHSP's key priorities.

##### **FY 2009 OHSP PRIORITIES**

**Improve compliance with Michigan traffic laws** by increasing the public's perceived threat of ticketing, arrest, and conviction.

**Enhance the knowledge and expertise of highway traffic safety professionals** through improved, accessible, and cost-effective education and training.

**Increase the awareness and support of traffic safety as a priority** through improved communications with state and local stakeholders and the public.

**Enhance the availability, timeliness, and use of traffic crash records and other planning data and information** through improvements to the State's traffic records system, research studies, and evaluations.

**Improve the effectiveness of traffic crash emergency medical response and treatment** by strengthening ties to hospitals, emergency medical systems, and injury prevention and treatment.

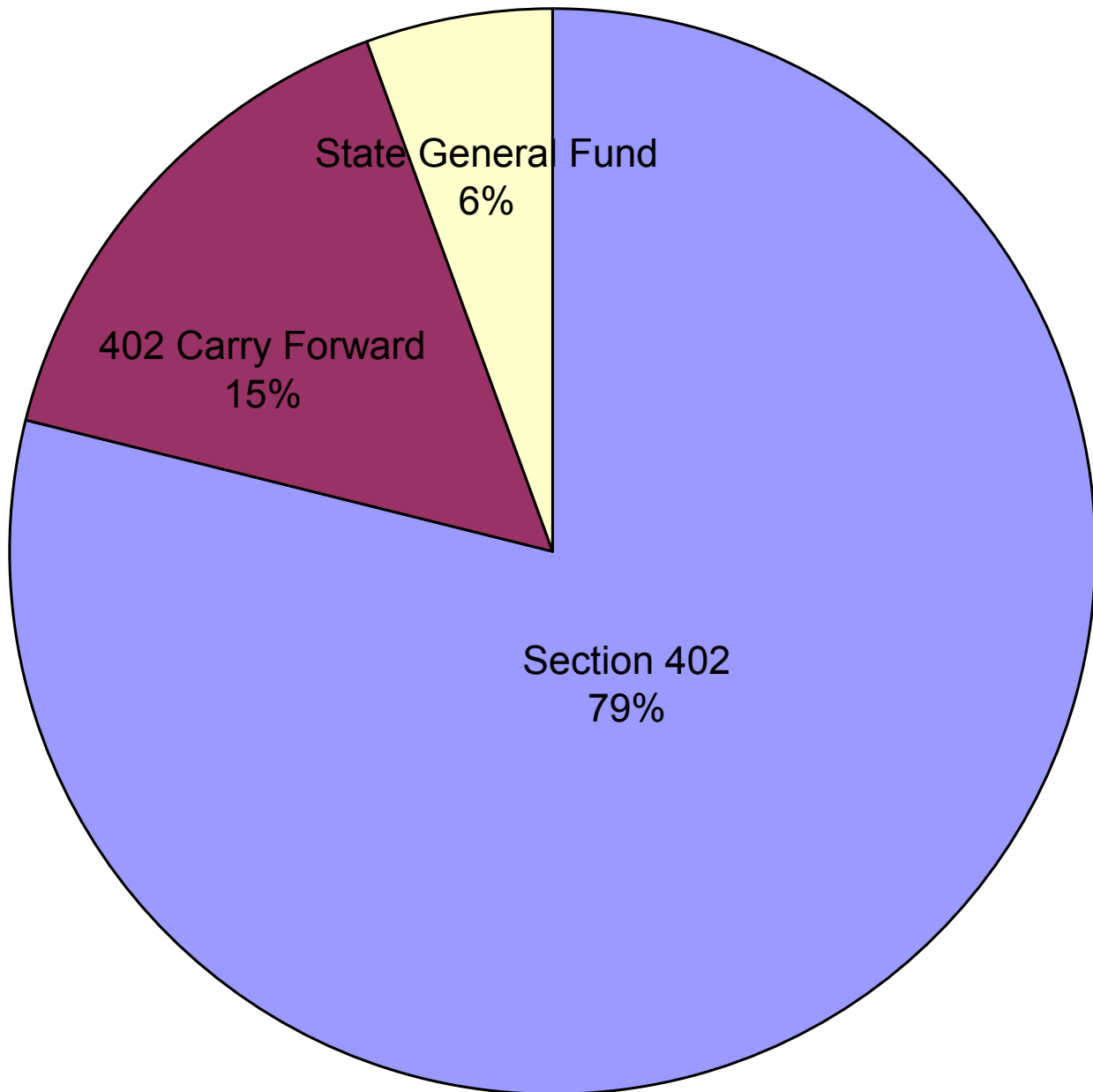
## **5. BUDGET DEVELOPMENT PROCESS**

An estimated Highway Safety Planning budget including projected new and carry-forward funds is developed as staff begin drafting their short-term strategies. Staff work from a principle of zero-base budgeting, determining what resources are needed to solve problems rather than assuming the previous year's programs and budget.

The HSP management team considers the merits of funding requests along with the level of program funding from previous years, funding of other related programs, special funding sources, and long-range goals for the overall program before approving budgets for each program area. Program managers share responsibility for reviewing strategies to determine which should be fully funded, which can proceed with amendments, and which are not feasible. This process can shift the initial budget allocation between program areas to accommodate essential and/or promising projects that warrant special support.

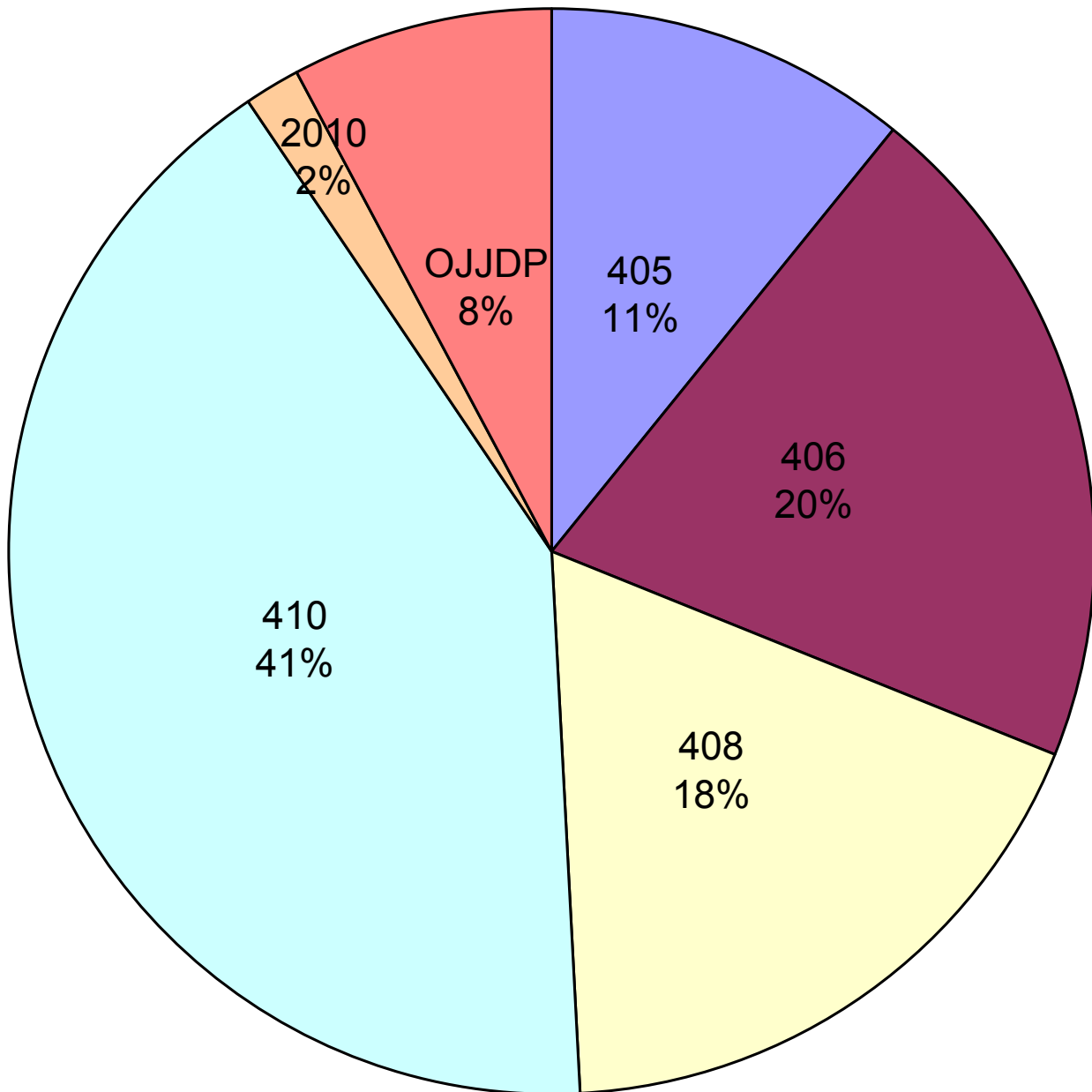
**Exhibits 3, 4, 5, and 6** illustrate the projected sources of funding, program level budgets, and the distribution of funding by type.

**EXHIBIT 3: Unrestricted Program Funding Sources, FY2009 - \$8,837,000**



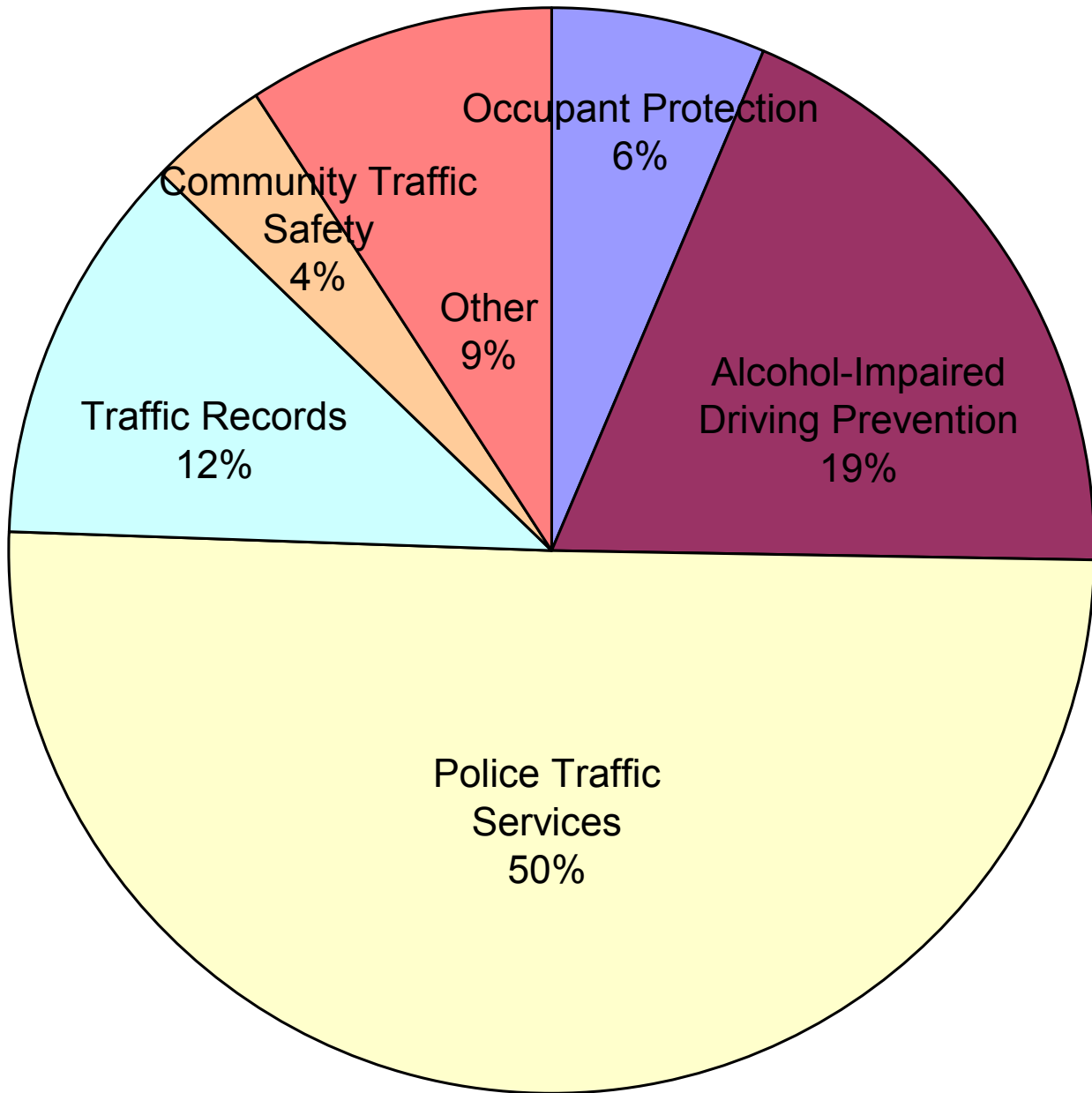
<b>State General Fund</b>	<b>Section 402</b>	<b>402 Carry Forward</b>
\$502,000	\$6,973,000	\$1,362,000

**EXHIBIT 4: Restricted Program Funding Sources, FY2009 - \$9,885,000**



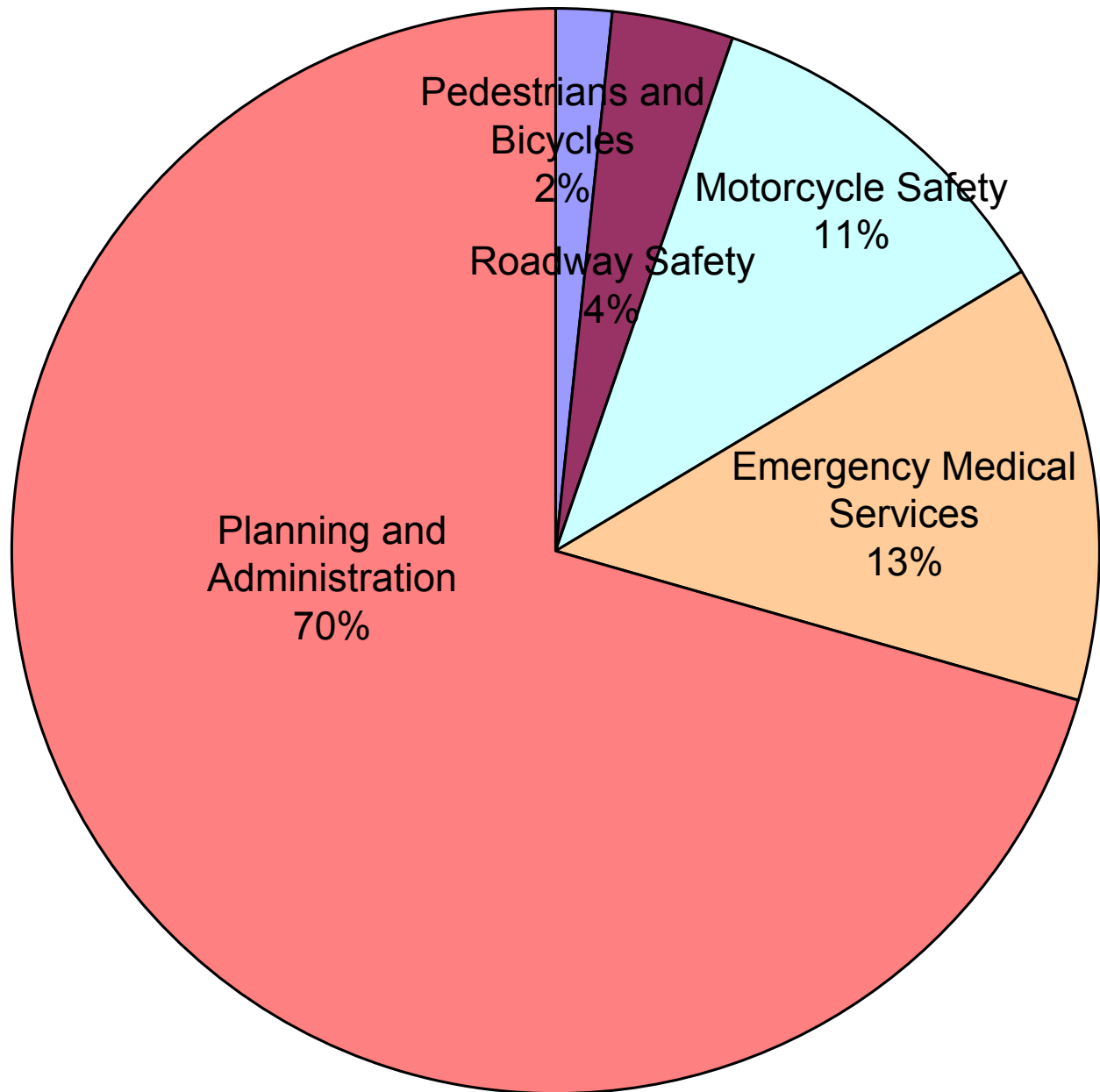
405	406	408	410	2010	OJJDP
\$1,075,000	\$2,000,000	\$1,800,000	\$4,075,000	\$167,000	\$768,000

**EXHIBIT 5: Program Budgets, FY2009 - \$18,722,000**



<b>Alcohol-Impaired Driving Prevention</b>	<b>Community Traffic Safety</b>	<b>Occupant Protection</b>	<b>Police Traffic Services</b>	<b>Traffic Records</b>	<b>Other</b>
\$3,541,000	\$678,000	\$1,212,000	\$9,367,000	\$2,221,000	\$1,703,000

**EXHIBIT 6: "Other" Program Budgets, FY2009 - \$1,703,000**



Driver Education	Emergency Medical	Motorcycle Safety	Pedestrians & Bicycles	Planning & Administration	Roadway Safety
\$0	\$225,000	\$188,000	\$28,000	\$1,200,000	\$62,000

## 6. PROJECT SELECTION PROCESS

Projects are selected based on potential for impacting traffic safety problems and moving Michigan towards the statewide traffic safety goals. OHSP program staff consider:

- the population to be reached;
- the extent of the problem in the target population;
- where and when implementation must take place;
- the expected effectiveness of the proposed project;
- which partners are available and competent to implement projects;
- the most efficient and effective means of implementing programs;
- available funding sources.

Every program must have an impact. If it does not contribute to reducing deaths and injuries on Michigan roadways, OHSP should not be doing it.

In some instances, coordination of programs such as training, public information campaigns, and law enforcement overtime initiatives must take place at the state level in order to be most effective. OHSP oversees these programs. Some projects must take place at the local level, where the community experiencing the problem will have unique competence in addressing its causes.

### Grant Development Plans

Once strategies and program budgets are final and approved, program staff begin preparing their grant development plans (GDPs). The GDP assists in ensuring sufficient preparations are made before program implementation, and it also serves as documentation for that program area. OHSP develops GDPs as a team effort where programs cross network areas, and they serve as valuable internal planning tools. Each GDP contains:

- specific information about the strategy the project will address;
- potential grantees;
- funding levels and sources;
- project schedules.

**Exhibit 7** is an example of the GDP form.

## EXHIBIT 7: FY2009 Strategy and Grant Development Form

Strategy

due April 10, 2008

**Strategy Name**

**Problem Statement**

**HSP Goal/Objective targeted**

**information sources and partners consulted**

**How will this strategy be achieved? Why was this strategy selected?  
(please use more detail if new or involves personnel, equipment, or communications campaigns)**

Year of funding?		Will the strategy continue next year?	
Expected grantee		Estimated budget	\$

Author

Date

Approval

Date

Grant Development Plan

due May 12, 2008

Grantee		Total grant amount	\$
Grant due at OHSP	July 15	Final approval needed by	Sept 15
October 1 start-up required?		Multi-agency grant?	
Split-funded from FY2007?		Split-funded into FY2009?	
Continuation plan needed?		If so, does it have one?	
Funds for Savage's in-house grant?		Funds for Readett's in-house grant?	
For the benefit of locals?		PI&E materials being made?	
Strategic Highway Safety Plan action item?			
Contractual costs?		Personnel costs?	
Indirect costs?		If so, indirect rate	
Program income?		If so, how much?	
Any equipment?		If so, matching funds	
Equipment over \$5,000 per item?		If so, matching funds	
Out-of-state travel?		If so, purpose of travel?	

**Objectives (Specific, Measurable, Attainable, Relevant, Time-bound) (3 or 4 – less is more)**

**Activities** (Do not repeat objectives, but activities should be directly related to them.)

**How will we evaluate this project?** (Ask yourself what method will be used. Is the project measurable? If so, how? See page 201-3 of Dummies guide.)

**Special forms or due dates**

**Supporting documentation**

Funding Source	Amount	Funding Source	Amount
	\$		\$
	\$		\$

Author

Date

Approval

Date

## 7. PERFORMANCE MEASURES

The ability to measure programmatic success is critical to planning and implementing successful programs. Programs that work may be able to be improved; programs that do not must be fixed or scrapped. As explained under Section 2, Goal Determination and Analysis, OHSP tracks many variables to monitor progress on crash problems and set program goals, with revisions as appropriate. Evaluation is an ongoing process throughout the year, supported by trend analysis to determine the significance of changes and the long-term effects of activities.

### **Statewide Performance Measures**

- Traffic fatalities and serious injuries, both absolute and as rates
- The proportion of front seat occupants in all vehicle types using safety belts
- The proportion of fatal crashes involving alcohol and/or drugs
- Compliance with the 10% restriction on P & A program funding
- Progress and results of traffic safety legislation

### **Program Specific Performance Measures**

- Long-term goals specific to each program area (Section 2), along with any intermediate variables that program staff consider important to reaching them
- Contingent on program goals, various grants from each program are targeted for review by program staff to determine both how the grant is being implemented and if the activity is showing the desired results.
- Grantees are required to submit quarterly progress and financial reports on every grant OHSP administers
- Grant monitoring

### ***Key references and resources:***

- Crash data, including Michigan Traffic Crash Facts
- Review of quarterly progress and financial reports
- Annual Evaluation Report
- Evaluation from the annual Traffic Safety Summit
- Public requests for OHSP and traffic safety materials
- Results of state and national research

## GHSA “Bottom Line Performance Measures”

The GHSA’s 2004 guidelines for state highway safety plans includes a list of core performance measures. Most of them are included in or computable from this Performance Plan, but they are collected here for convenience. The list below contains the ten national measures, along with the three other measures needed to compute the rates listed. A new list is under discussion, circulated to the states in a white paper of March 2008; that list may be used in future years, pending approval and the availability of FARS data in time. The following numbers come from the state database.

	2003	2004	2005	2006	2007
Fatalities	1,283	1,159	1,129	1,084	1,084
Fatalities per 100 million VMT	1.28	1.14	1.09	1.05	1.04
Injuries	105,555	99,680	90,510	81,942	80,576
KAs* per 100 million VMT	11.41	10.41	9.44	8.43	8.24
Fatalities per 100 thousand population	12.73	11.50	11.17	10.71	10.74
KAs* per 100 thousand population	111.14	103.46	95.10	85.99	84.93
Alcohol-related fatalities	399	364	360	383	345
Proportion of fatalities involving alcohol	31.1%	31.4%	31.9%	35.3%	31.8%
Alcohol-related fatalities per 100 M VMT	0.41	0.36	0.35	0.37	0.33
Observed safety belt use rate	84.8%	90.5%	92.9%	94.3%	93.7%
Serious injuries	9,920	9,270	8,486	7,618	7,485
100 million VMT	982	1,002	1,018	1,032	1,040
100 thousand population	100.8	100.8	101.1	101.2	100.9

\* KAs: fatalities and serious injuries