

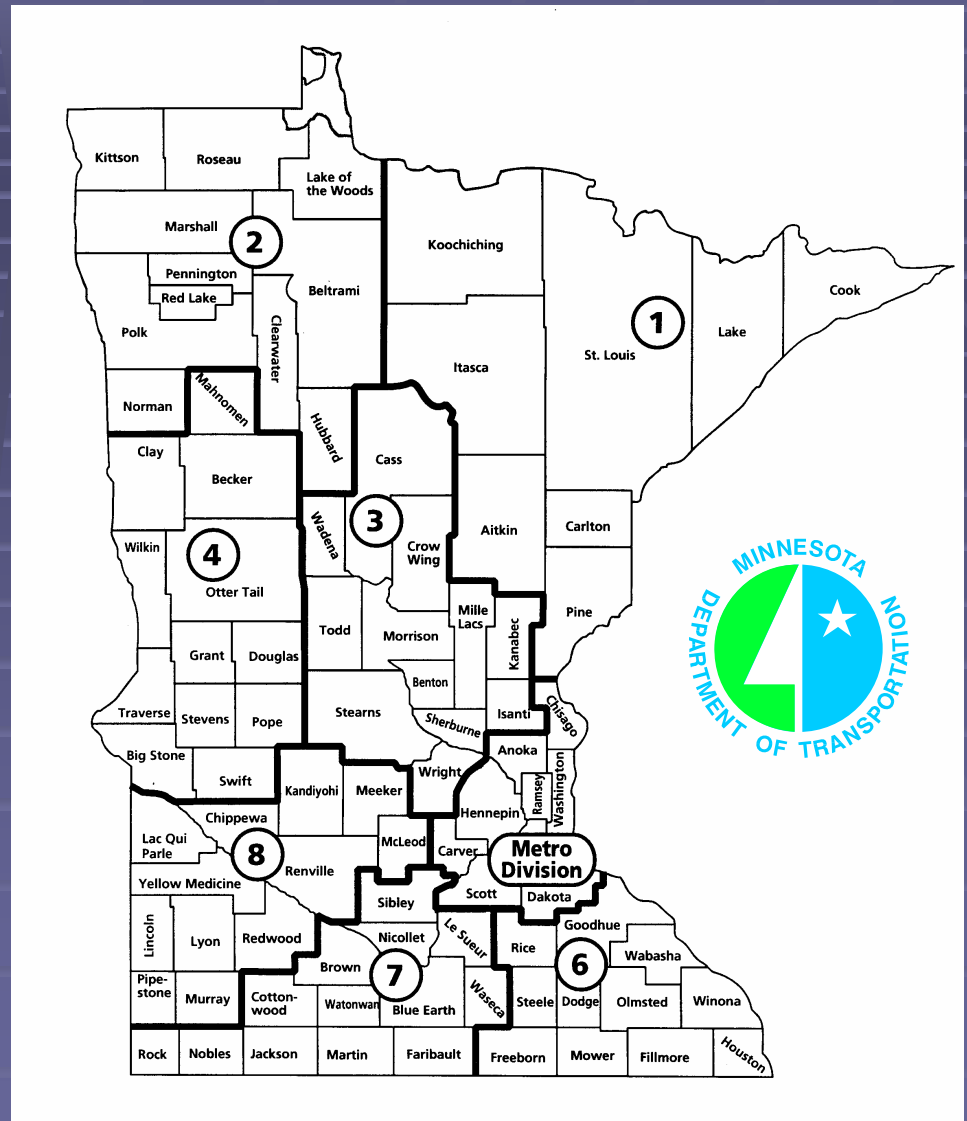
# Safety 2008

Data Through 2007

Report for Statewide Transportation  
Plan and Business Plan Performance  
Measures

May 2008

Report to District Engineers



# SAFETY SUMMARY

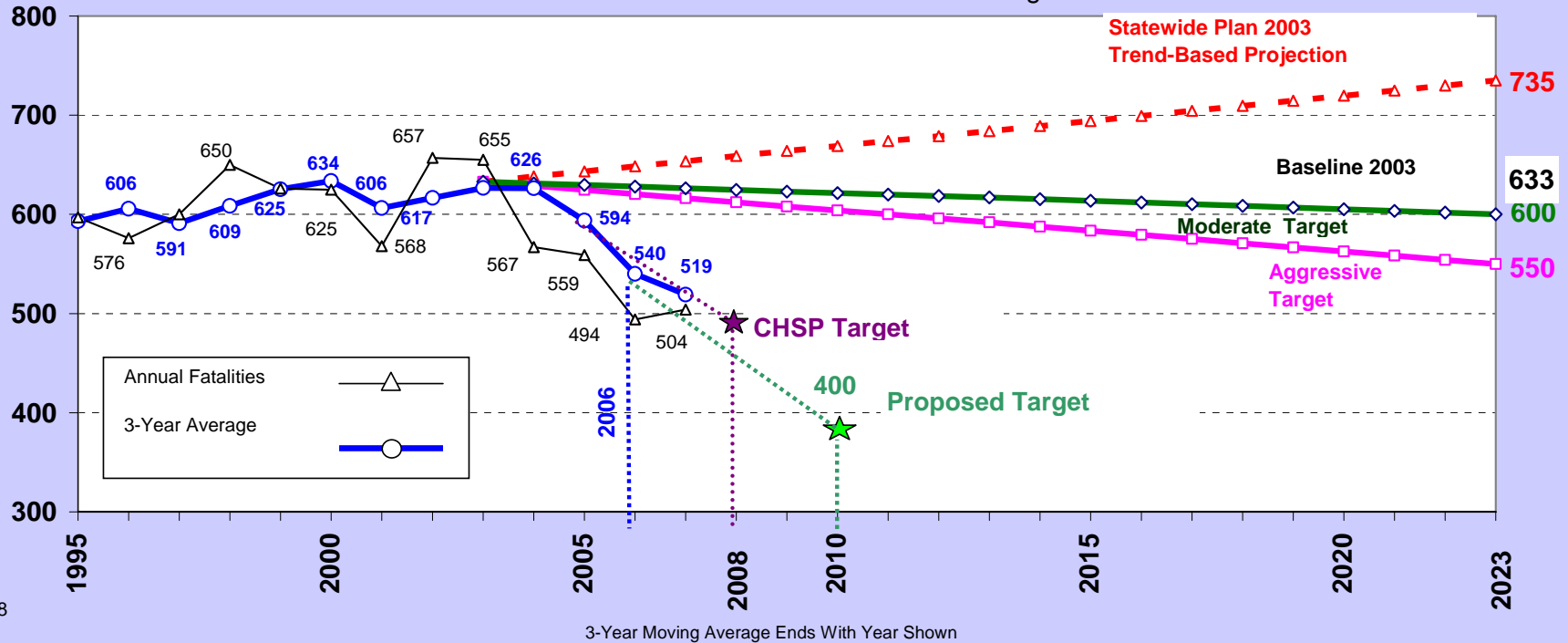
## 3 EXISTING PERFORMANCE MEASURES

- TOWARD ZERO DEATH IS WORKING
  - 504 FATALITIES
  - 3 YEAR AVERAGE TRENDING DOWNWARD
- CRASH RATE CONTINUES TO FALL
- NEW DIRECTION IN SAFETY PROJECTS
  - CURRENT PERFORMANCE MEASURE IS HIGH CRASH COST LOCATIONS

# Mn/DOT Target – Fatalities

## Minnesota Roadway Fatalities - All State & Local Roads

Results vs. 2003 Statewide Plan and CHSP Targets



1-3-08

3-Year Moving Average Ends With Year Shown

### Statewide Transportation Plan Measure:

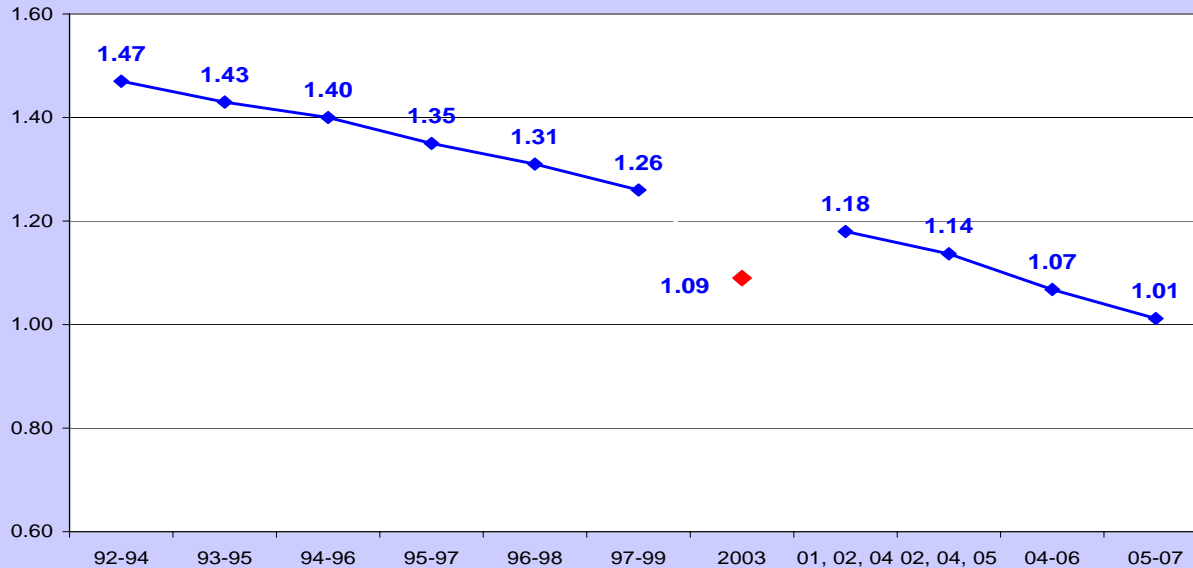
Total fatalities on all state and local roads (3-year average)

### Statewide Transportation Plan Policy 7:

Increase the Safety and Security of Transportation Systems and Their Users.

# Mn/DOT Target – Crash Rate State Trunk Highways

**TH Crash Rate  
Statewide**



## Statewide Transportation Plan Measure:

Annual number of trunk highway crashes per million vehicle miles traveled (VMT) (3-year average plotted on the last year).

## Targets:

Reduce Trunk Highway Crash Rate by 1.5% each year:

- 2004: Reduce Crash Rate to 1.20
- 2005: Reduce Crash Rate to 1.18
- 2006: Reduce Crash Rate to 1.16

**TH Crash Rate by Road Design Type - Annual Average**

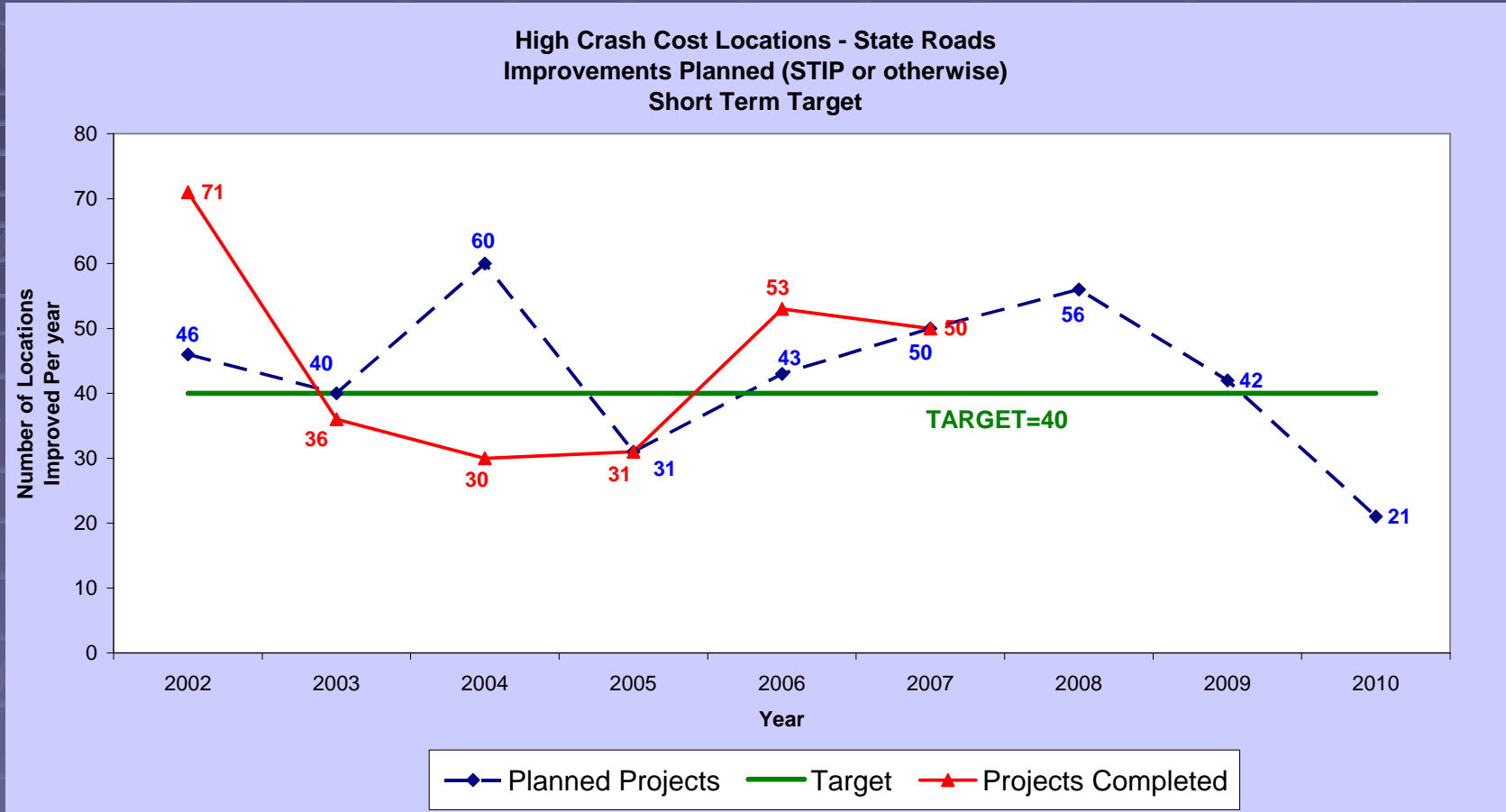
	TH Crash Rate by Road Design Type - Annual Average											2007*		
	92-94	93-95	94-96	95-97	96-98	97-99	2003	01, 02, 04	02, 04, 05	04-06	05-07	Miles	mVMT	VMT%
Interstate	0.99	0.99	1.01	0.97	0.96	0.92	0.89	0.93	0.94	0.89	0.80	913	12723	39%
4-Ln. Div	1.66	1.62	1.57	1.50	1.45	1.42	1.18	1.32	1.27	1.20	1.10	1,364	10298	31%
4-Ln. Undivided & Other	5.96	5.68	5.37	5.14	4.93	4.73	3.42	4.07	3.84	3.48	3.40	146	646	2%
2-Lane	1.53	1.48	1.44	1.40	1.36	1.29	1.10	1.14	1.08	1.00	0.90	9,390	9360	28%
<b>Total</b>	<b>1.47</b>	<b>1.43</b>	<b>1.40</b>	<b>1.35</b>	<b>1.31</b>	<b>1.26</b>	<b>1.09</b>	<b>1.18</b>	<b>1.14</b>	<b>1.07</b>	<b>1.01</b>	<b>11,814</b>	<b>33,027</b>	<b>100%</b>
# crashes	36,702	36,904	37,340	37,133	37,206	36,998	35,081	38,296	37,360	35,556	33,660			
mVMT	24,993	25,824	26,735	27,545	28,496	29,372	32,238	32,571	32,867	33,301	33,274			

**NOTE: Due to systematic problems with data input at Department of Public Safety, OTSO is unable to accurately report on crash rate for 2003.**

Source: Mn/DOT Office of Traffic, Safety, and Operations.

Note: The legal threshold for reporting a crash went up from \$500 to \$1000 on August 1, 1994. mVMT = Million Vehicle Miles Traveled

# High Crash Cost Locations



**Business Plan Target 2004:** Improve 40 High-Crash-Cost Trunk Highway Locations each year.

**Statewide Transportation Plan Policy 7:** Increase the Safety and Security of Transportation Systems and Their Users.

# TOWARD ZERO DEATHS

- TZD IS THE UMBRELLA FOR ALL SAFETY PLANS
- PARTNERSHIPS
  - 21 CURRENT SAFE COMMUNITIES GRANTEES
  - 13 CURRENT SAFE & SOBER GRANTS
  - 3 REGIONAL TZD COALITIONS
- CONFERENCES
- ORGANIZATIONAL STRUCTURE UPDATE

# SHSP

- APPROVED IN JULY 2007
- INTERAGENCY WORKING GROUP
- VERIFIED KEY COMPONENTS OF ORIGINAL PLAN USING NEWER DATA
- DEVELOPED IMPLEMENTATION GUIDELINES FOR EACH ATP
- USED TO SELECT PROJECTS FOR 2009 & 2010
- ALSO USED TO SELECT LOCAL PROJECTS FOR CENTRAL SAFETY FUNDING

# Statewide Fatalities (2001-2005)

Total Fatalities 3,008

Total Vehicle Occupant Fatalities 2,429

## Driver Behavior Based Emphasis Areas

Unbelted (Based on Veh. Occ. Fatalities) 1,271 (52%) 1

Alcohol-Related 1,068 (36%) 2

Speeding-Related 850 (28%) 5

Involved Drivers Under 21 718 (24%) 6

## Infrastructure Based Emphasis Areas

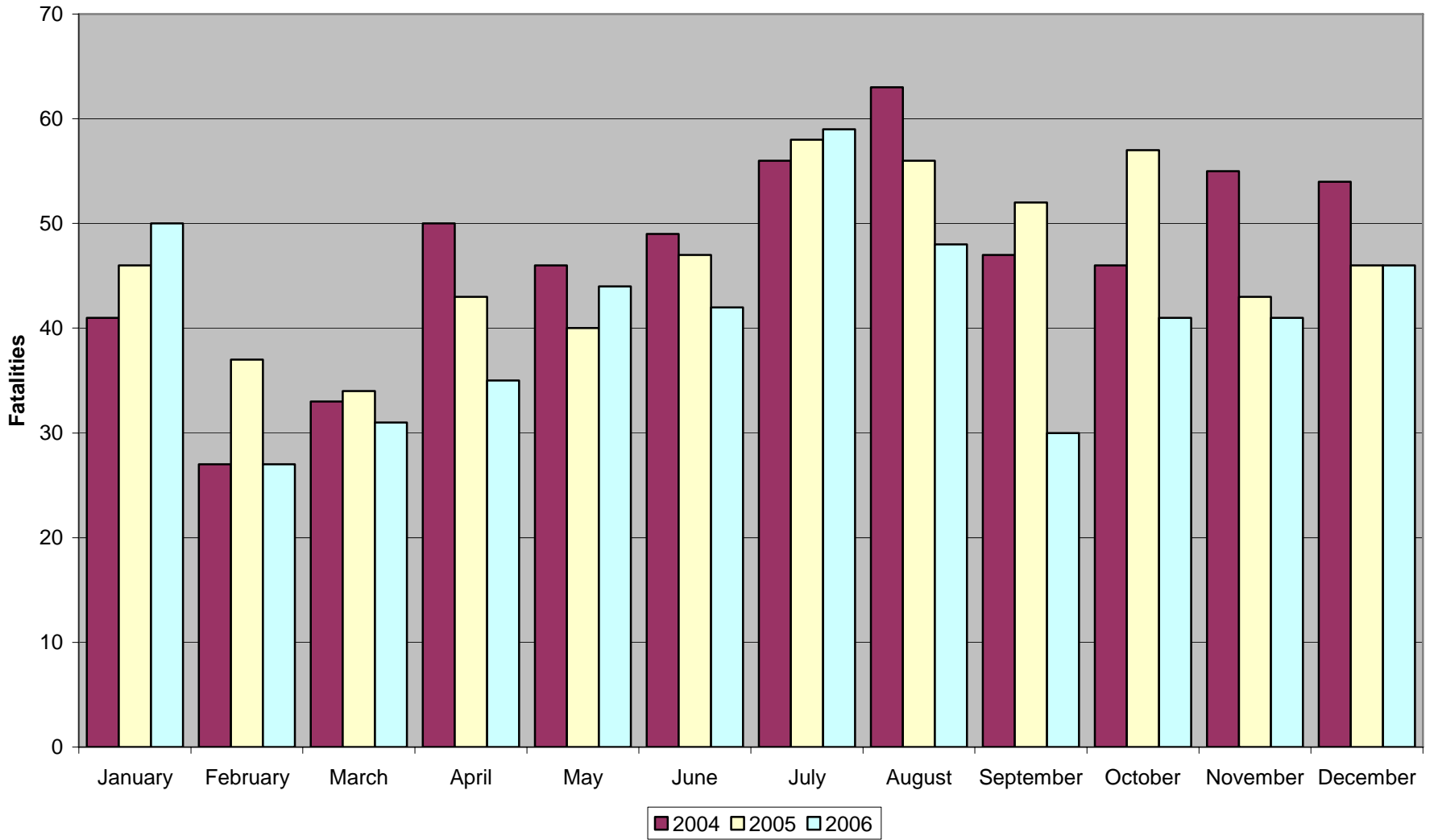
Single Vehicle ROR 965 (32%) 4

Intersection 1,004 (33%) 3

Head-On and Sideswipe 611 (20%) 7

Emphasis  
Area  
Fatality  
Rank

# Minnesota Traffic Fatalities

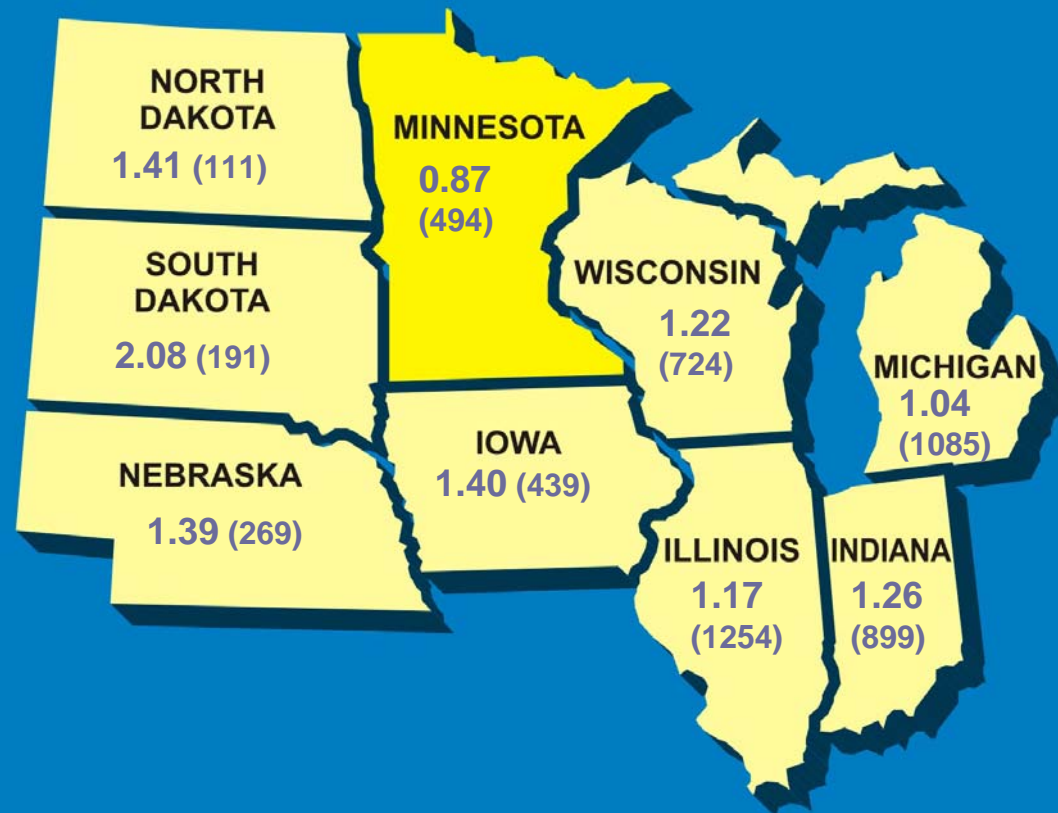


# Regional Fatality Rates and Fatalities

## Analysis/Comments

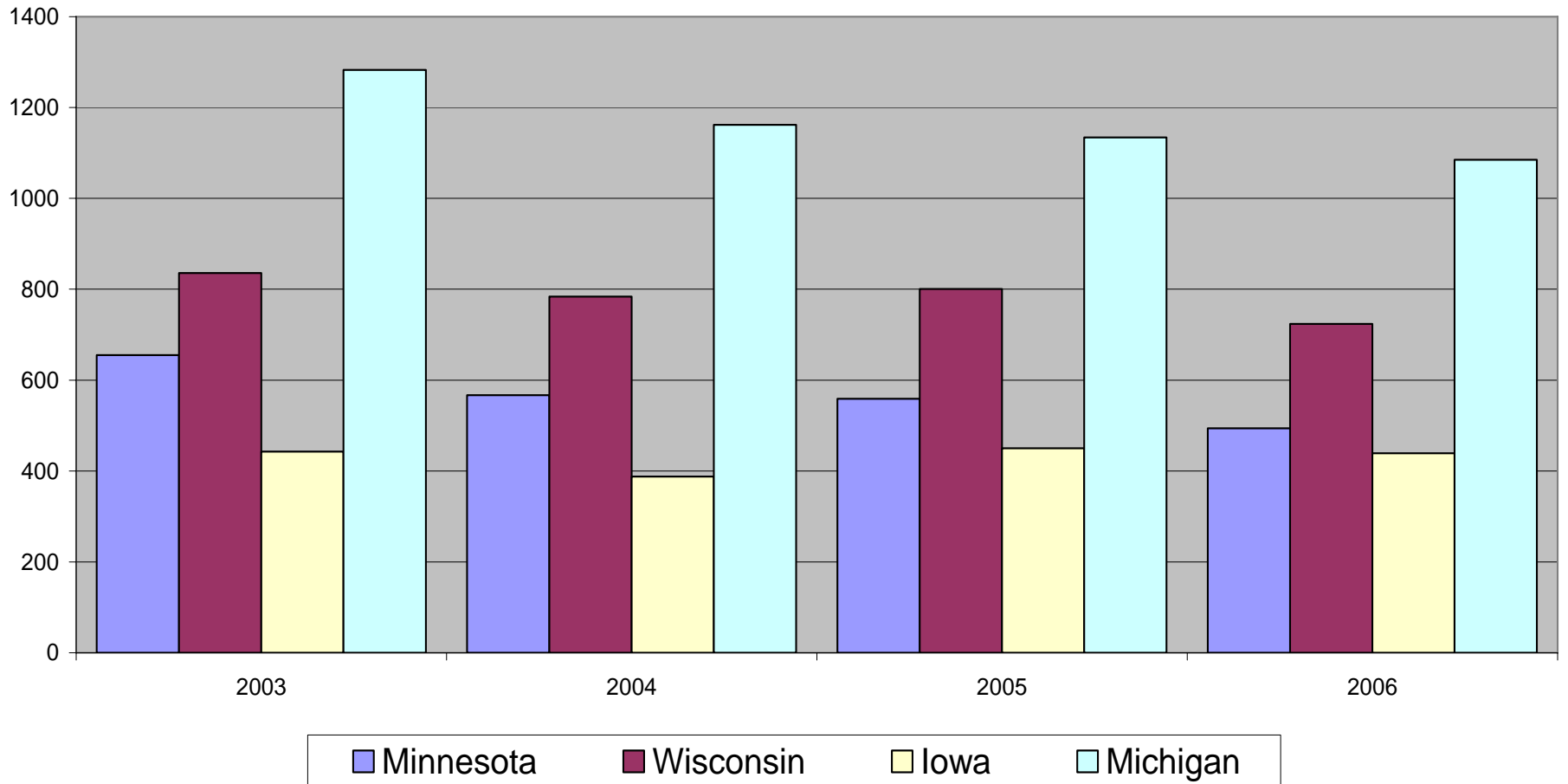
- Midwest states generally lower fatality rate than national average (1.41)
- Minnesota typically has one of the 10 lowest fatality rates
- Minnesota had the second lowest fatality rate nationwide in 2006. The top five were MA (.78), MN (.87), NH (.93), CT (.95), and RI (.98).

**National Average = 1.41 Fatalities / 100 MVM**

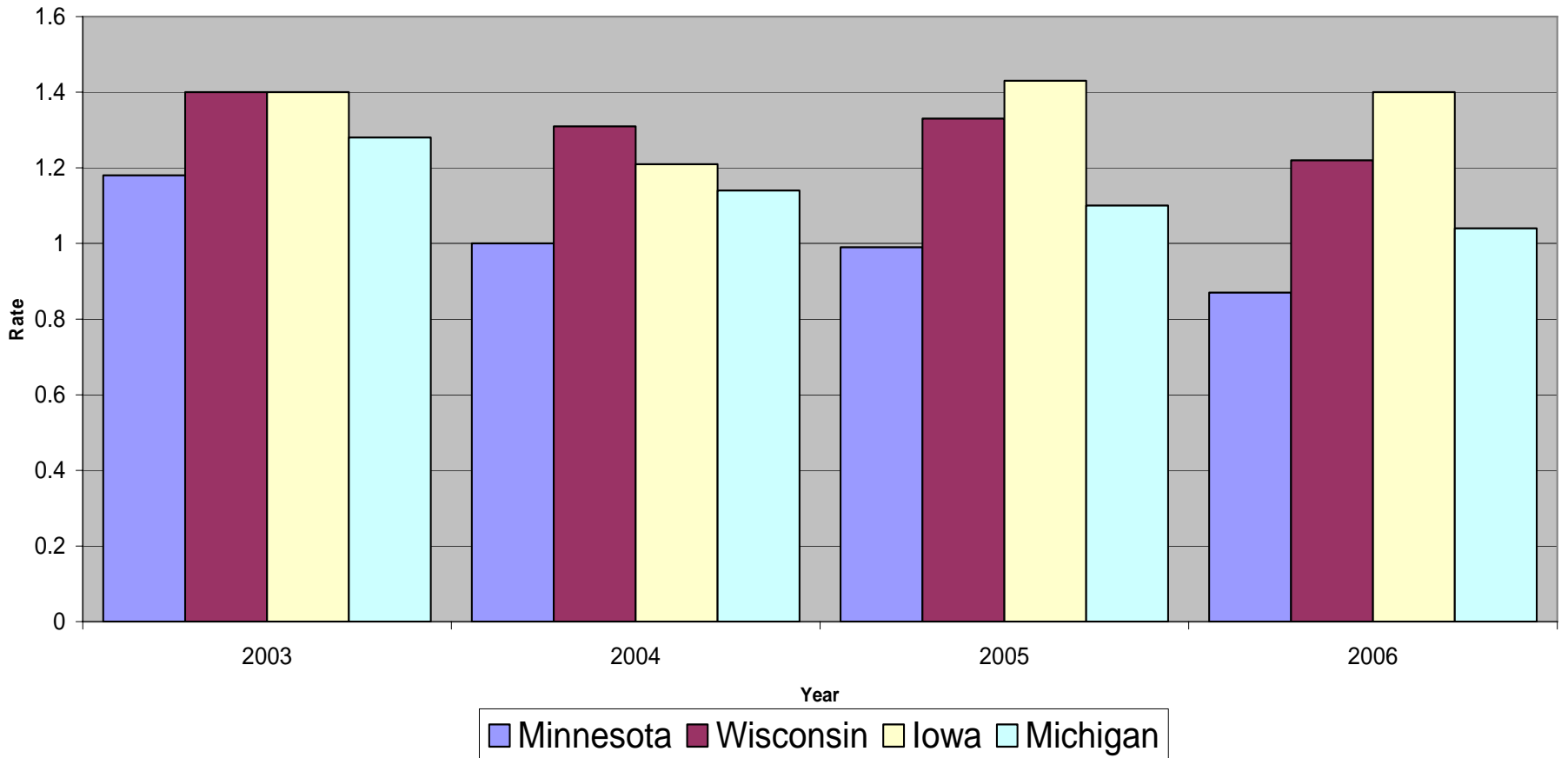


**Fatality Rate = Fatalities per 100 Million Vehicle Miles Traveled**

# Traffic Fatalities

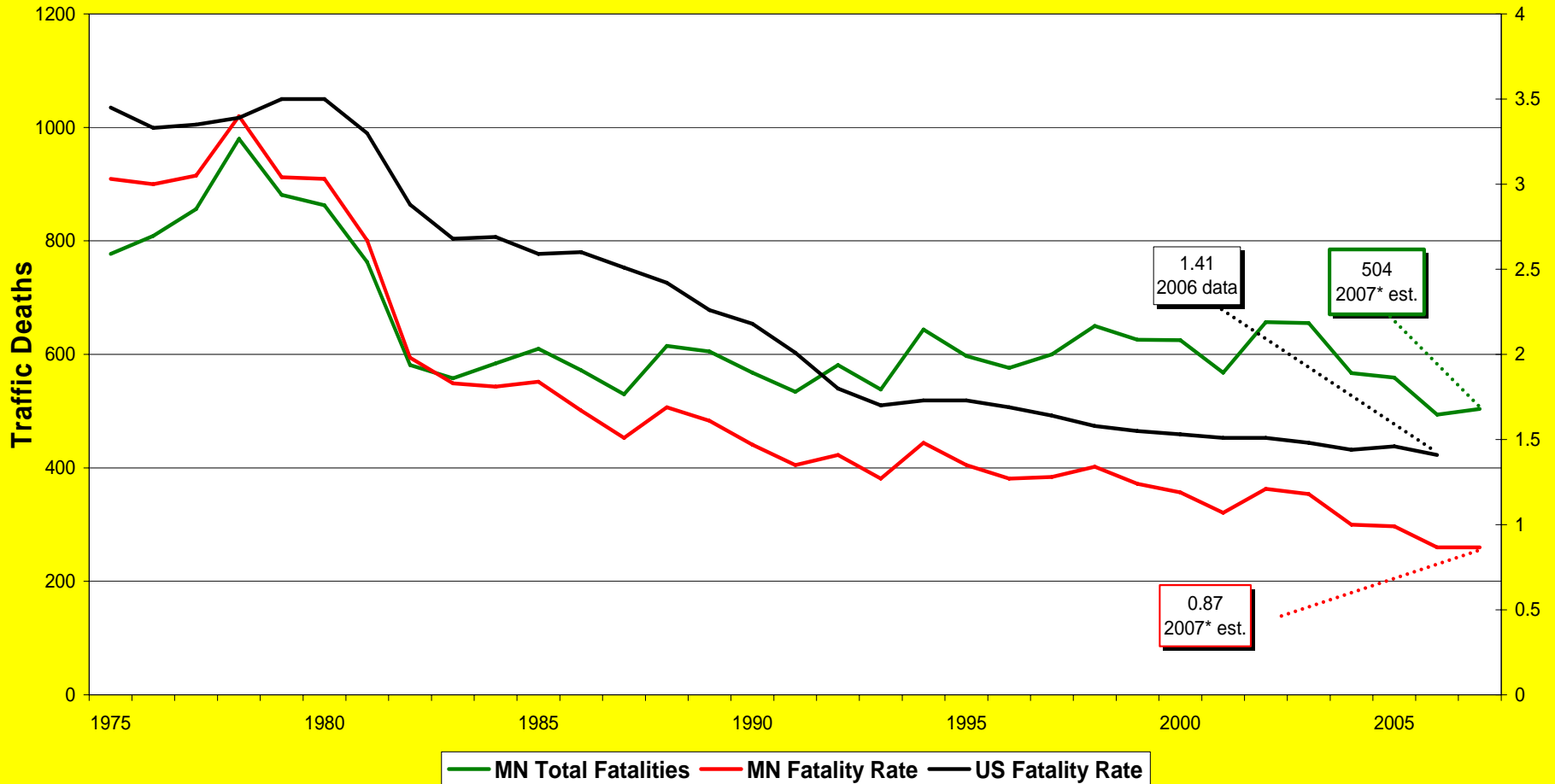


# Fatality Rate



# Fatalities and Fatality Rate

## Minnesota Traffic Fatalities and Fatality Rates 1975-2007



\* 2007 Data is preliminary and will not be finalized until May 2008

# Statewide Fatalities (2001-2005)

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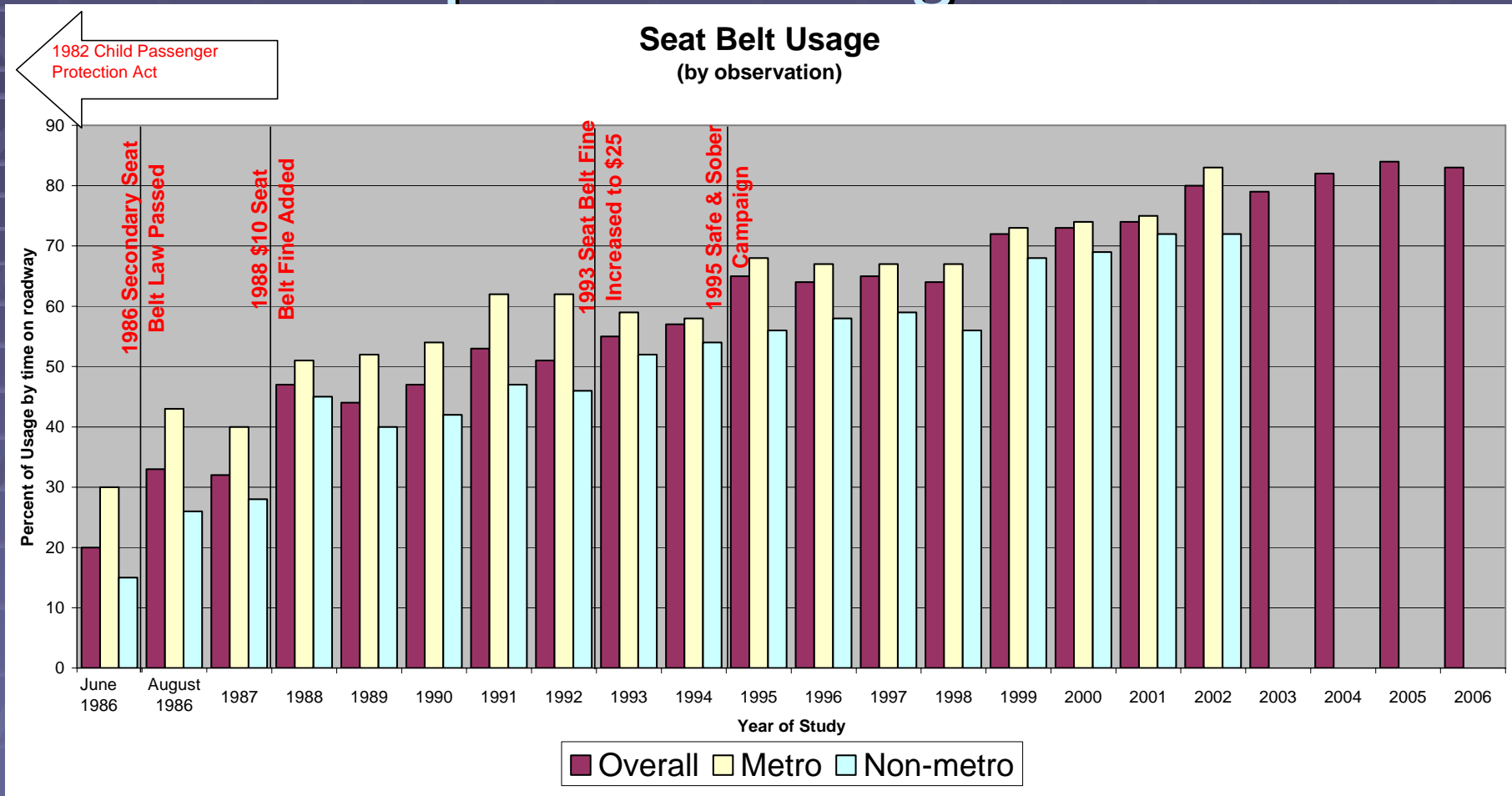
Single Vehicle ROR 965 (32%) 4

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Area  
Fatality  
Rank

# Minnesota Safety Belt use Responds to Legislation



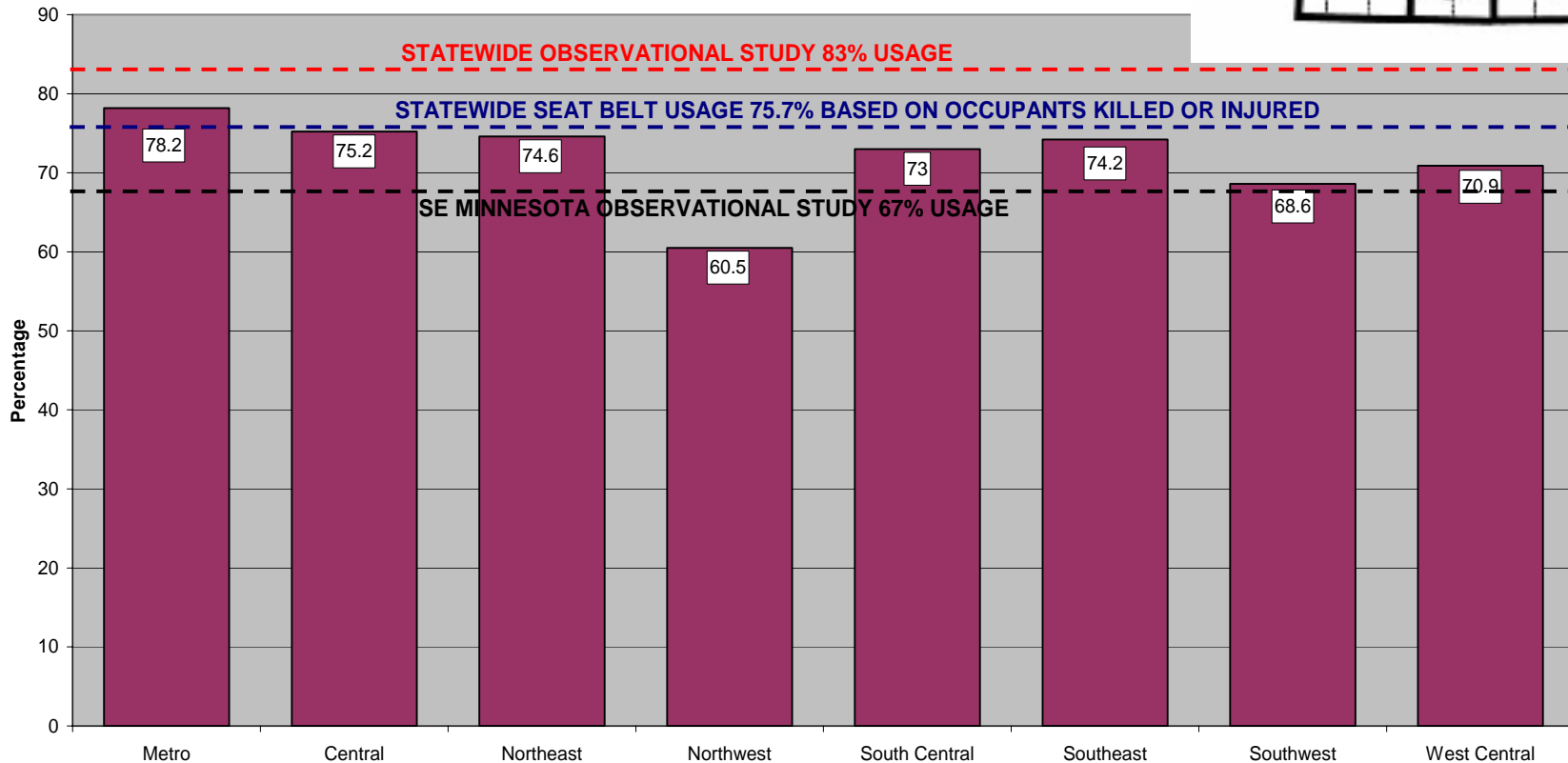
- The usage rate is the ratio of estimated time on the road that front seat occupants are using safety belts to the total estimated time on the road for these occupants.

- In 2003, the survey was completely redesigned and collected more information on vehicle occupants. Metro vs. Non-metro was no longer specified.

# Seat Belt Usage



**Seat Belt Usage by Region of Minnesota**  
based on motor vehicle occupants killed and injured



# PROPOSED LEGISLATION

## ■ PRIMARY SEAT BELT

- ESTIMATED TO RAISE SEATBELT USE FROM 83% TO 93%
- ESTIMATED TO PREVENT 40 DEATHS & NEARLY 400 SERIOUS INJURY CRASHES
- \$15 M ONE TIME INCENTIVE

## ■ BOOSTER SEAT LAW

- FOR CHILDREN 4 TO 7 YEARS OLD, BOOSTER SEATS REDUCE INJURY RISK BY 59 PERCENT COMPARED TO SAFETY BELTS ALONE.

## ■ GRADUATED DRIVERS LICENSE

- TRAFFIC CRASHES ARE THE LEADING CAUSE OF DEATH FOR MINNESOTA TEENS (AGES 15–17)
- FATALITY AND INJURY RATES FOR 16 YEAR OLDS ARE 20% LOWER IN STATES WITH NIGHTTIME AND PASSENGER RESTRICTIONS

# Statewide Fatalities (2001-2005)

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Total Vehicle Occupant Fatalities 2,429

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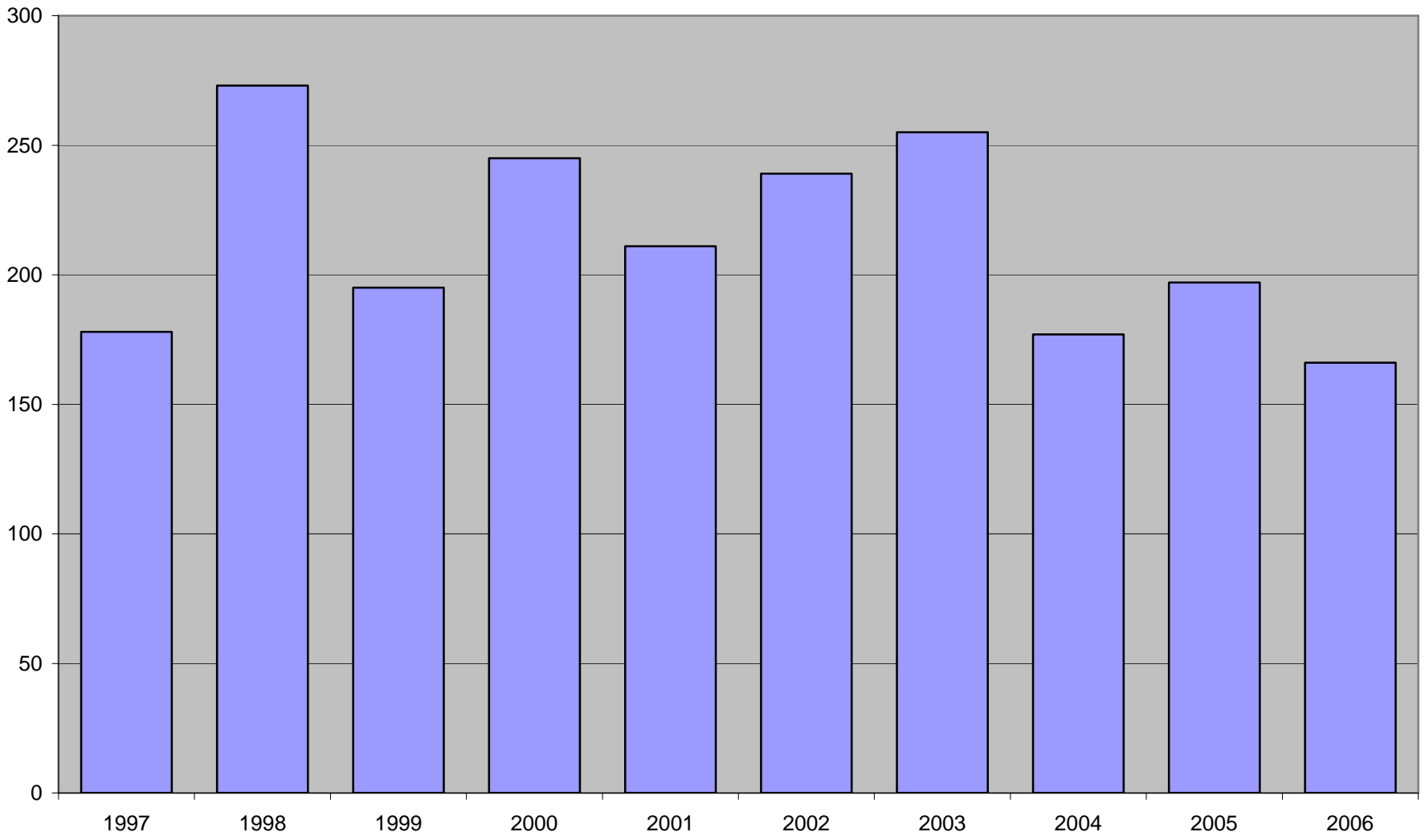
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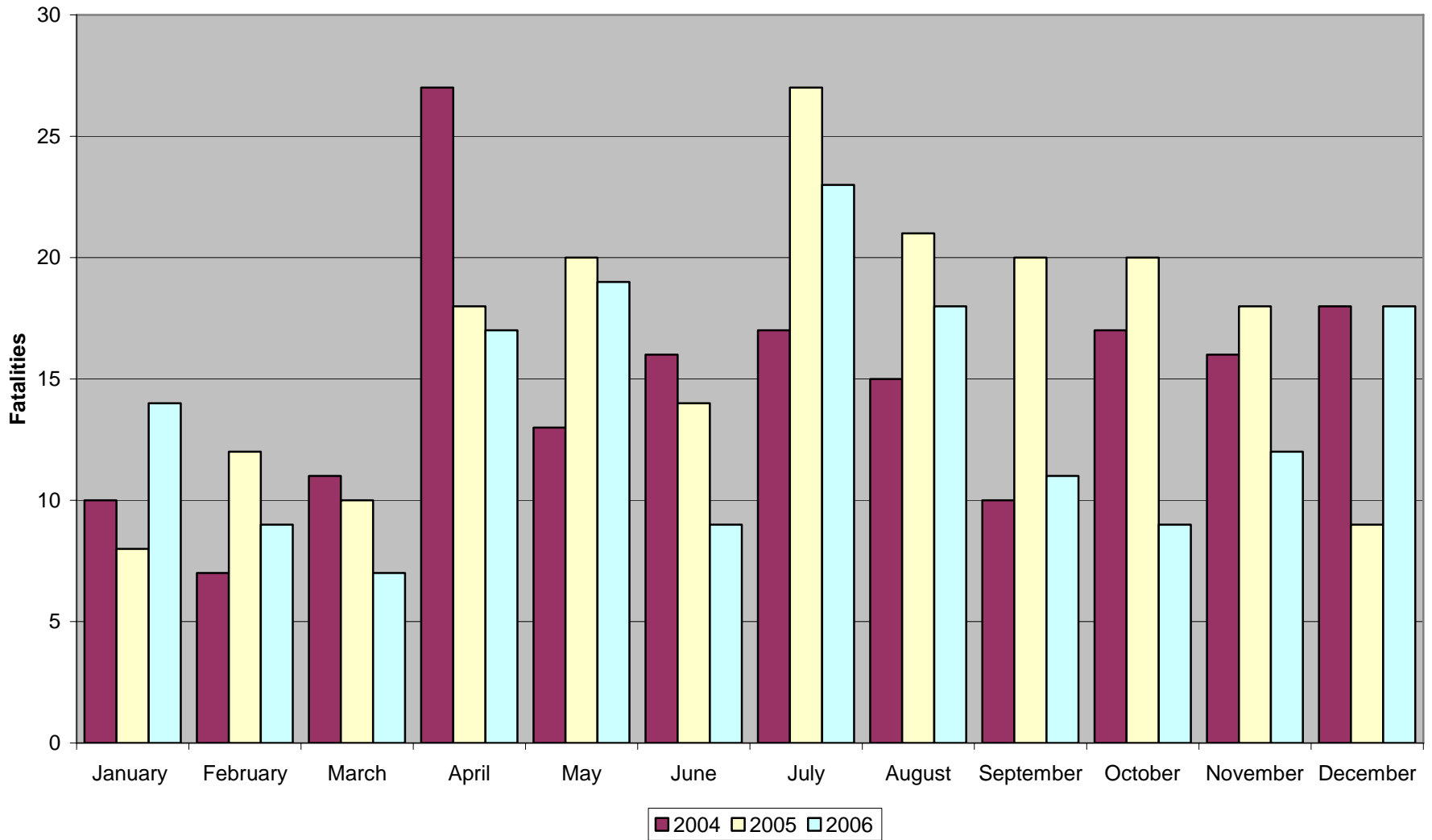
Head-On and Sideswipe 611 (20%) 7

Emphasis  
Area  
Fatality  
Rank

# Minnesota Impaired Driving Fatalities



# Minnesota Impaired Driving Fatalities



# Statewide Fatalities (2001-2005)

Total Fatalities 3,008

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## Infrastructure Based Emphasis Areas

Single Vehicle ROR 965 (32%) 4

Intersection 1,004 (33%) 3

Head-On and Sideswipe 611 (20%) 7

Emphasis  
Area  
Fatality  
Rank

# Speed Management Project

- September 26<sup>th</sup>, 2005 RAISED SPEED LIMITS ON 905 MILES OF 2-LANE 2-WAY FROM 55 TO 60 MPH TO BETTER FIT THE ROADWAY
- INCREASED ENFORCEMENT ON THESE **AND** OTHER INTERSTATES AND EXPRESSWAYS WHERE FATALITIES WERE UP FROM 1997
- PUBLIC EDUCATION & MEDIA CAMPAIGN ABOUT INCREASED ENFORCEMENT AND SPEEDING
- COMPREHENSIVE EVALUATION BY U OF M
  - 33,686 SPEED CITATIONS ISSUED
  - 45,000 SPEED WARNINGS ISSUED
  - METRO VEHICLES TRAVELING OVER 70 MPH – **Down 12%**
  - GREATER MN VEHICLES TRAVELING OVER 70 MPH – **Down 30%**

## REHEAT

- \$1.5M – APRIL 1, 2007 THRU SEPTEMBER 2008
  - \$200,000 REMAINS FOR A 4-WEEK SATURATION THIS SUMMER
- CURRENTLY LOOKING FOR SOURCES OF FUNDING TO CONTINUE THE PROJECT PAST SEPTEMBER

# Statewide Fatalities (2001-2005)

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Total Vehicle Occupant Fatalities 2,429

## Driver Behavior Based Emphasis Areas

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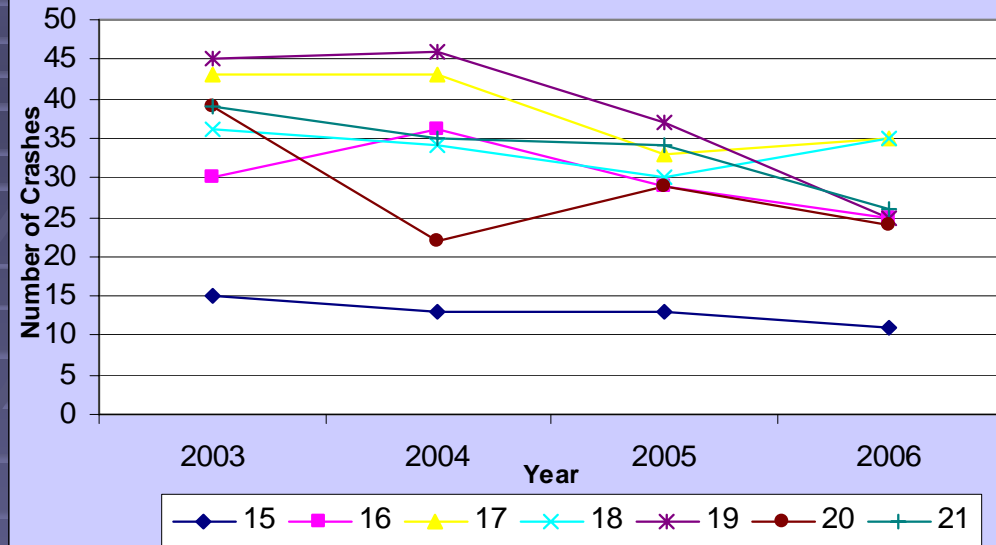
Intersection 1,004 (33%) 3

Head-On and Sideswipe 611 (20%) 7

Emphasis  
Area  
Fatality  
Rank

# Crash Trends involving Driver Age

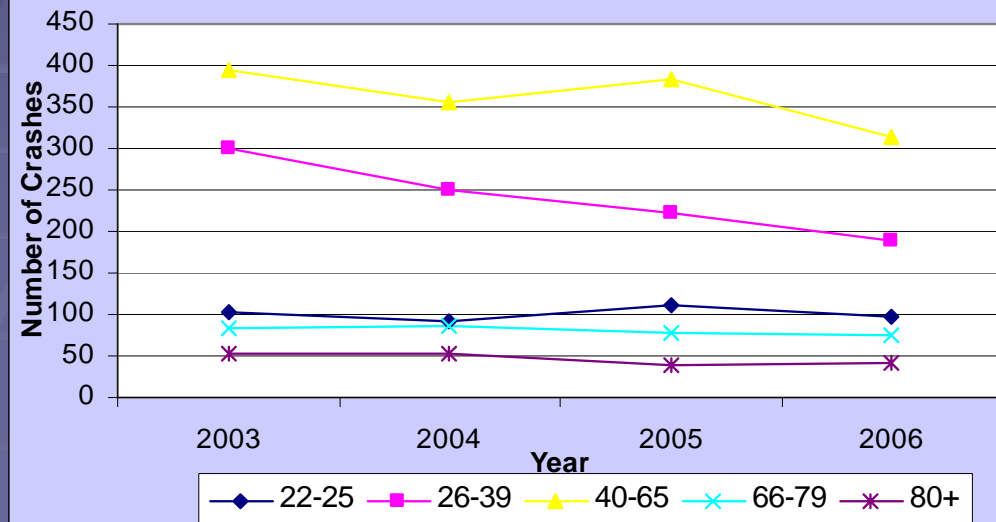
## Age of Driver Involved in a Fatal Crash



## FATAL CRASHES

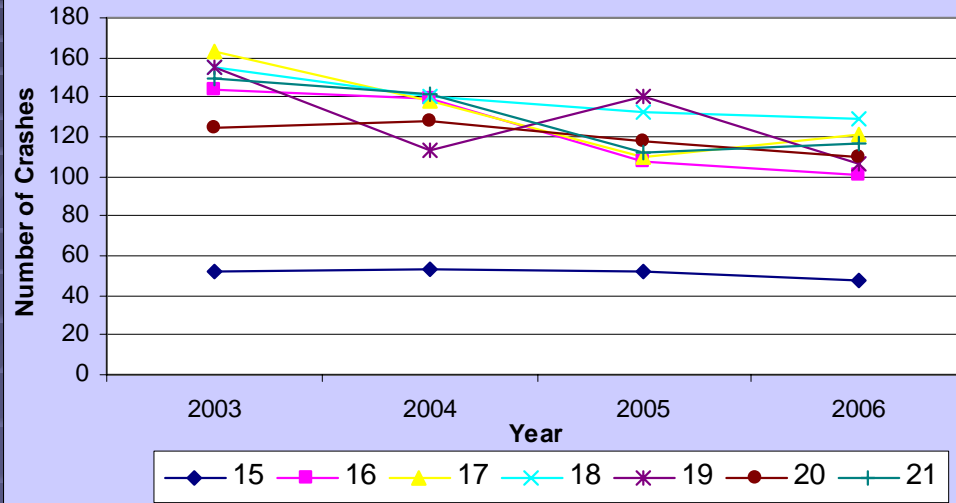
AGE	2003	2004	2005	2006	2003 to 2006	
15	15	13	13	11	-4	-26.7%
16	30	36	29	25	-5	-16.7%
17	43	43	33	35	-8	-18.6%
18	36	34	30	35	-1	-2.8%
19	45	46	37	25	-20	-44.4%
20	39	22	29	24	-15	-38.5%
21	39	35	34	26	-13	-33.3%
22-25	102	93	112	98	-4	-3.9%
26-39	299	249	223	189	-110	-36.8%
40-65	394	355	382	315	-79	-20.1%
66-79	83	86	78	76	-7	-8.4%
80+	54	52	40	43	-11	-20.4%
TOTAL	1179	1064	1040	902	-277	-23.5%

## Age of Driver Involved in a Fatal Crash

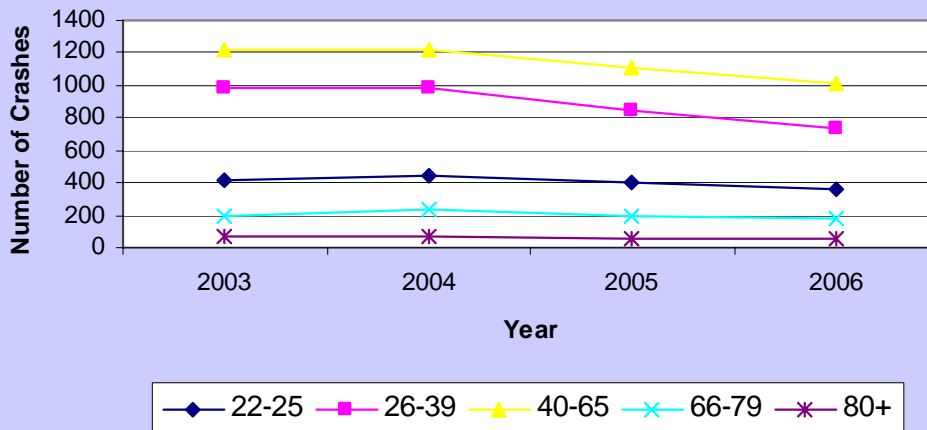


# Crash Trends involving Driver Age

## Age of Driver Involved in an "A" Severity Crash



## Age of Driver Involved in an "A" Severity Crash



### "A" SEVERITY CRASHES

AGE	2003	2004	2005	2006	2003 to 2006	
15	52	53	52	48	-4	-7.7%
16	144	139	107	101	-43	-29.9%
17	163	138	110	121	-42	-25.8%
18	155	140	133	129	-26	-16.8%
19	155	113	140	106	-49	-31.6%
20	125	128	118	110	-15	-12.0%
21	150	141	112	117	-33	-22.0%
22-25	420	442	398	359	-61	-14.5%
26-39	983	982	851	729	-254	-25.8%
40-65	1222	1226	1106	1005	-217	-17.8%
66-79	192	240	193	178	-14	-7.3%
80+	72	71	49	53	-19	-26.4%
TOTAL	3833	3813	3369	3056	-777	-20.3%

# Statewide Fatalities (2001-2005)

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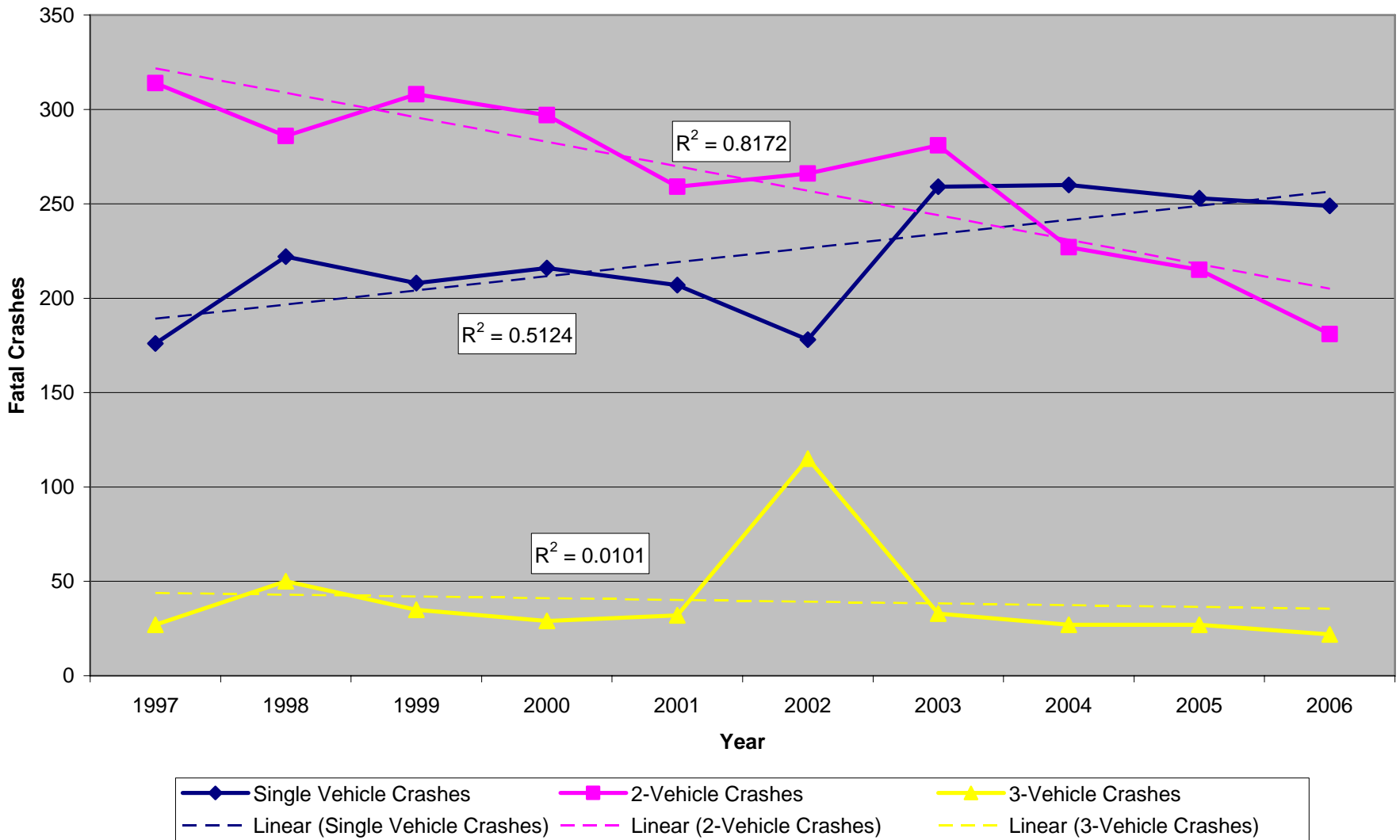
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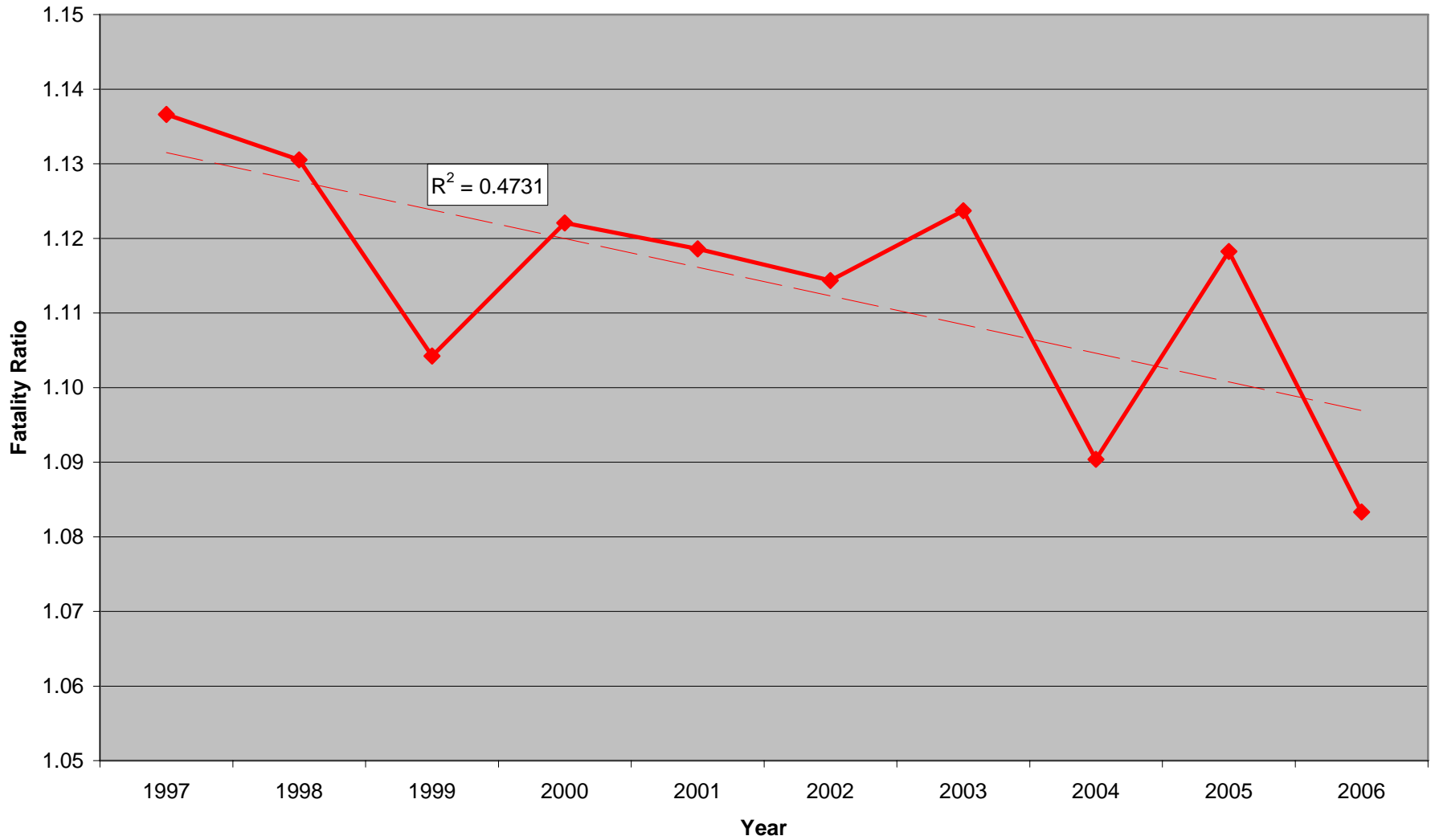
Head-On and Sideswipe 611 (20%) 7

Emphasis  
Area  
Fatality  
Rank

# Fatal Crashes by Number of Vehicles



# Fatalities per Fatal Crash



# Edge Treatments

- HSIP

- Local

- \$1.9M in Striping funded in 2009/2010
    - \$3.5M in 6" Wide Pavement Markings funded in 2009/2010
    - \$1.5M in Rumble StripEs/Strips funded in 2009/2010

- State

- \$1.6M planned in Rumble StripEs in 2009/2010
    - 20 miles Cable Median Barrier planned in 2011/2012 in Metro District

- CENTRAL SAFETY FUND

- Cable Median Barrier

- 92 miles installed by 2008
    - 113 miles planned in 2009/2010

- Local Metro Proactive projects

- Other projects (included both local and State projects)

- Statewide Pavement marking study

- 98 miles of Wet Reflective Markings installed 2008
    - 310 miles of Rumble StripEs installed 2008
    - 328 miles of 6" Wide Pavement Markings installed 2008

# Statewide Fatalities (2001-2005)

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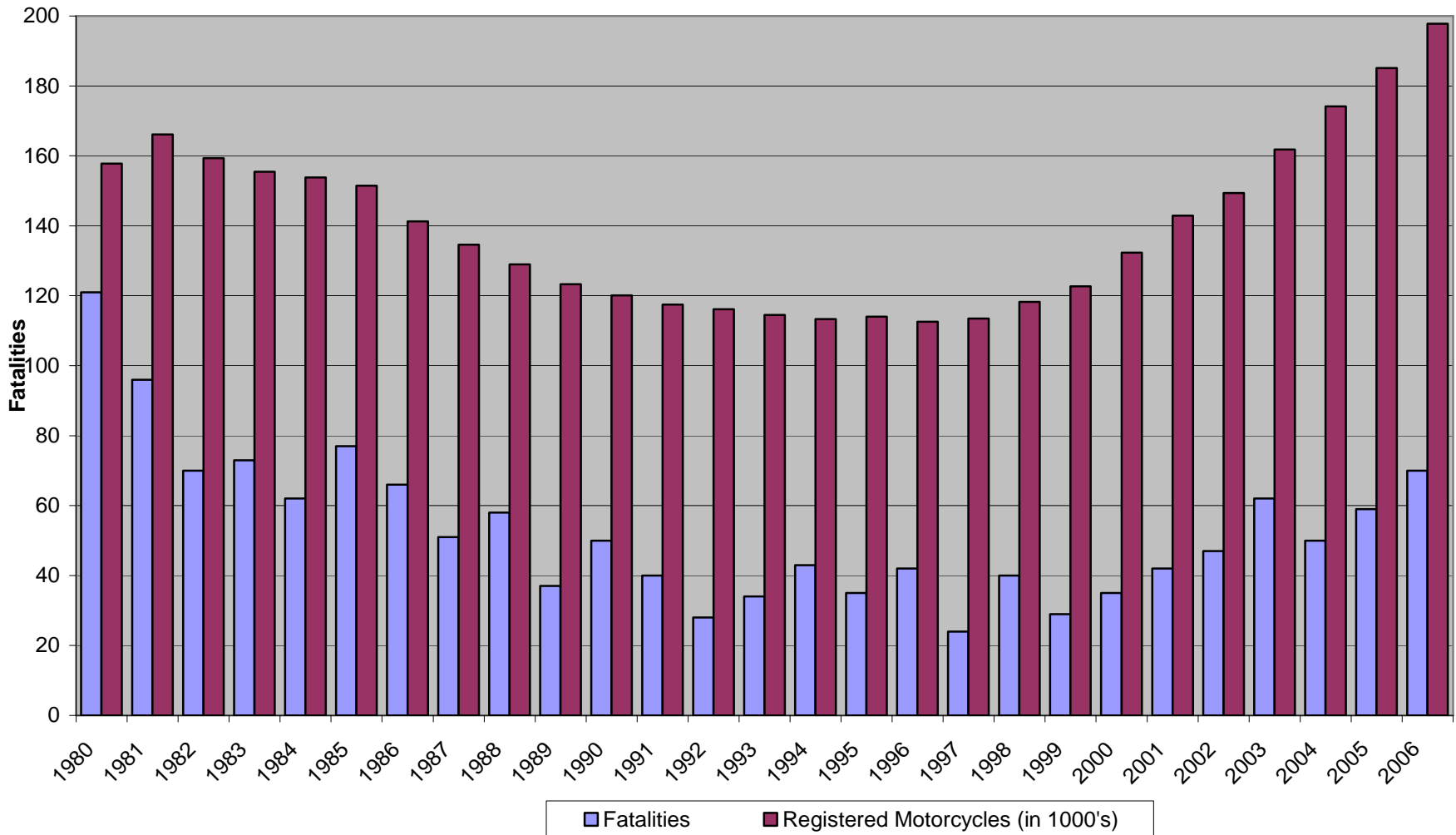
# Intersections

- Continue to fund reactive projects
- Lighting intersections proactively
- Improved signage systems at intersections
- Active Warning Systems

# Other modes

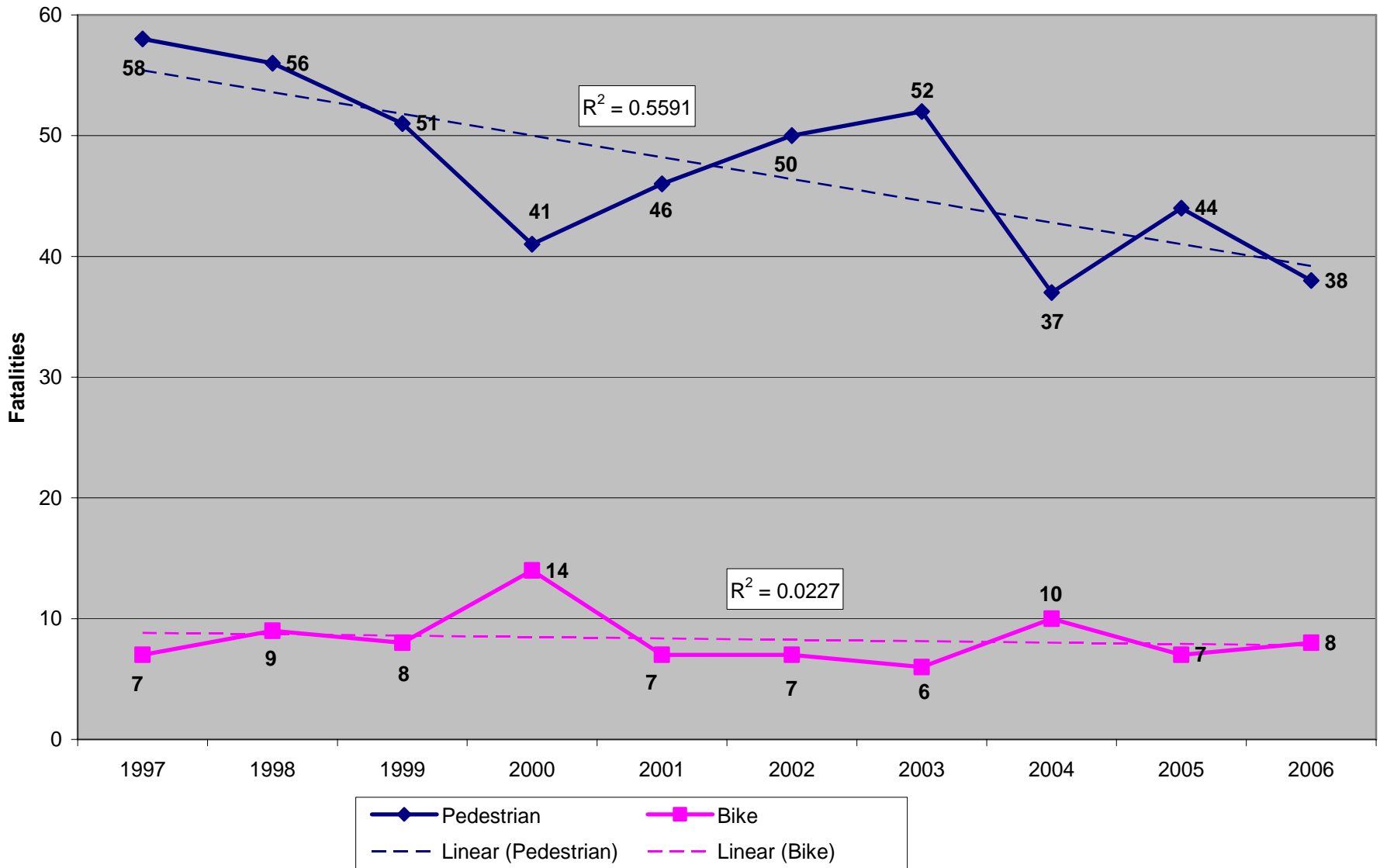
# Minnesota Motorcycle Fatalities

(does not include non-cycle rider fatalities)



- 1968 Universal helmet law covering all riders
- 1977 Coverage reduced to 17 and younger and instruction permit holders
- Males account for 82% of all motorcyclists killed or injured

# Pedestrian & Bicycle Fatalities



# Pedestrian Fatalities

## Top Contributing motor vehicle factors in 2006

- Failure to Yield Right of Way (29.1%)
- Driver Inattention/Distraction (24.3%)
- Vision Obscured (12.3%)
- Illegal or Unsafe Speed (4.1%)
- Chemical Impairment (3.2%)

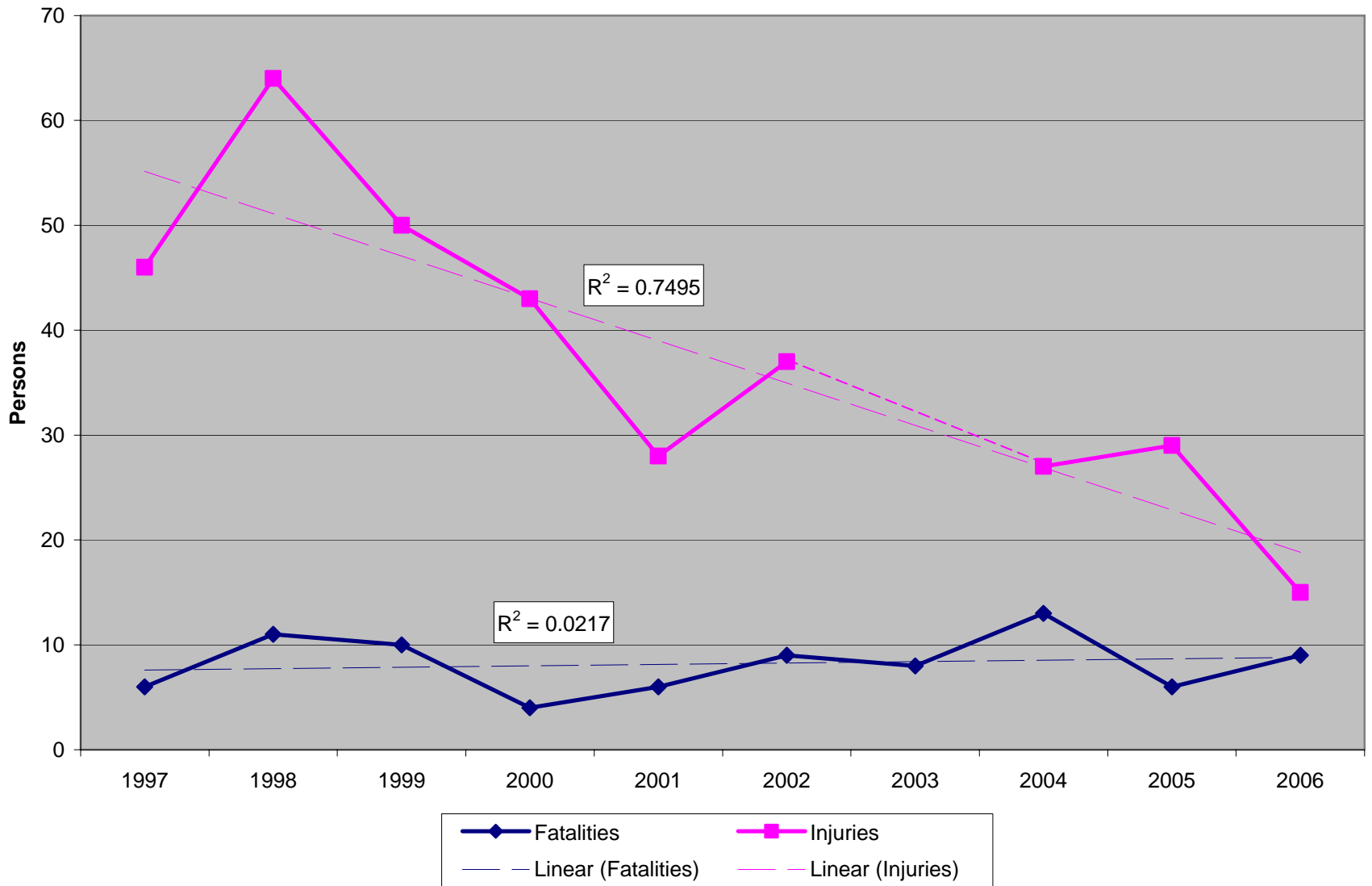
## Top Factor attributed to Pedestrians in 2006

- Chemical Impairment (26%)
- Down 38% from 2005

## Who's at Risk?

- Under 25
  - Represent 32% persons killed and 38% persons injured
- Males account for 53% of all pedestrian fatalities
  - Represent 32% persons killed and 38% persons injured

# Minnesota Motor Vehicle/Train Crashes



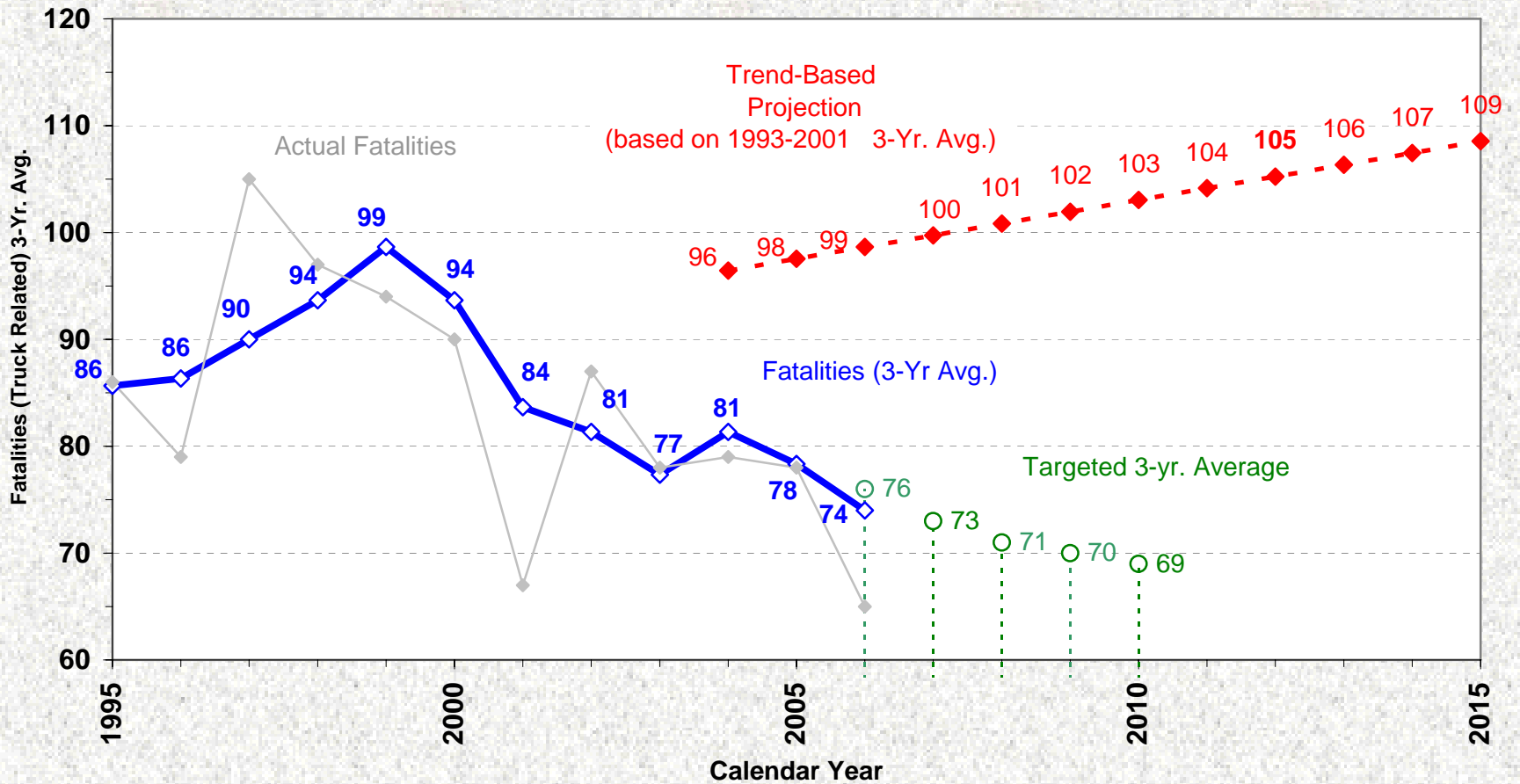
# Motor Vehicle/Train Crashes

## Top Contributing factors in 2006

- Failure to Yield Right of Way
- Driver Inattention/Distraction
- Disregard of Traffic Control Device
- Illegal or Unsafe Speed
- Chemical Impairment

# Truck-Related Fatalities

All fatalities on all state or local roads involving a large truck



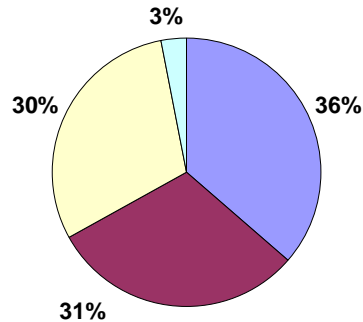
# Analysis of Truck-involved crashes

- 2006 – 62 fatal truck crashes, killing 65 people
  - 17% decrease from 2005
- In two vehicle crashes, heavier vehicles have the clear safety advantage
  - Only 11 of the 65 people killed in truck-involved crashes were in trucks.
- 79% of Fatal crashes occurred in the rural areas of Minnesota
- 22% of truck crashes occurred due, in part, to driver inattention

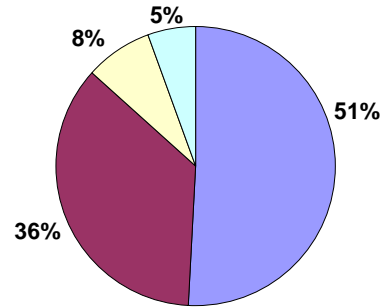
# Additional crash statistics

# Crash, Fatality, Miles of Roadway, Vehicle-Miles Traveled Comparison by Jurisdiction

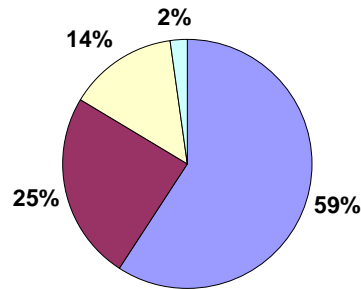
2004-2006 Crash Comparison



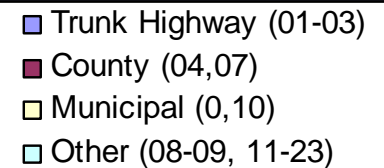
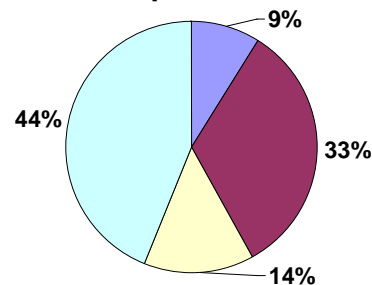
2004-2006 Fatality Comparison



2006 Vehicle Miles Comparison



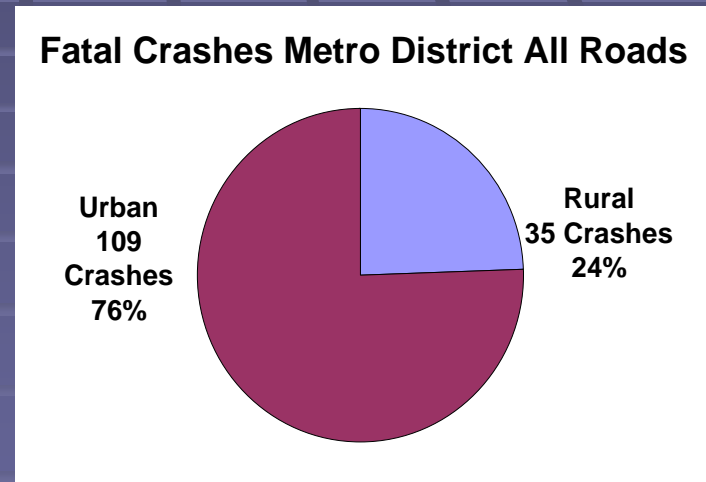
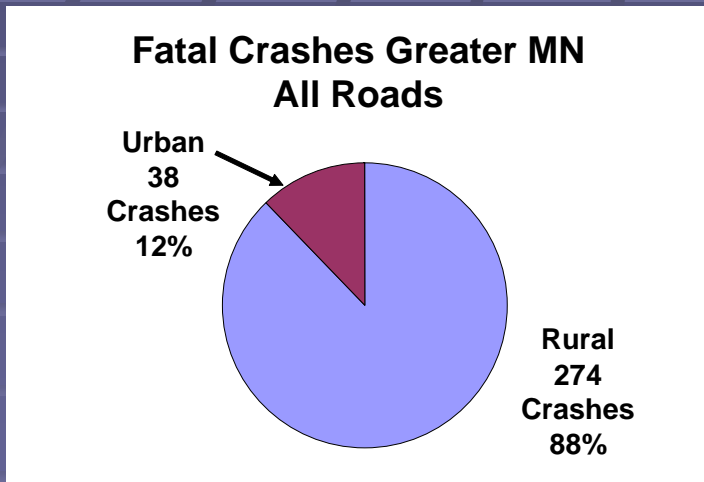
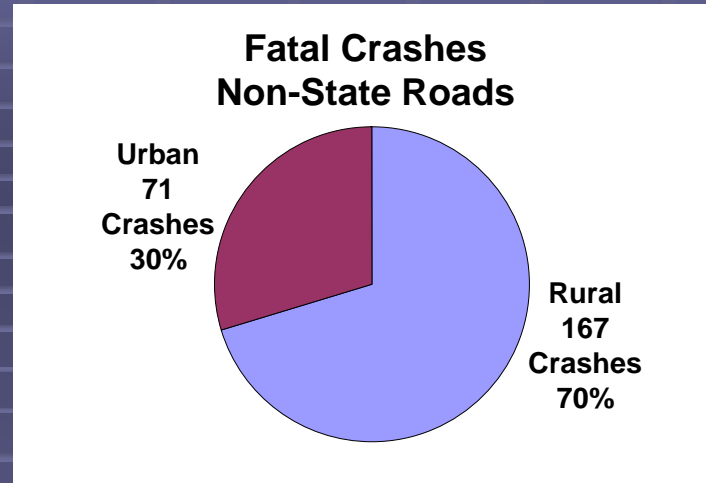
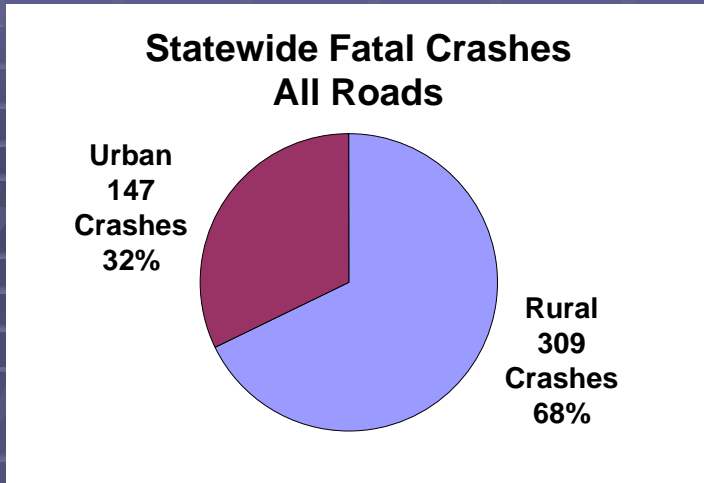
2006 Miles of Roadway Comparison



## Analysis/Comments

- 86% of Fatalities occur on the State and County System
- Municipal system: very few fatalities compared to % of total crashes (transferred to THs)
- THs have 9% of miles, but 59% of VMT
- 'Other' category makes up very large % of miles but very low % of other data.

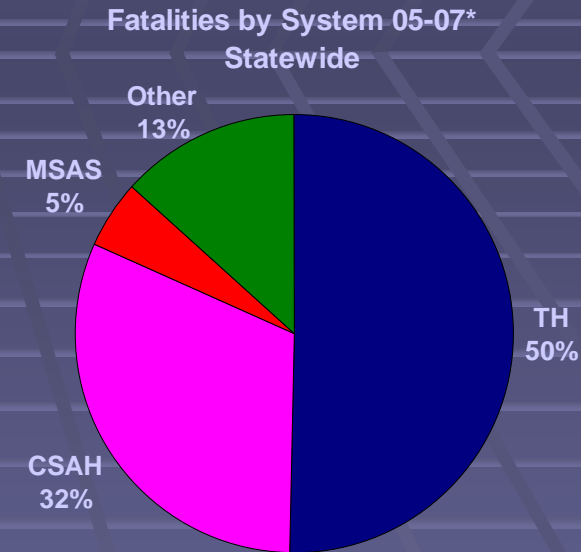
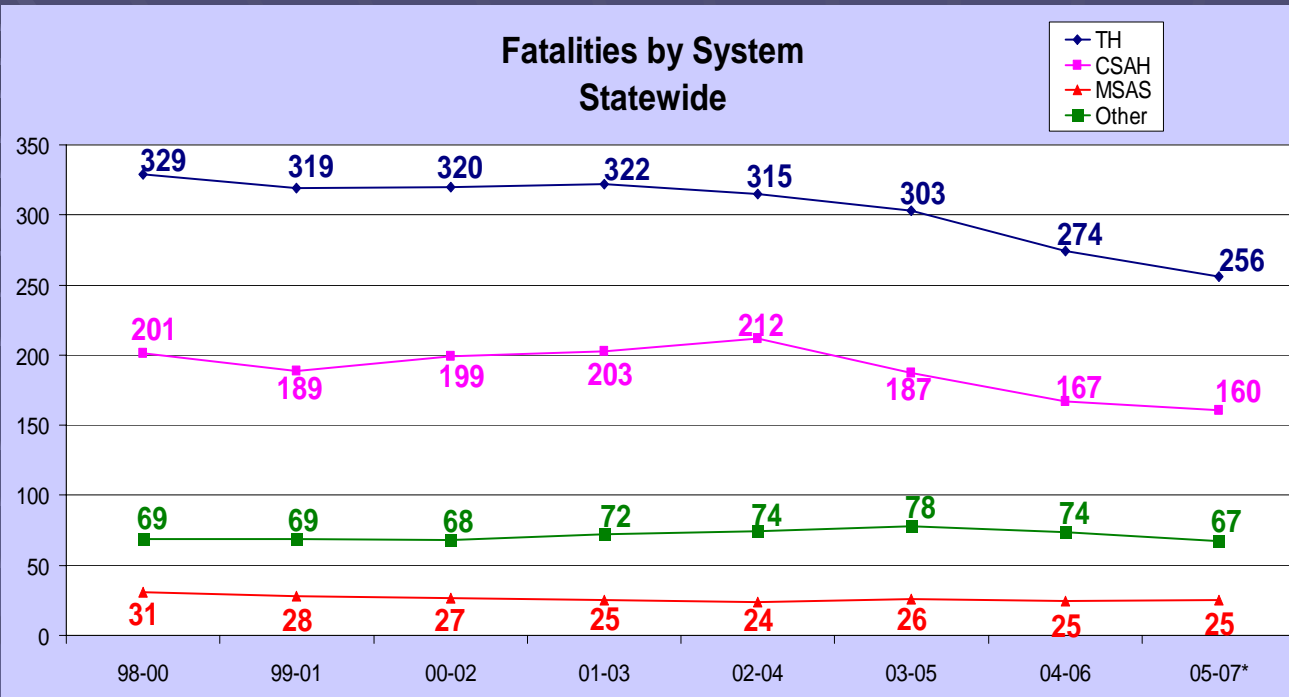
# 2006 Rural vs. Urban Comparison



## Analysis/Comments

- 12% of Greater MN fatal crashes are Urban
- 76% of Metro District fatal crashes are Urban

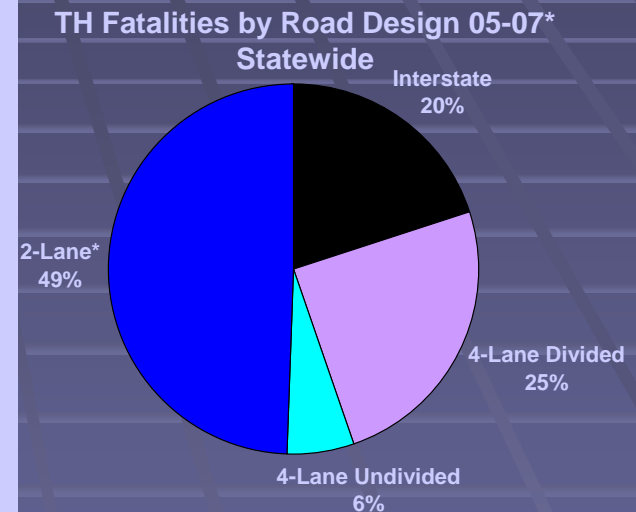
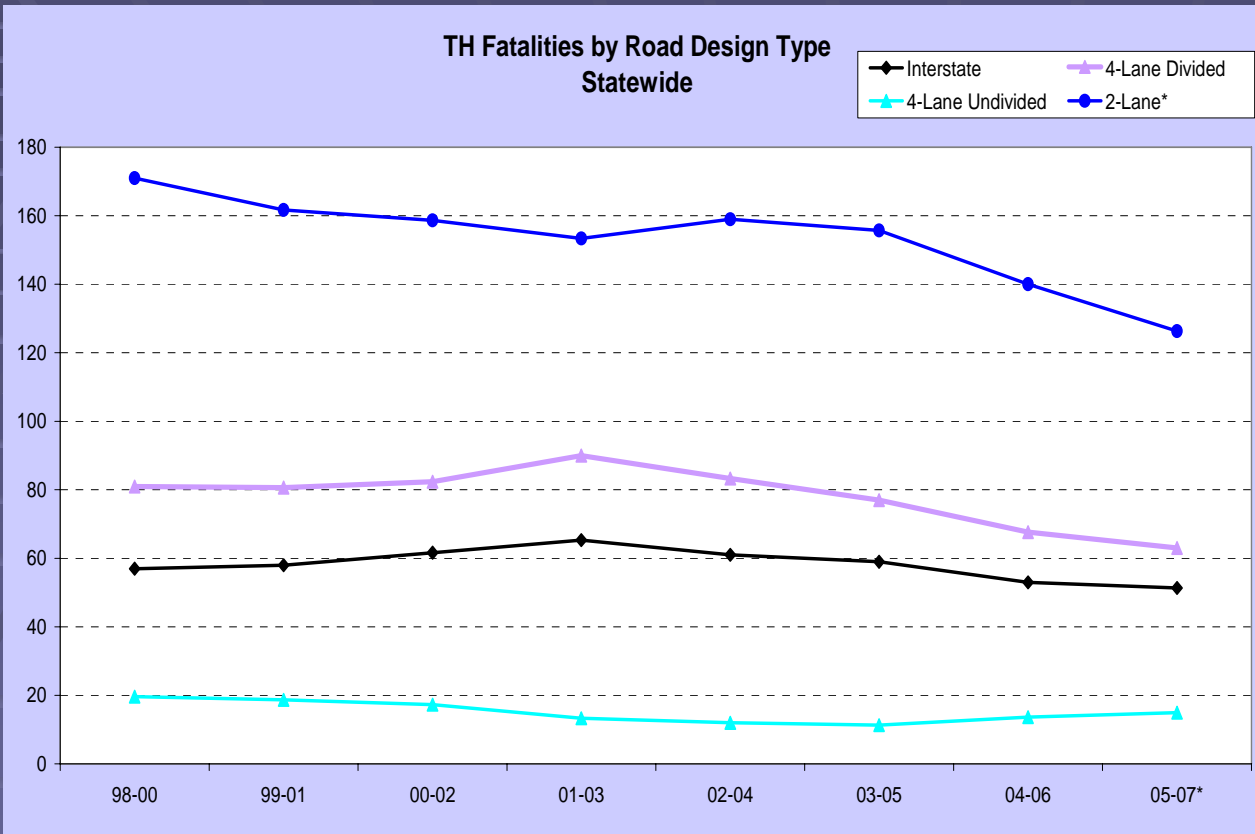
# Fatalities All Roads



## Analysis/Comments

- TH vs. local system fatalities ~50 / 50 split – importance of partnering

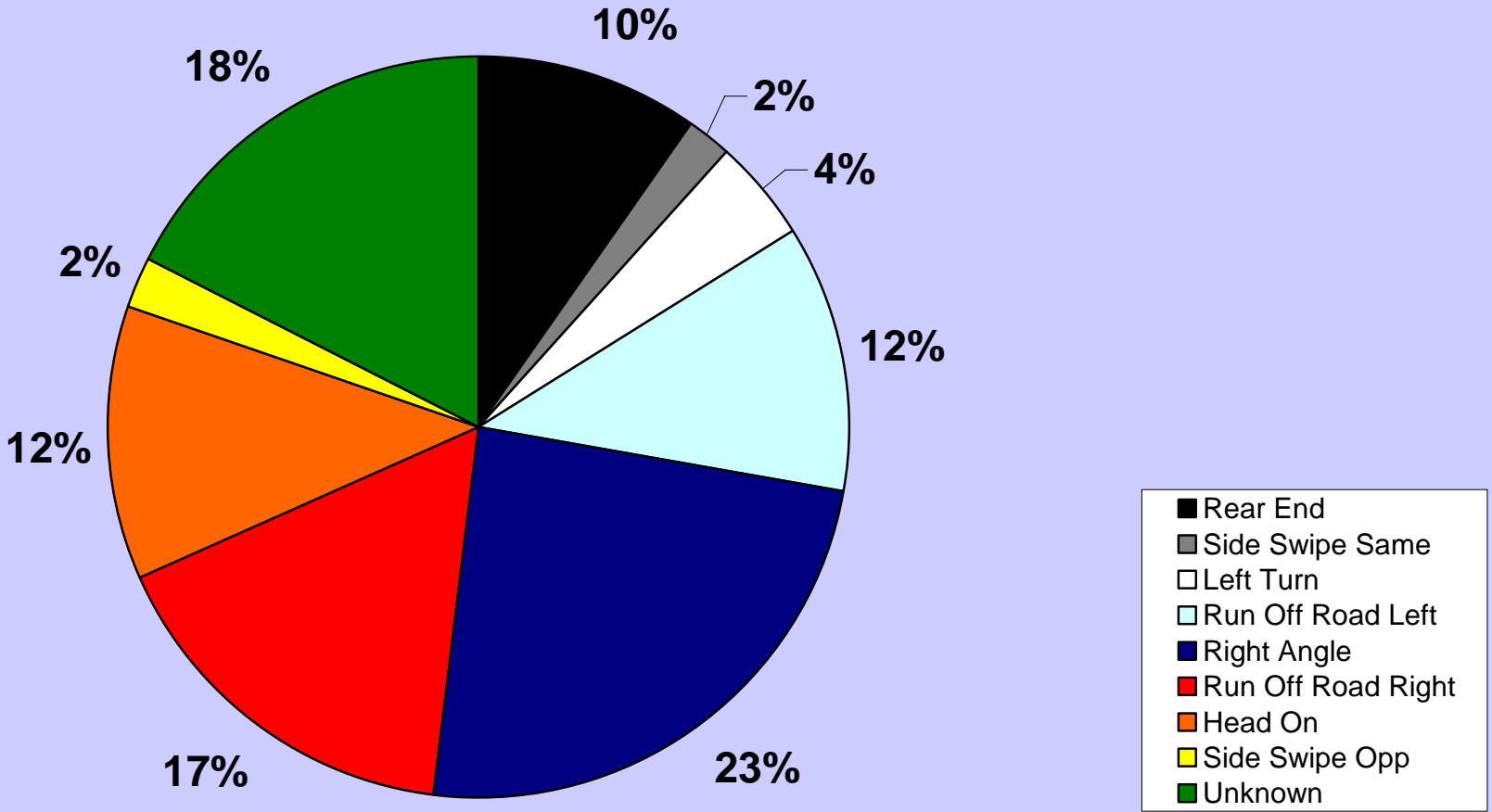
# Fatalities State Trunk Highways



## Analysis/Comments

- 2-Lane Trunk Highways: 80% of TH miles, 50% TH fatalities, 30% of TH traffic

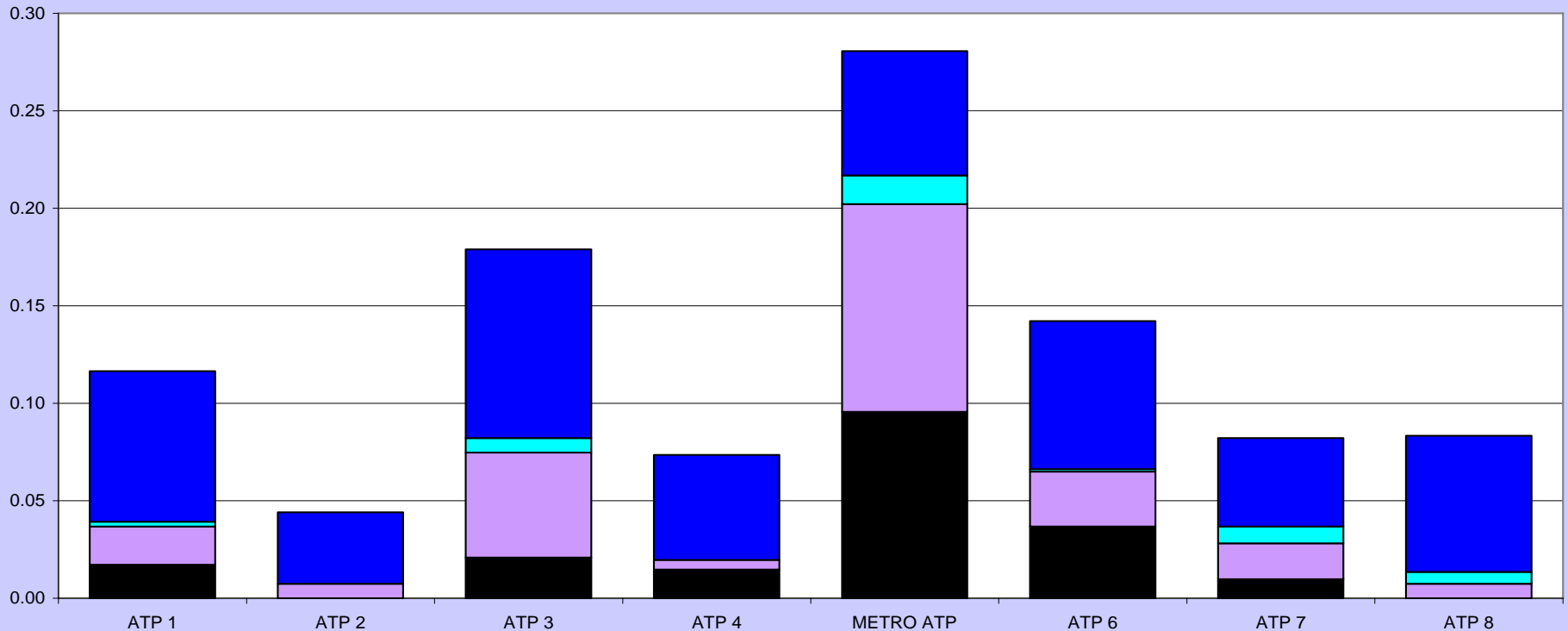
# Statewide - 2005-07\* TH Fatal + A Crashes



# Mn/DOT Target – Fatalities

## T.H. ATP Comparison by Road Design 2005-2007

**% of TH Fatalities by ATP by Road Design  
2005-2007\* 3 Year Annual Average**



### Analysis/Comments

- 60% of trunk highway fatalities are concentrated in Metro, D3 and D6.
- Statewide Transportation Plan measure sets a long-range target to reduce the absolute number of fatalities.
- Reduction in rural 2-lane fatalities essential to long-term targets – CHSP will include many strategies

Source: Office of Traffic, Safety, and Operations.

Note: The legal threshold for reporting a crash went up from \$500 to \$1000 on August 1, 1994.

# APPENDIX

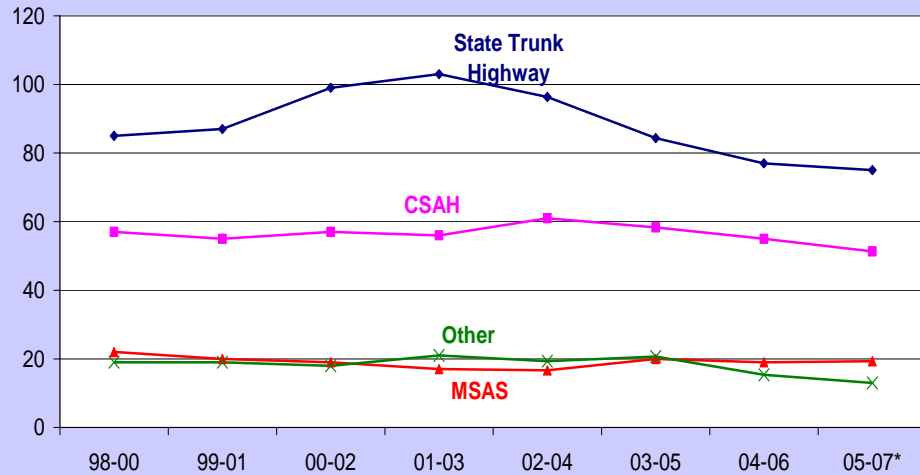
## DATA AND FIGURES BY ATP

# Fatalities - Metro

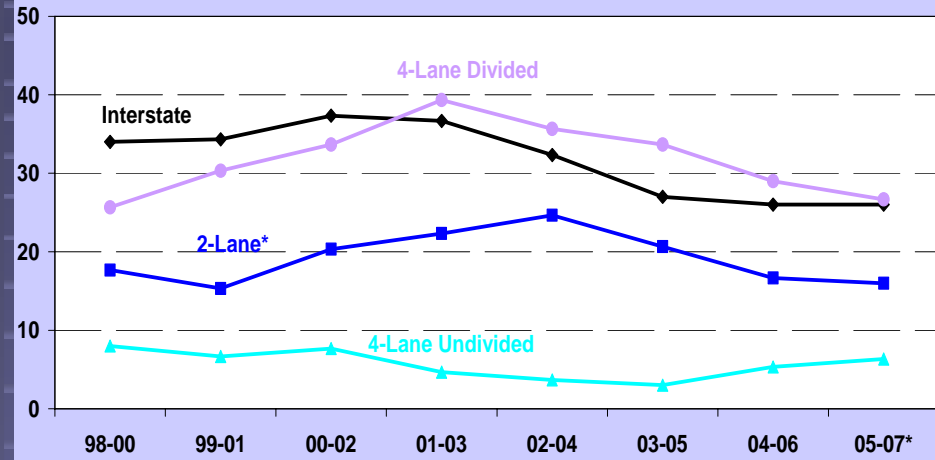
**Statewide Measure:** Number of roadway fatalities (3-year annual average).

**Statewide Targets:** Reduce fatalities to 600 by 2023 (- 0.26% per year). Improve 40 TH High Crash-Cost Locations annually.

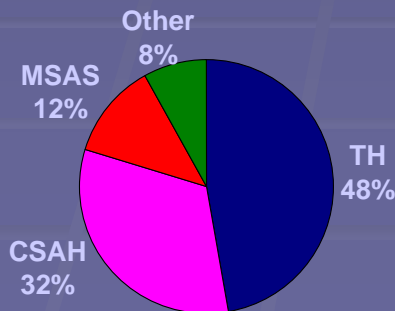
### Fatalities by System Metro ATP



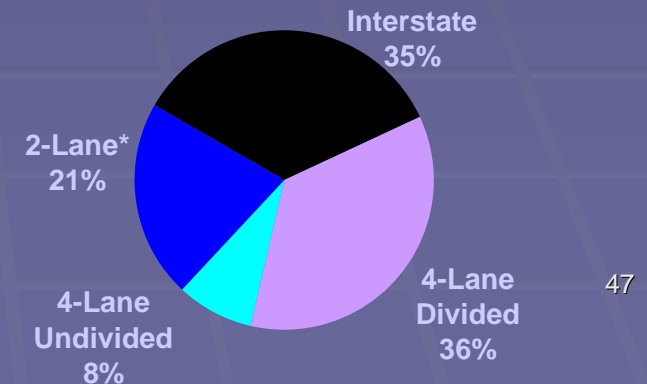
### TH Fatalities by Road Design METRO ATP



### Fatalities by System 05-07\* Metro ATP

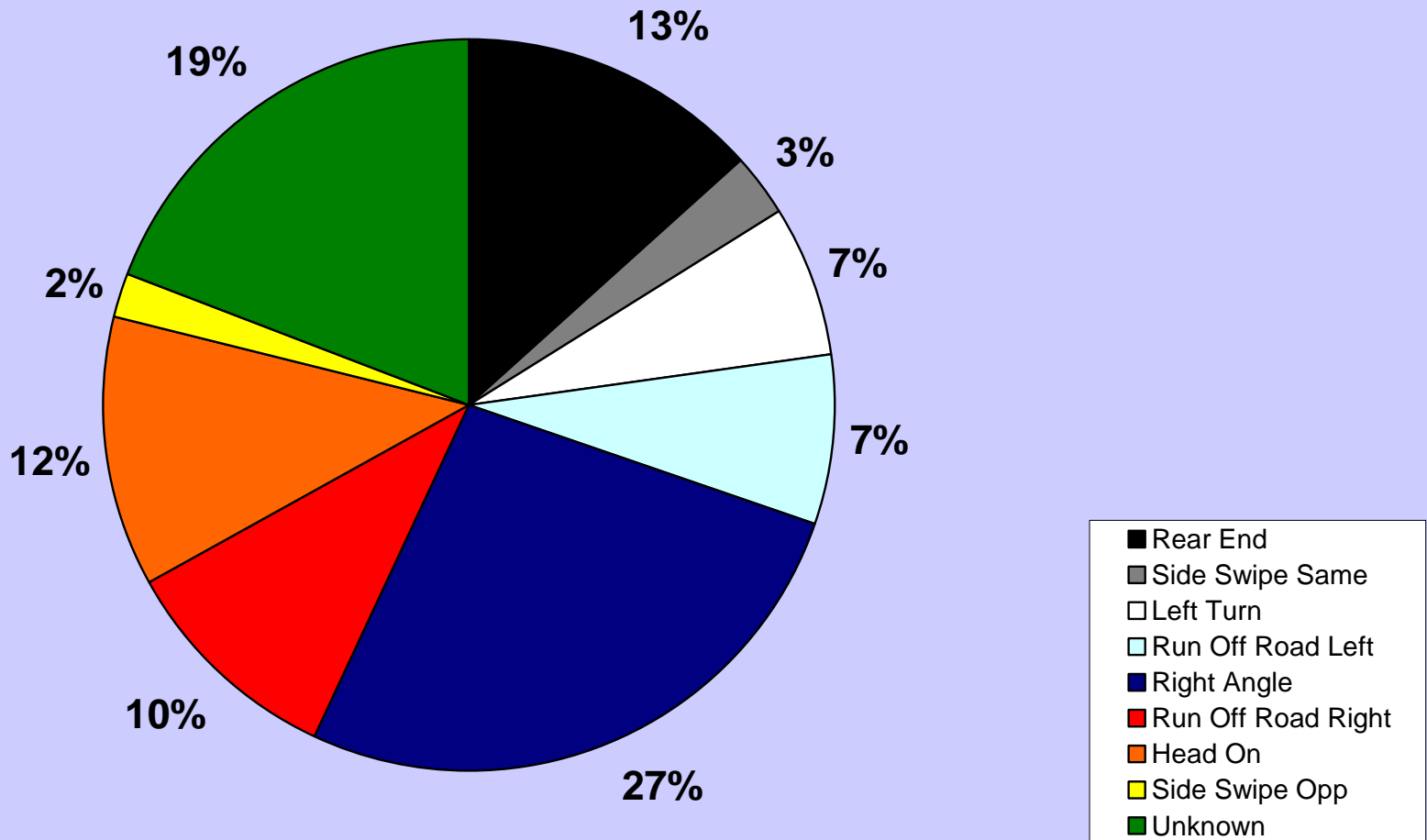


### TH Fatalities by Road Design 05-07\* Metro ATP



## Metro ATP Fatal + A Crashes by Diagram

### METRO ATP - 2005-07\* TH Fatal + A Crashes

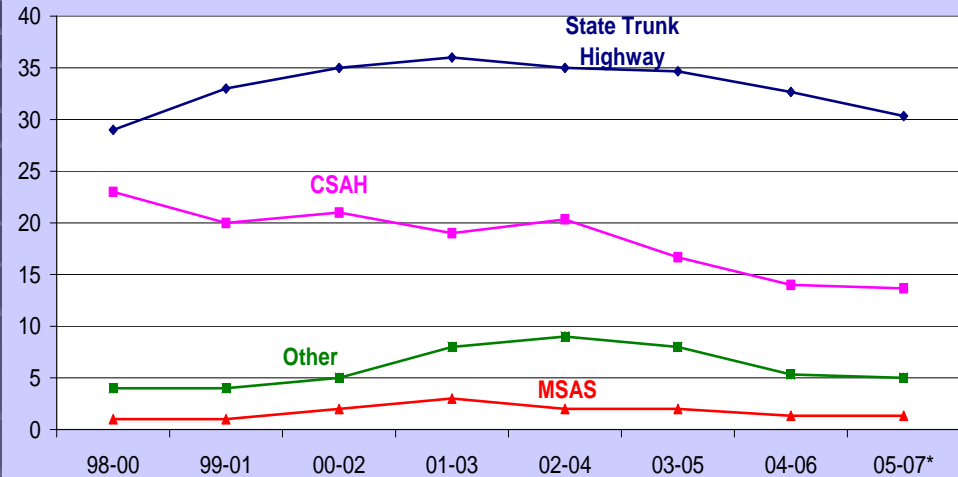


# Fatalities - ATP 1

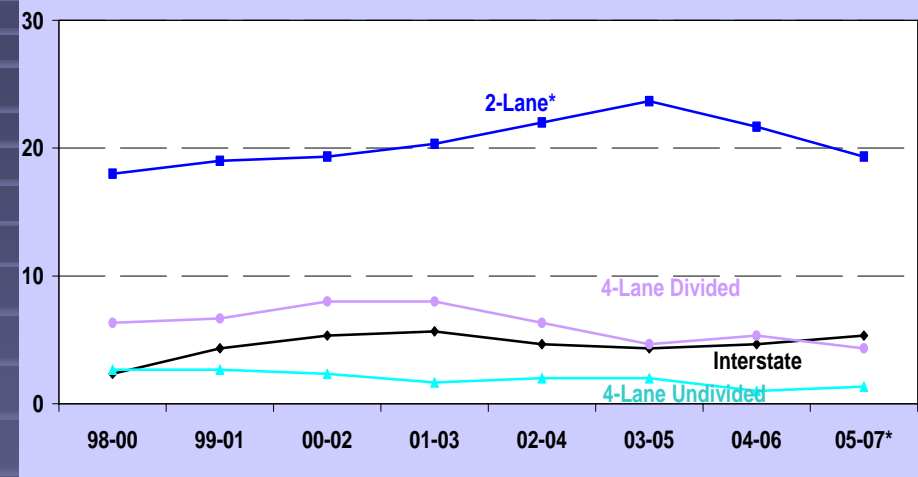
Statewide Measure: Number of roadway fatalities (3-year annual average).

Statewide Targets: Reduce fatalities to 600 by 2023 (- 0.26% per year). Improve 40 TH High Crash-Cost Locations annually.

### Fatalities by System ATP 1



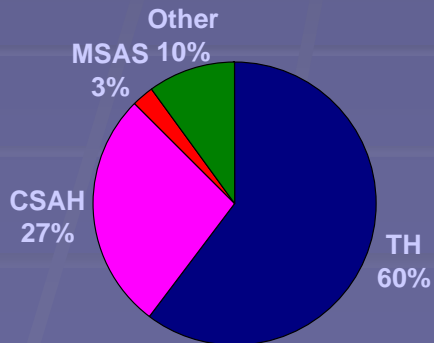
### TH Fatalities by Road Design ATP 1



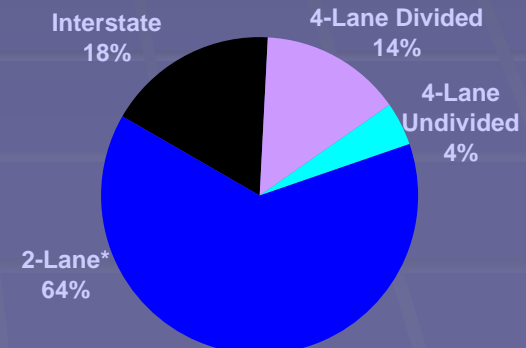
	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
TH	29	33	35	36	35	35	33	30
CSAH	23	20	21	19	20	17	14	14
MSAS	1	1	2	3	2	2	1	1
Other	4	4	5	8	9	8	5	5
<b>TOTAL</b>	<b>57</b>	<b>58</b>	<b>63</b>	<b>66</b>	<b>66</b>	<b>61</b>	<b>53</b>	<b>50</b>

	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	2	4	5	6	5	4	5	5
4-Lane Divided	6	7	8	8	6	5	5	4
4-Lane Undivided	3	3	2	2	2	2	1	1
2-Lane*	18	19	19	20	22	24	22	19
<b>TOTAL</b>	<b>29</b>	<b>33</b>	<b>35</b>	<b>36</b>	<b>35</b>	<b>35</b>	<b>33</b>	<b>30</b>

### Fatalities by System 05-07\* ATP 1

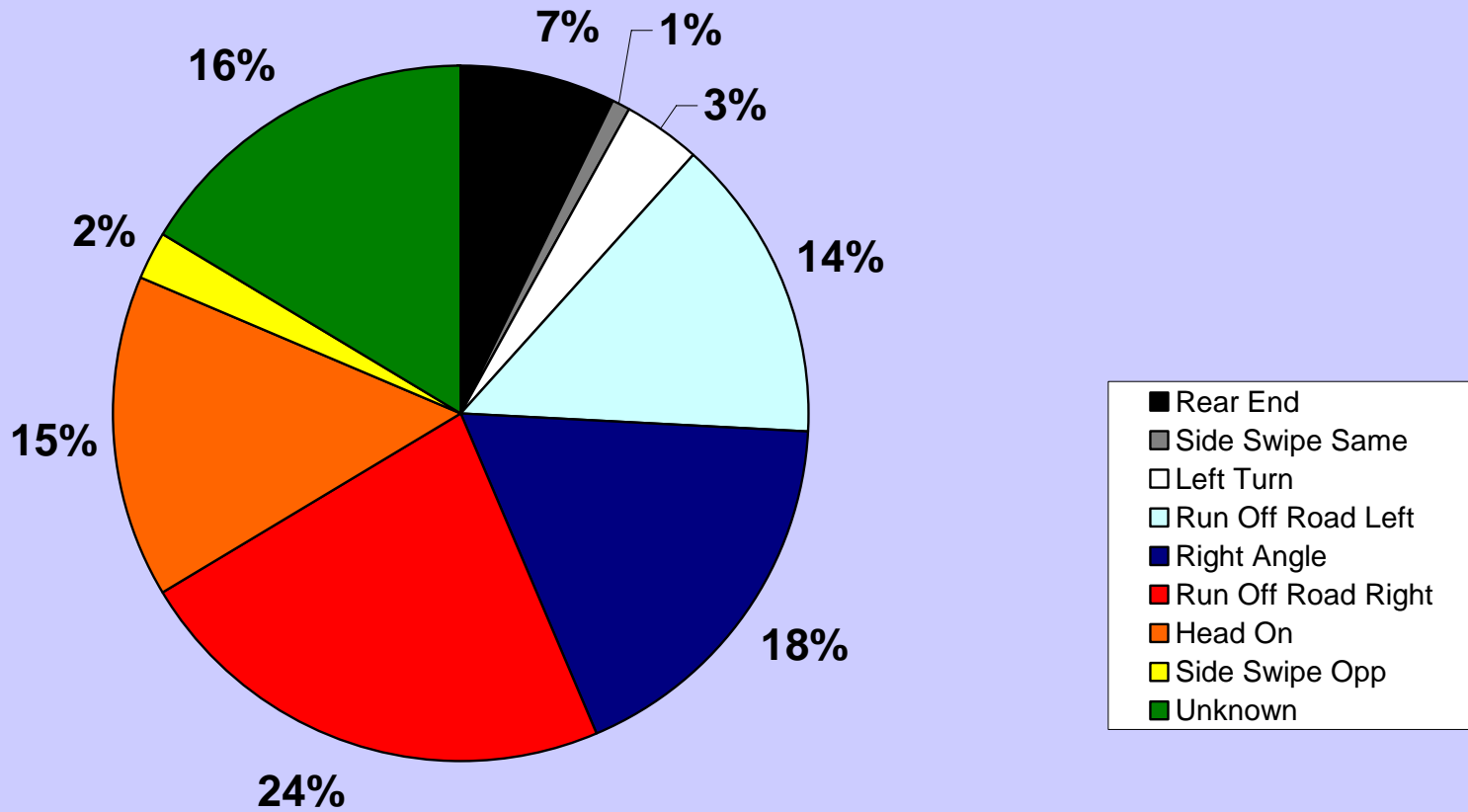


### TH Fatalities by Road Design 05-07\* ATP 1



# ATP 1 Fatal + A Crashes by Diagram

## ATP 1 - 2005-07\* TH Fatal + A Crashes

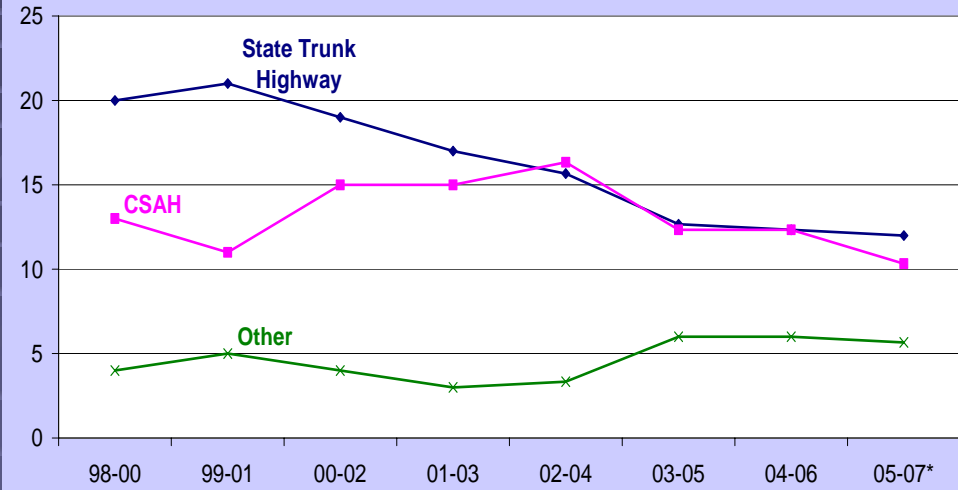


# Fatalities - District 2

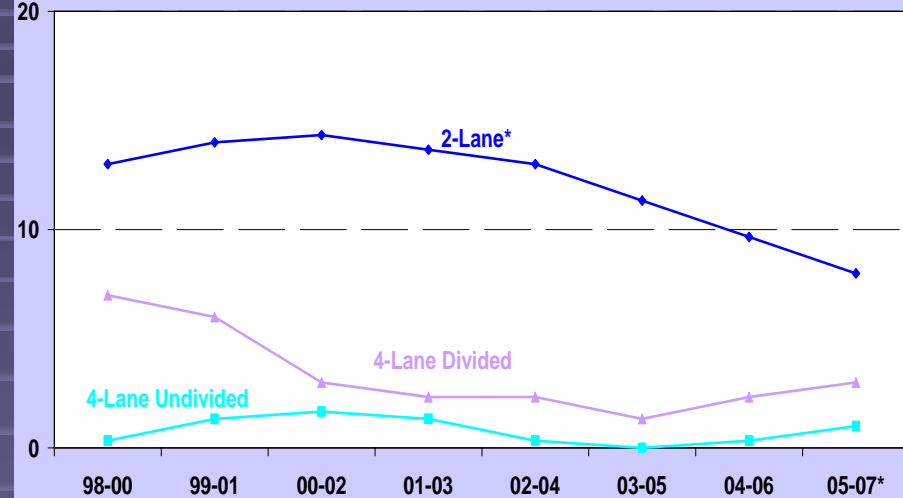
**Statewide Measure:** Number of roadway fatalities (3-year annual average).

**Statewide Targets:** Reduce fatalities to 600 by 2023 (– 0.26% per year). Improve 40 TH High Crash-Cost Locations annually.

### Fatalities by System ATP 2



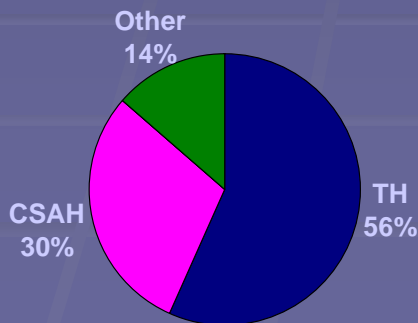
### TH Fatalities by Road Design - ATP 2



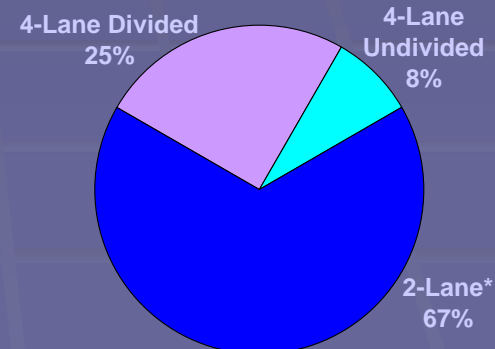
	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
TH	20	21	19	17	16	13	12	12
CSAH	13	11	15	15	16	12	12	10
MSAS	0	0	0	0	0	0	0	0
Other	4	5	4	3	3	6	6	6
<b>TOTAL</b>	<b>37</b>	<b>37</b>	<b>38</b>	<b>35</b>	<b>36</b>	<b>31</b>	<b>31</b>	<b>28</b>

ATP 2	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	0	0	0	0	0	0	0	0
4-Lane Divided	7	6	3	2	2	1	2	3
4-Lane Undivided	0	1	2	1	0	0	0	1
2-Lane*	13	14	14	14	13	11	10	8
<b>TOTAL</b>	<b>20</b>	<b>21</b>	<b>19</b>	<b>17</b>	<b>16</b>	<b>13</b>	<b>12</b>	<b>12</b>

### Fatalities by System 05-07\* ATP 2

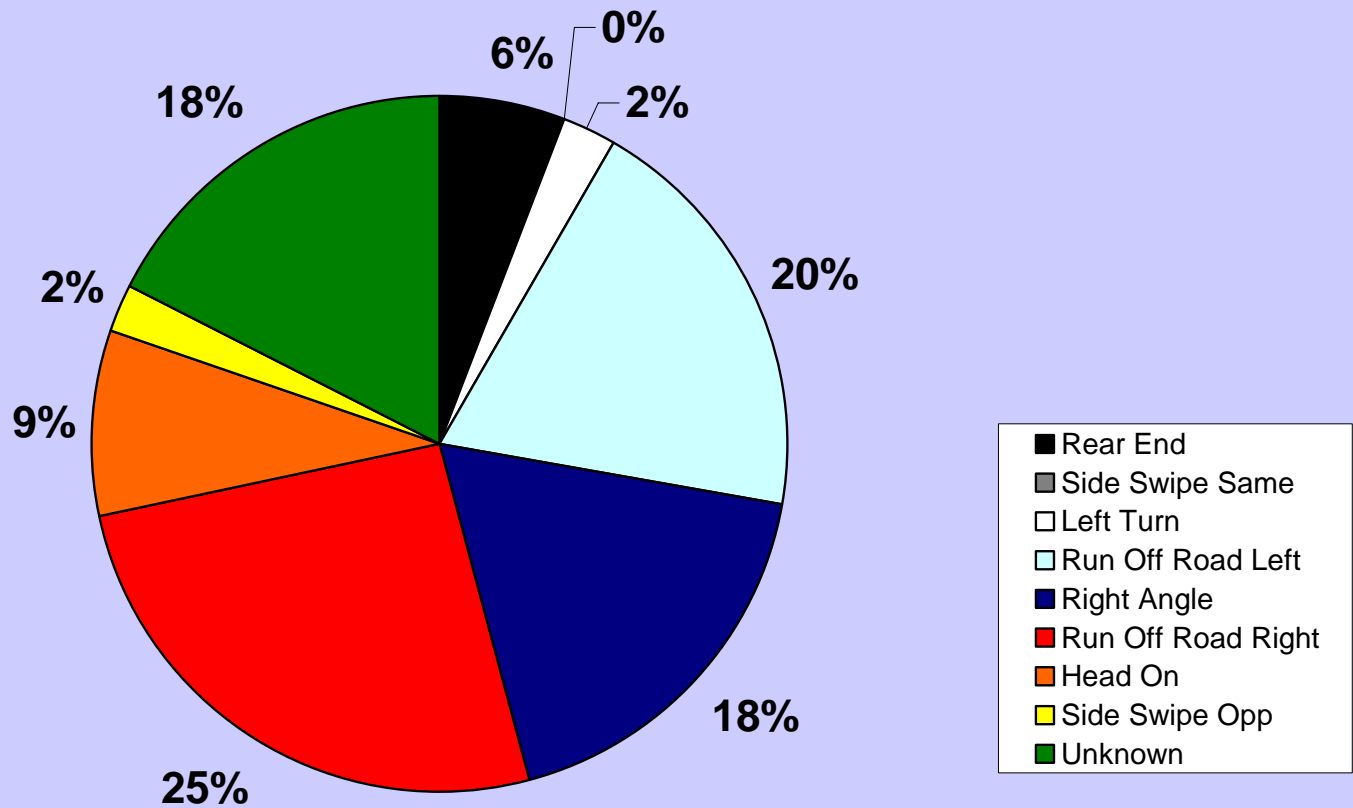


### TH Fatalities by Road Design 05-07\* ATP 2



## ATP 2 Fatal + A Crashes by Diagram

### ATP 2 - 2005-07\* TH Fatal + A Crashes

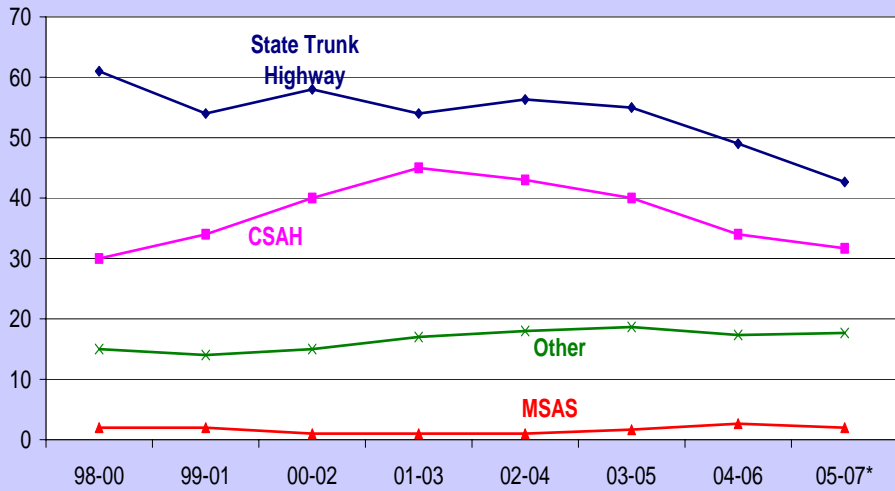


# Fatalities - District 3

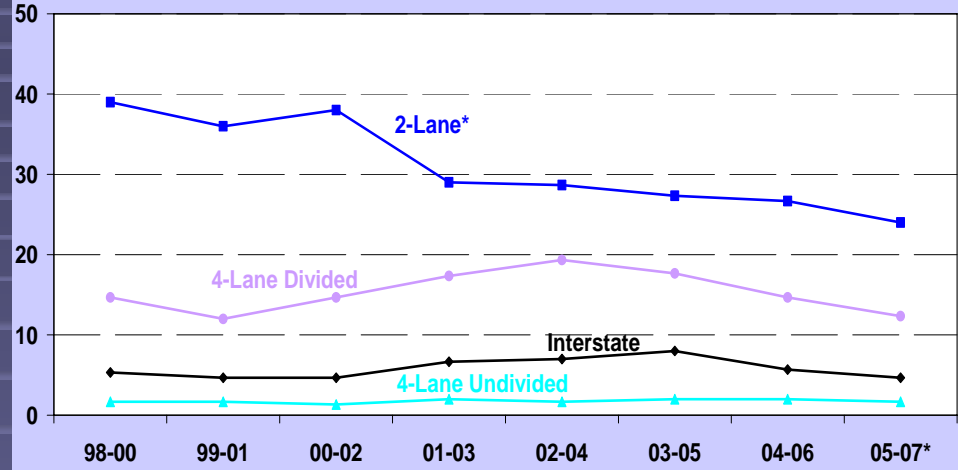
Statewide Measure: Number of roadway fatalities (3-year annual average).

Statewide Targets: Reduce fatalities to 600 by 2023 (- 0.26% per year). Improve 40 TH High Crash-Cost Locations annually.

### Fatalities by System ATP 3



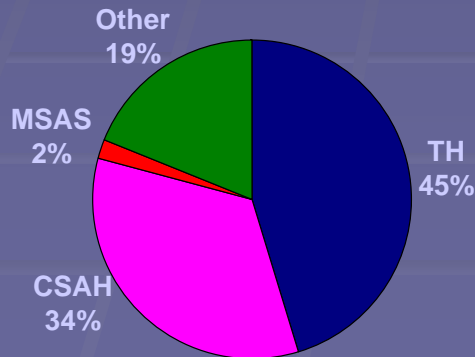
### TH Fatalities by Road Design ATP 3



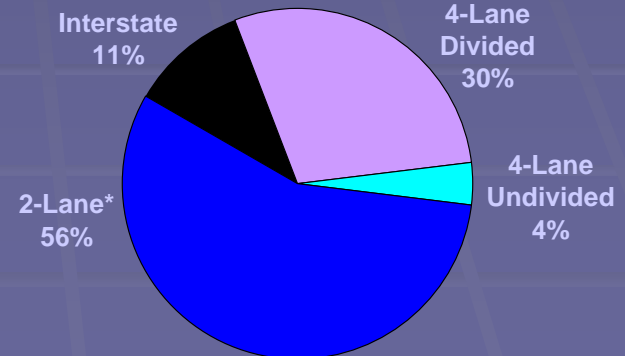
	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
TH	61	54	58	54	56	55	49	43
CSAH	30	34	40	45	43	40	34	32
MSAS	2	2	1	1	1	2	3	2
Other	15	14	15	17	18	19	17	18
TOTAL	108	104	114	117	118	115	103	94

ATP 3	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	5	5	5	7	7	8	6	5
4-Lane Divided	15	12	15	17	19	18	15	12
4-Lane Undivided	2	2	1	2	2	2	2	2
2-Lane*	39	36	38	29	29	27	27	24
TOTAL	61	54	59	55	57	55	49	43

### Fatalities by System 05-07\* ATP 3

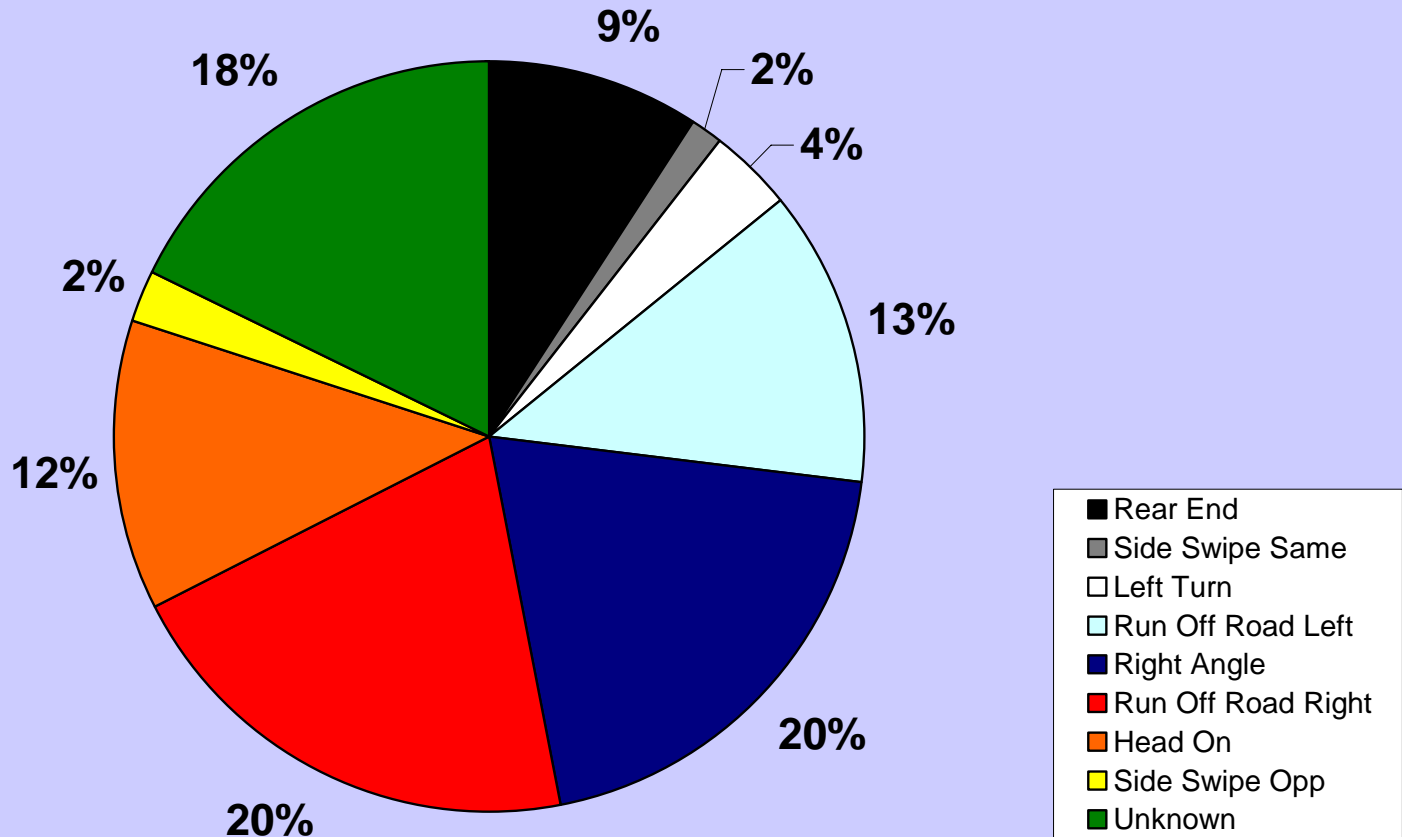


### TH Fatalities by Road Design 05-07\* ATP 3



## ATP 3 Fatal + A Crashes by Diagram

### ATP 3 - 2005-07\* TH Fatal + A Crashes

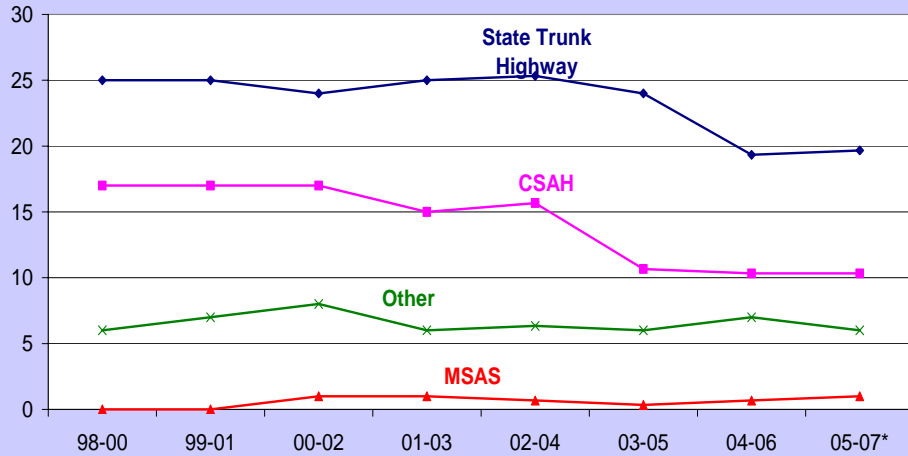


# Fatalities - District 4

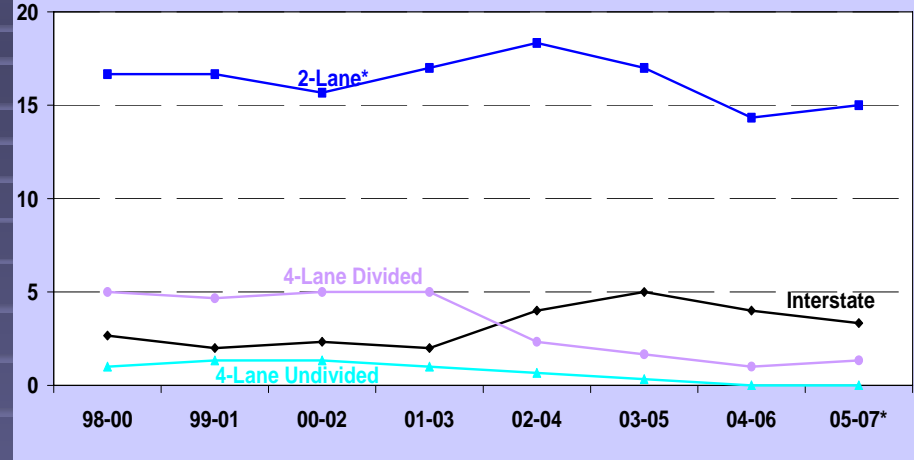
**Statewide Measure:** Number of roadway fatalities (3-year annual average).

**Statewide Targets:** Reduce fatalities to 600 by 2023 (- 0.26% per year). Improve 40 TH High Crash-Cost Locations annually.

### Fatalities by System ATP 4



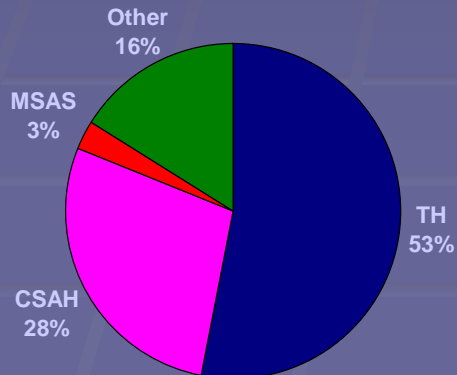
### TH Fatalities by Road Design ATP 4



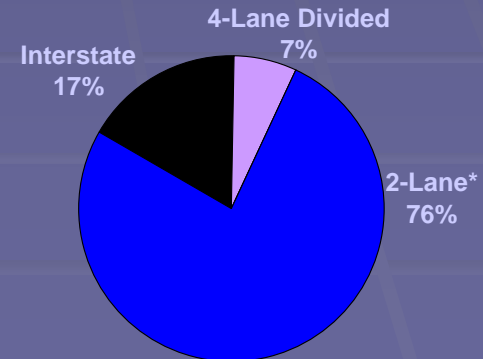
	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
TH	25	25	24	25	25	24	19	20
CSAH	17	17	17	15	16	11	10	10
MSAS	0	0	1	1	1	0	1	1
Other	6	7	8	6	6	6	7	6
<b>TOTAL</b>	<b>48</b>	<b>49</b>	<b>50</b>	<b>47</b>	<b>48</b>	<b>41</b>	<b>37</b>	<b>37</b>

ATP 4	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	3	2	2	2	4	5	4	3
4-Lane Divided	5	5	5	5	2	2	1	1
4-Lane Undivided	1	1	1	1	1	0	0	0
2-Lane*	17	17	16	17	18	17	14	15
<b>TOTAL</b>	<b>25</b>	<b>25</b>	<b>24</b>	<b>25</b>	<b>25</b>	<b>24</b>	<b>19</b>	<b>20</b>

### Fatalities by System 05-07\* ATP 4

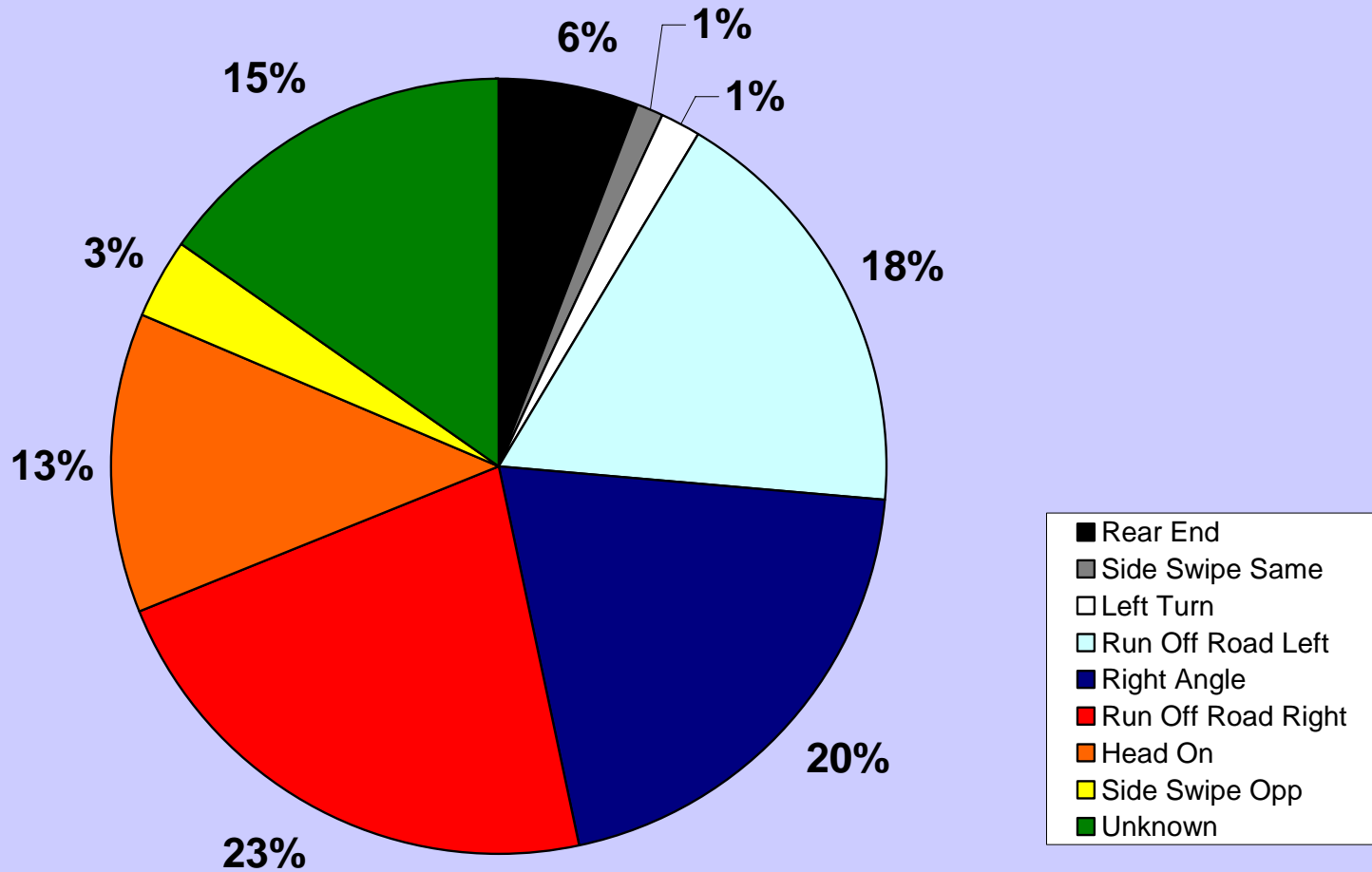


### TH Fatalities by Road Design 05-07\* ATP 4



## ATP 4 Fatal + A Crashes by Diagram

### ATP 4 - 2005-07\* TH Fatal + A Crashes

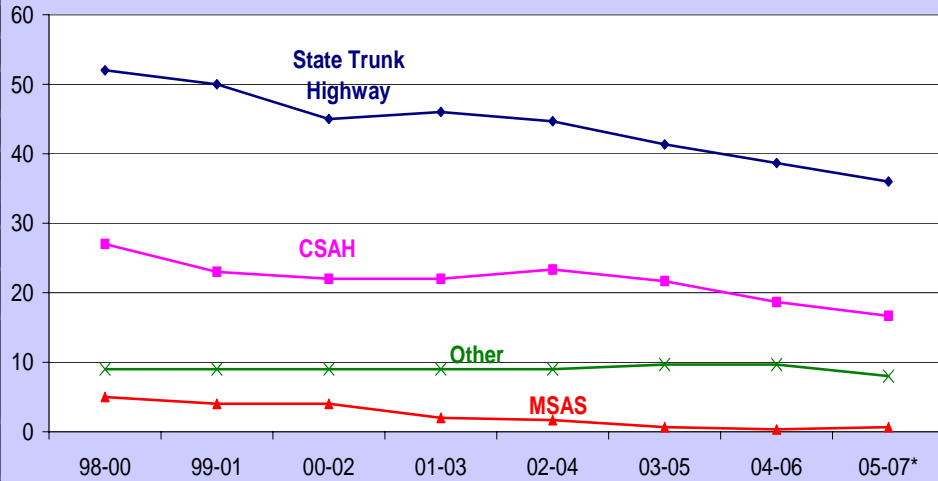


# Fatalities - District 6

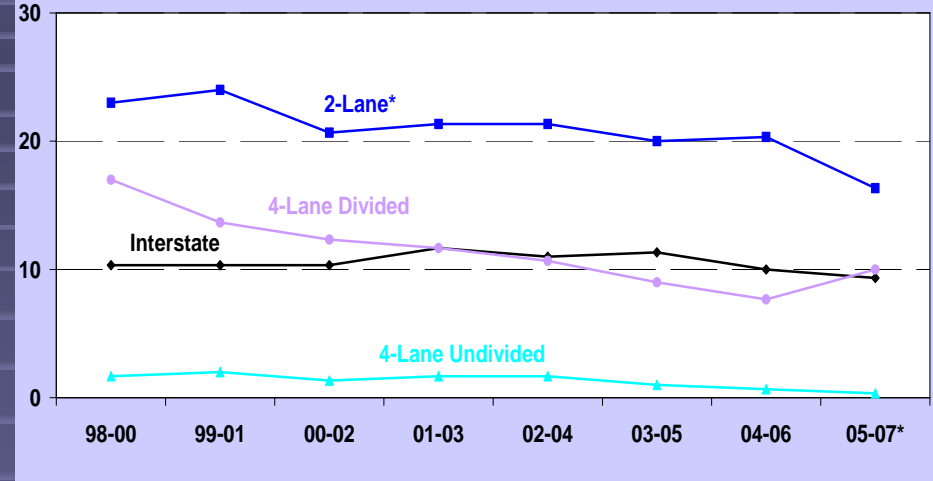
**Statewide Measure:** Number of roadway fatalities (3-year annual average).

**Statewide Targets:** Reduce fatalities to 600 by 2023 (- 0.26% per year). Improve 40 TH High Crash-Cost Locations annually.

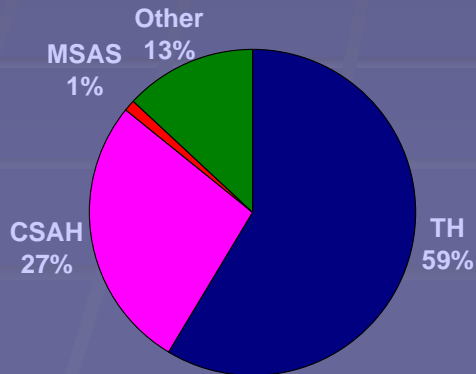
### Fatalities by System ATP 6



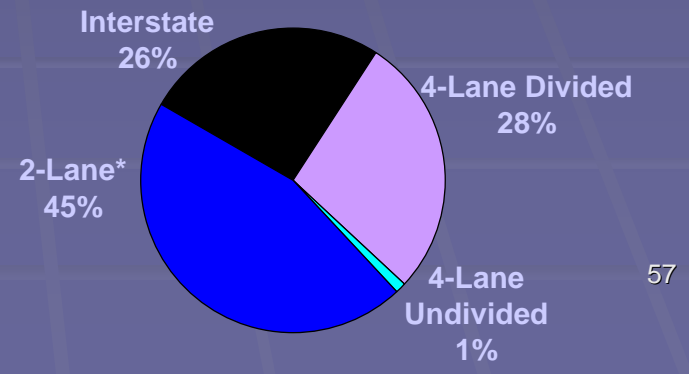
### TH Fatalities by Road Design ATP 6



### Fatalities by System 05-07\* ATP 6

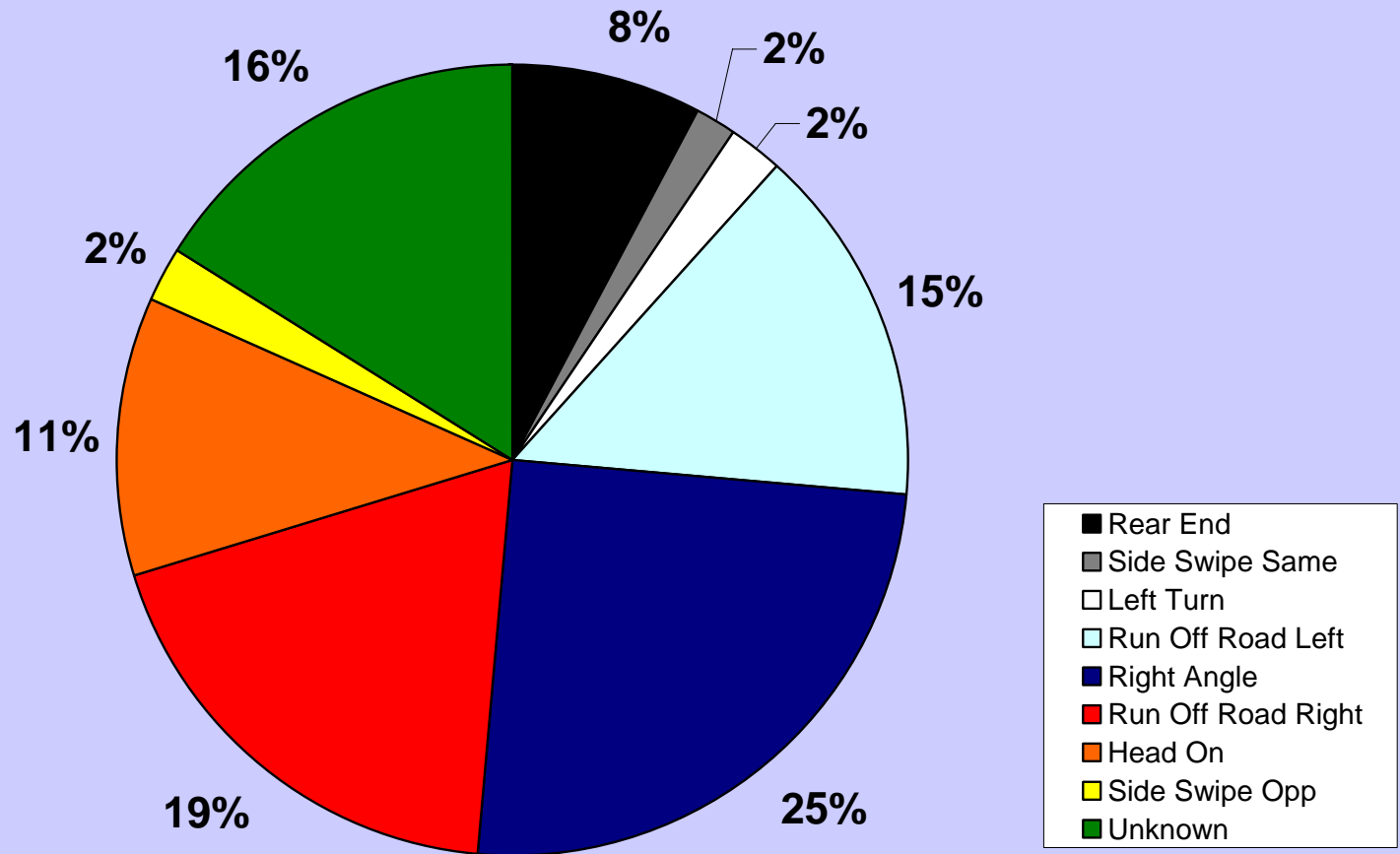


### TH Fatalities by Road Design 05-07\* ATP 6



## ATP 6 Fatal + A Crashes by Diagram

### ATP 6 - 2005-07\* TH Fatal + A Crashes

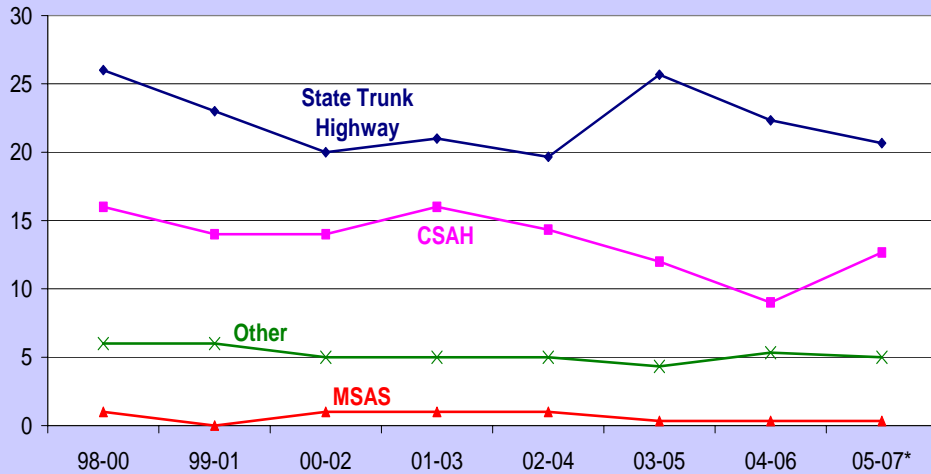


# Fatalities - District 7

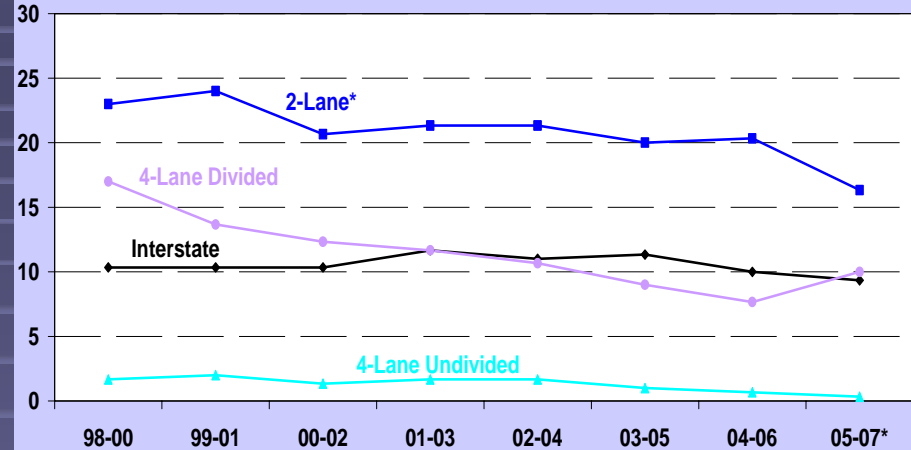
Statewide Measure: Number of roadway fatalities (3-year annual average).

Statewide Targets: Reduce fatalities to 600 by 2023 (- 0.26% per year). Improve 40 TH High Crash-Cost Locations annually.

### Fatalities by System ATP 7

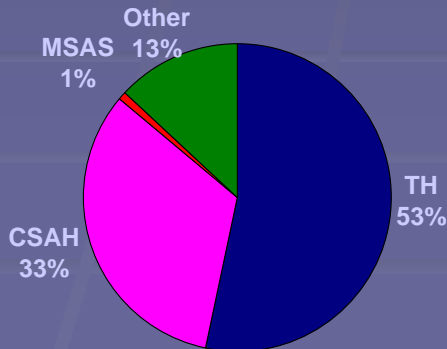


### TH Fatalities by Road Design ATP 7

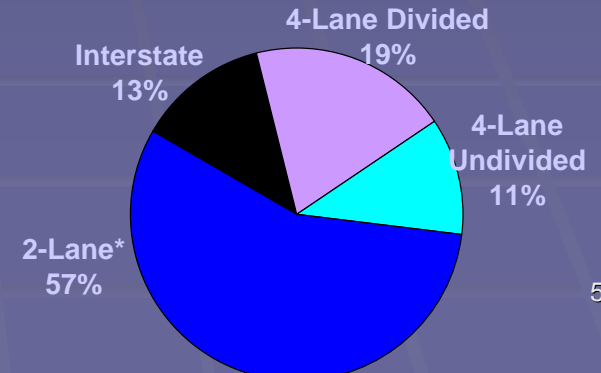


ATP 7	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	2	2	2	3	2	3	3	3
4-Lane Divided	3	4	3	5	5	7	5	4
4-Lane Undivided	3	1	1	0	1	1	2	2
2-Lane*	18	15	14	12	12	14	12	12
<b>TOTAL</b>	<b>26</b>	<b>23</b>	<b>19</b>	<b>20</b>	<b>20</b>	<b>26</b>	<b>22</b>	<b>21</b>

### Fatalities by System 05-07\* ATP 7

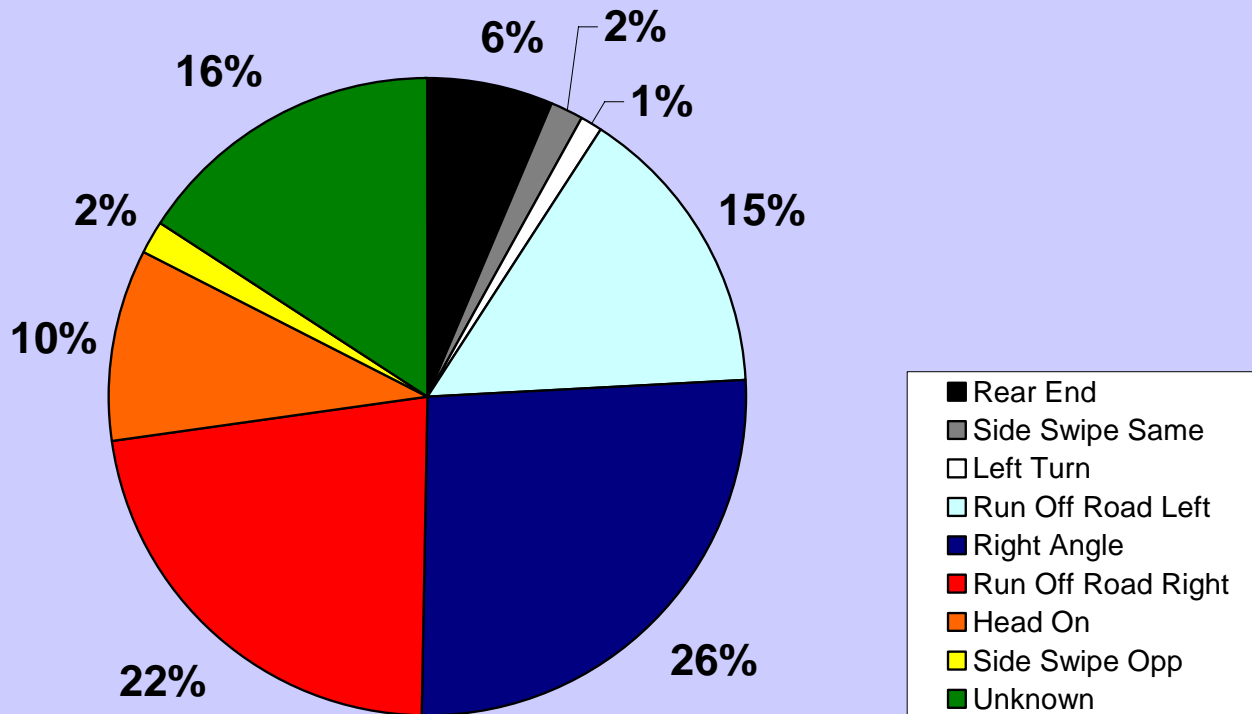


### TH Fatalities by Road Design 05-07\* ATP 7



## ATP 7 Fatal + A Crashes by Diagram

### ATP 7 - 2005-07\* TH Fatal + A Crashes

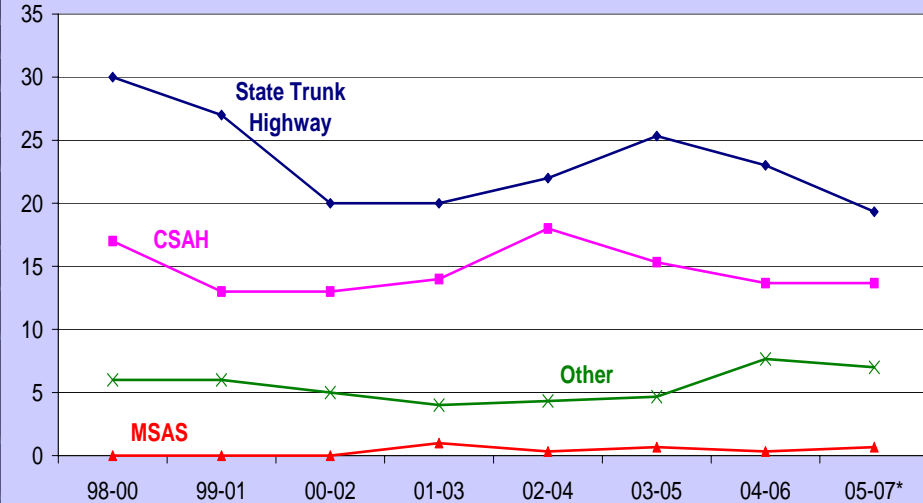


# Fatalities - District 8

Statewide Measure: Number of roadway fatalities (3-year annual average).

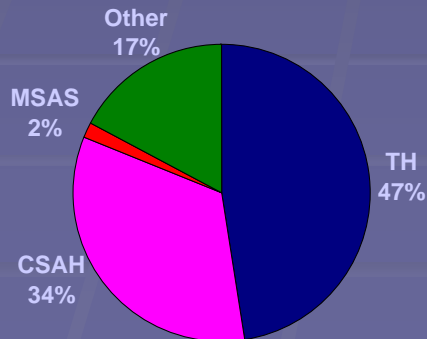
Statewide Targets: Reduce fatalities to 600 by 2023 (- 0.26% per year). Improve 40 TH High Crash-Cost Locations annually.

Fatalities by System  
ATP 8

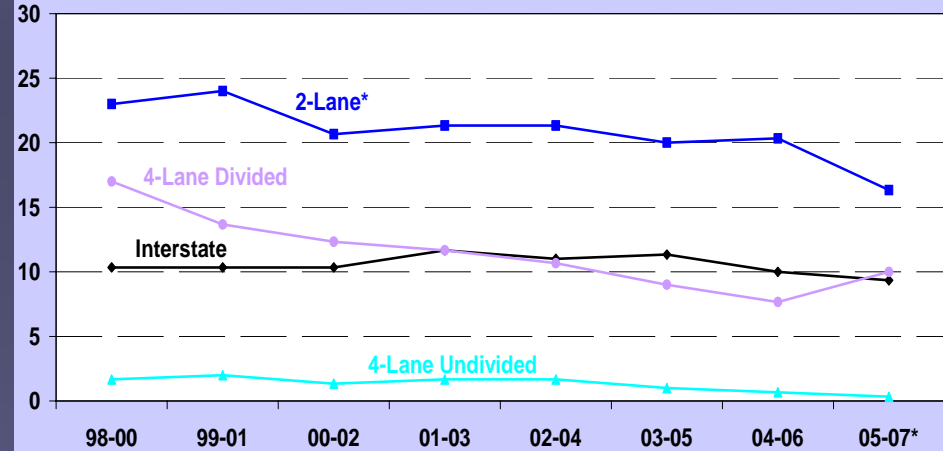


	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
TH	30	27	20	20	22	25	23	19
CSAH	17	13	13	14	18	15	14	14
MSAS	0	0	0	1	0	1	0	1
Other	6	6	5	4	4	5	8	7
<b>TOTAL</b>	<b>53</b>	<b>46</b>	<b>38</b>	<b>39</b>	<b>45</b>	<b>46</b>	<b>45</b>	<b>41</b>

Fatalities by System 05-07\*  
ATP 8

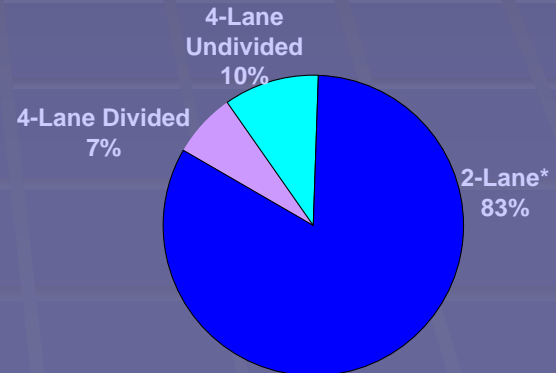


TH Fatalities by Road Design  
ATP 7



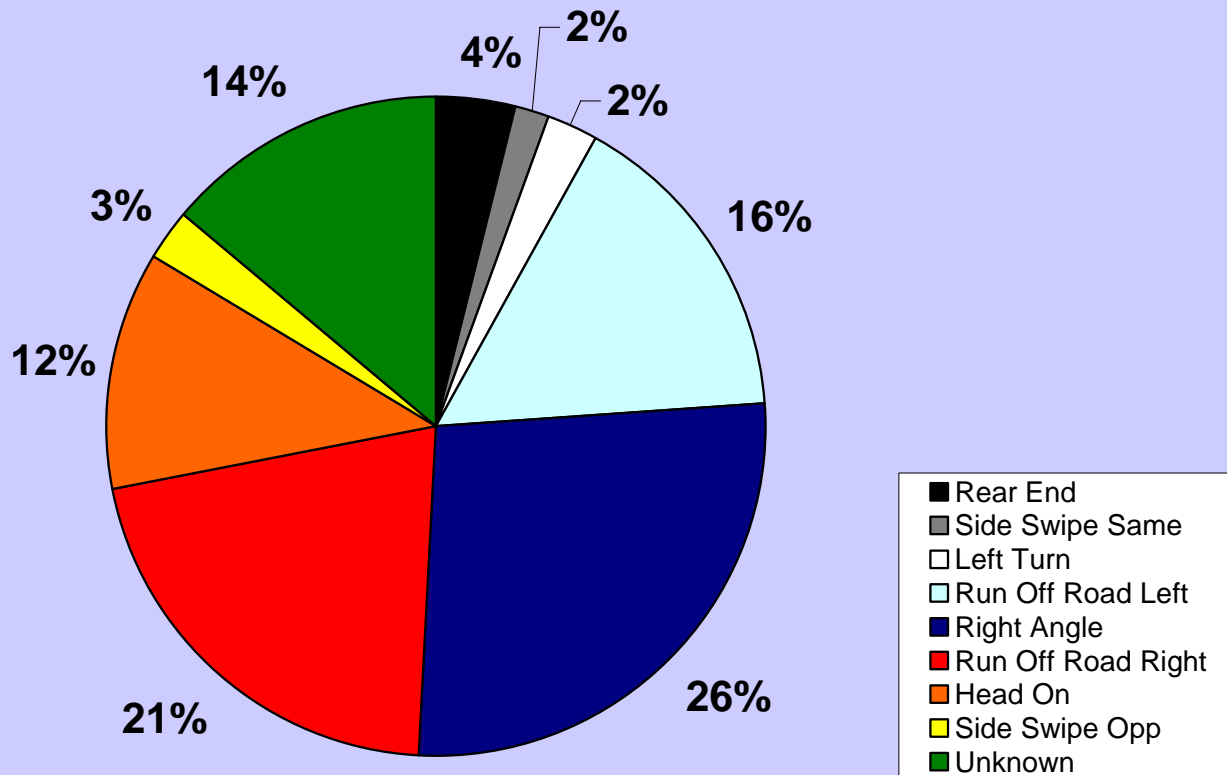
ATP 8	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	0	0	0	0	0	0	0	0
4-Lane Divided	2	3	2	1	2	2	3	1
4-Lane Undivided	2	2	1	1	1	2	2	2
2-Lane*	26	22	17	18	19	22	18	16
<b>TOTAL</b>	<b>30</b>	<b>27</b>	<b>20</b>	<b>20</b>	<b>22</b>	<b>25</b>	<b>23</b>	<b>19</b>

TH Fatalities by Road Design 05-07\*  
ATP 8



## ATP 8 Fatal + A Crashes by Diagram

### ATP 8 - 2005-07\* TH Fatal + A Crashes



## Fatalities on Trunk Highways 3-Year Average

STATE	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	57	58	62	65	61	59	53	51
4-Lane Divided	81	81	82	90	83	77	68	63
4-Lane Undivided	20	19	17	13	12	11	14	15
2-Lane*	171	162	159	153	159	156	140	126
<b>TOTAL</b>	<b>329</b>	<b>319</b>	<b>320</b>	<b>322</b>	<b>315</b>	<b>303</b>	<b>274</b>	<b>256</b>

Metro	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	34	34	37	37	32	27	26	26
4-Lane Divided	26	30	34	39	36	34	29	27
4-Lane Undivided	8	7	8	5	4	3	5	6
2-Lane*	18	15	20	22	25	21	17	16
<b>TOTAL</b>	<b>85</b>	<b>87</b>	<b>99</b>	<b>103</b>	<b>96</b>	<b>84</b>	<b>77</b>	<b>75</b>

ATP 1	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	2	4	5	6	5	4	5	5
4-Lane Divided	6	7	8	8	6	5	5	4
4-Lane Undivided	3	3	2	2	2	2	1	1
2-Lane*	18	19	19	20	22	24	22	19
<b>TOTAL</b>	<b>29</b>	<b>33</b>	<b>35</b>	<b>36</b>	<b>35</b>	<b>35</b>	<b>33</b>	<b>30</b>

ATP 2	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	0	0	0	0	0	0	0	0
4-Lane Divided	7	6	3	2	2	1	2	3
4-Lane Undivided	0	1	2	1	0	0	0	1
2-Lane*	13	14	14	14	13	11	10	8
<b>TOTAL</b>	<b>20</b>	<b>21</b>	<b>19</b>	<b>17</b>	<b>16</b>	<b>13</b>	<b>12</b>	<b>12</b>

ATP 3	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	5	5	5	7	7	8	6	5
4-Lane Divided	15	12	15	17	19	18	15	12
4-Lane Undivided	2	2	1	2	2	2	2	2
2-Lane*	39	36	38	29	29	27	27	24
<b>TOTAL</b>	<b>61</b>	<b>54</b>	<b>59</b>	<b>55</b>	<b>57</b>	<b>55</b>	<b>49</b>	<b>43</b>

ATP 4	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	3	2	2	2	4	5	4	3
4-Lane Divided	5	5	5	5	2	2	1	1
4-Lane Undivided	1	1	1	1	1	0	0	0
2-Lane*	17	17	16	17	18	17	14	15
<b>TOTAL</b>	<b>25</b>	<b>25</b>	<b>24</b>	<b>25</b>	<b>25</b>	<b>24</b>	<b>19</b>	<b>20</b>

ATP 6	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	10	10	10	12	11	11	10	9
4-Lane Divided	17	14	12	12	11	9	8	10
4-Lane Undivided	2	2	1	2	2	1	1	0
2-Lane*	23	24	21	21	21	20	20	16
<b>TOTAL</b>	<b>52</b>	<b>50</b>	<b>45</b>	<b>46</b>	<b>45</b>	<b>41</b>	<b>39</b>	<b>36</b>

ATP 7	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	2	2	2	3	2	3	3	3
4-Lane Divided	3	4	3	5	5	7	5	4
4-Lane Undivided	3	1	1	0	1	1	2	2
2-Lane*	18	15	14	12	12	14	12	12
<b>TOTAL</b>	<b>26</b>	<b>23</b>	<b>19</b>	<b>20</b>	<b>20</b>	<b>26</b>	<b>22</b>	<b>21</b>

ATP 8	98-00	99-01	00-02	01-03	02-04	03-05	04-06	05-07*
Interstate	0	0	0	0	0	0	0	0
4-Lane Divided	2	3	2	1	2	2	3	1
4-Lane Undivided	2	2	1	1	1	2	2	2
2-Lane*	26	22	17	18	19	22	18	16
<b>TOTAL</b>	<b>30</b>	<b>27</b>	<b>20</b>	<b>20</b>	<b>22</b>	<b>25</b>	<b>23</b>	<b>19</b>