

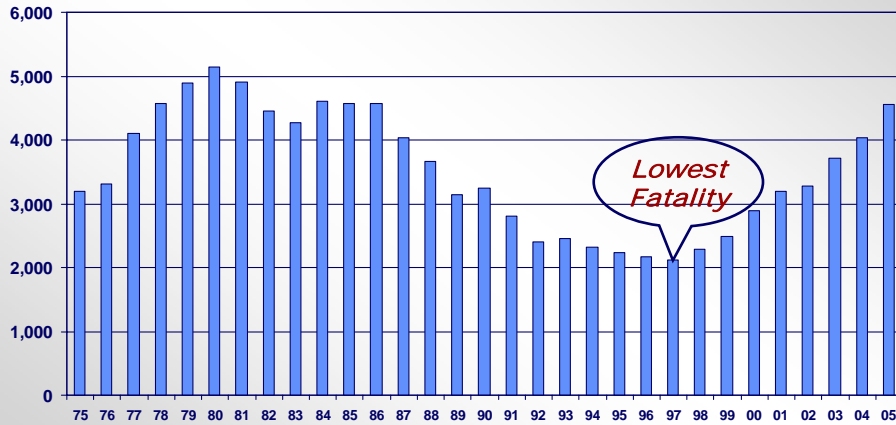
*Where the Increases are in
Motorcycle Rider Fatalities*

Presenter:
Dennis Utter
202-366-5351
dennis.utter@dot.gov

- **Motorcycle Rider Fatalities**
Increased 8th Year in a Row
Compared to 1997
 - **an increase of 115%**
 - **2,437 more fatalities**

- ◆ **Reaching the level last seen in 1986**

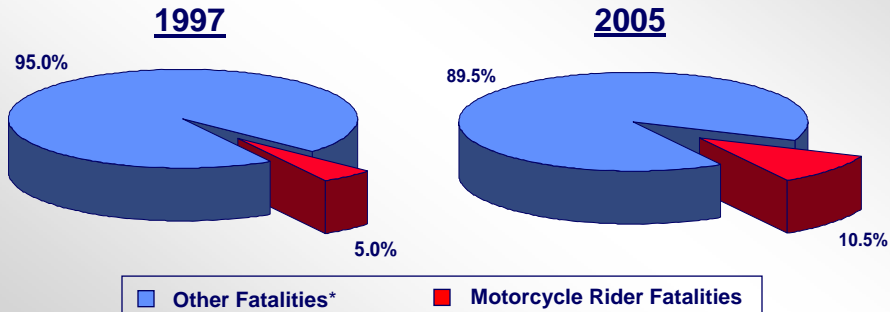
Motorcycle Riders Killed, by Year



Source: FARS

Proportion of Total Fatalities, by Role and Year

Motorcycle rider fatalities **increased to 10.5%** of all motor vehicle traffic crash fatalities compared to **5.0%** in 1997



* Passenger Vehicle Occupants, Other occupants and Nonoccupants

Source: FARS

Total vs. Motorcycle Rider Fatalities by Year, 1997-2005

Fatalities	Year								
	1997	1998	1999	2000	2001	2002	2003	2004	2005
Total	42,013	41,501	41,717	41,945	42,196	43,005	42,884	42,836	43,443
Change	---	-512	+216	+228	+251	+809	-121	-48	+607
Motorcycle Riders	2,116	2,294	2,483	2,897	3,197	3,270	3,714	4,028	4,553
Change	---	+178	+189	+414	+300	+73	+444	+314	+525
% Change	---	8.4%	8.2%	17%	10%	2.3%	14%	8.5%	+13%
Cumulative Change	---	+178	+367	+781	+1,081	+1,154	+1,598	+1,912	+2,437
Percent of all Fatalities	5.0%	5.5%	6.0%	6.9%	7.6%	7.6%	8.7%	9.4%	10.5%

Source: FARS

Motor Vehicle Crash Fatalities by Person Type and Year

Year	Person Type				Total
	Passenger Vehicle Occupants*	Motorcycle Riders	Nonoccupants**	Other Occupants***	
1996	32,437	2,161	6,368	1,099	42,065
1997	32,448	2,116	6,288	1,161	42,013
1998	31,899	2,294	6,119	1,189	41,501
1999	32,127	2,483	5,842	1,265	41,717
2000	32,225	2,897	5,597	1,226	41,945
2001	32,043	3,197	5,756	1,200	42,196
2002	32,843	3,270	5,630	1,262	43,005
2003	32,271	3,714	5,543	1,356	42,884
2004	31,866	4,028	5,532	1,410	42,836
2005	31,415	4,553	5,849	1,626	43,443

* Include occupants of passenger cars, vans, SUVs, pickups and other light trucks

** Include pedestrians, pedalcyclists and other/unknown non-occupants

*** Include occupants of large trucks, buses & other/unknown vehicle types

Source: FARS

Motorcycle Rider Fatalities and Fatality Rates, by Year, 1997-2005

- *Motorcycle rider fatalities and motorcycle registrations have both been on the rise since 1997*
- *However, in most of these years the rate of increase in motorcycle rider fatalities has been higher than the rate of increase in motorcycle registrations (as reflected in the rate increase).*

Rate	Year								
	1997	1998	1999	2000	2001	2002	2003	2004	2005
Motorcycle Rider Fatalities	2,116	2,294	2,483	2,897	3,197	3,270	3,714	4,028	4,553
/100M MC VMT	20.99	22.31	23.46	27.67	33.17	34.23	38.78	39.79	42.27
/100K Reg. Vehicles	55.30	59.13	59.80	66.66	65.20	65.35	69.16	69.83	73.12
/100K Population	0.79	0.85	0.91	1.03	1.12	1.14	1.27	1.37	1.53

Source: FARS, FHWA

Where the Increases are

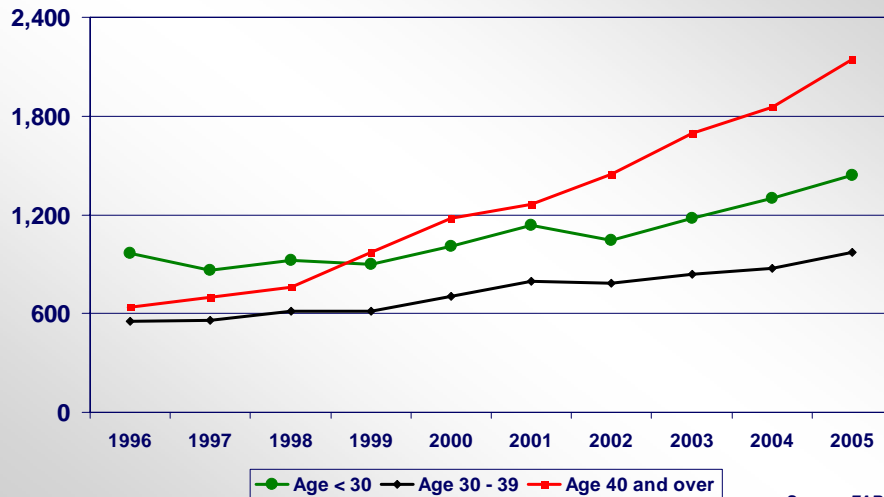
- **10-Year Trend by Age Group Shows**
 - ◆ *Increases in every age group*
 - ◆ *But largest increases in Older Population*
- **10-Year Trend by Engine Size Shows**
 - ◆ *Increases in Larger Size Motorcycles*

Motorcycle Rider Fatalities by Age Group and Year

Year	Age Group							Total
	< 20	20-29	30-39	40-49	50-59	> 59	Unknown	
1996	202	763	555	420	151	70	0	2,161
1997	166	694	556	405	207	87	1	2,116
1998	201	720	612	475	199	86	1	2,294
1999	137	761	612	570	286	117	0	2,483
2000	189	818	707	677	348	153	5	2,897
2001	211	925	798	729	383	149	2	3,197
2002	177	866	781	770	496	178	2	3,270
2003	229	950	839	904	575	215	2	3,714
2004	252	1,046	876	971	649	234	0	4,028
2005	272	1,166	971	1,019	761	363	1	4,553

Source: FARS

Motorcycle Riders Killed, by Age Group and Year

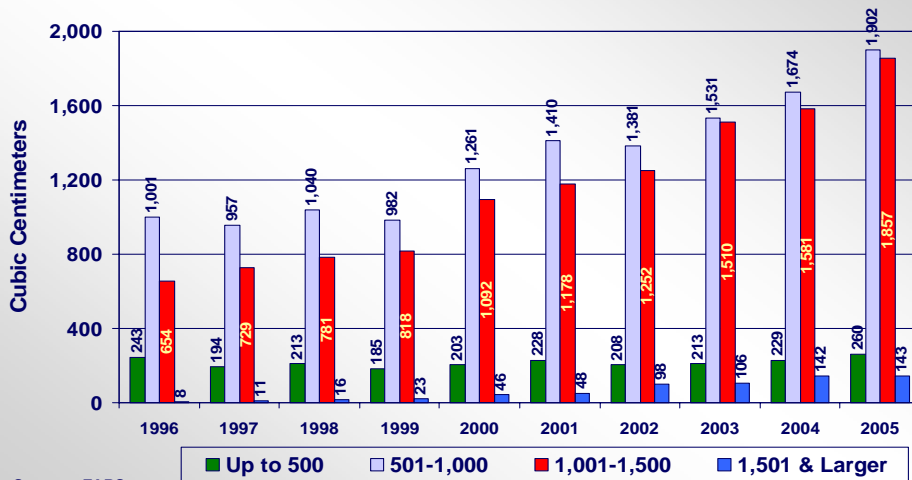


Motorcycle Rider Fatality Rate* by Age Group and Year

Year	Age Group						Total
	< 20	20-29	30-39	40-49	50-59	> 59	
1996	0.26	2.09	1.27	1.07	0.60	0.16	0.81
1997	0.22	1.91	1.28	1.02	0.77	0.20	0.79
1998	0.26	1.99	1.43	1.17	0.71	0.19	0.85
1999	0.18	2.10	1.45	1.37	0.98	0.26	0.91
2000	0.23	2.13	1.64	1.58	1.11	0.33	1.03
2001	0.26	2.39	1.86	1.67	1.17	0.32	1.12
2002	0.22	2.21	1.83	1.74	1.47	0.38	1.14
2003	0.28	2.38	1.99	2.02	1.65	0.44	1.27
2004	0.31	2.58	2.11	2.15	1.80	0.48	1.37
2005	0.33	2.84	2.36	2.25	2.04	0.73	1.54

* Per 100,000 population. Source: FARS & Census Bureau

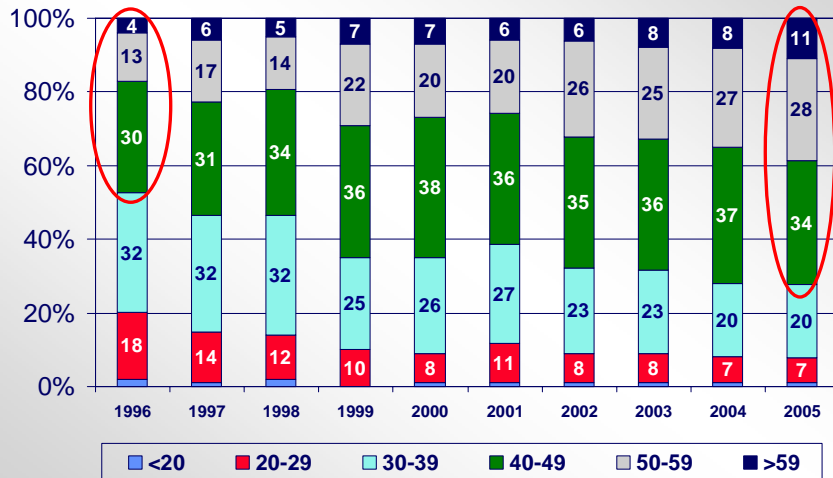
Motorcycle Riders Killed by Engine Size and Year



- **10-Year Trend by Age Group Shows**
 - ◆ Significant Increases in use by Older Population
 - ◆ **Most with 50+ Age Group**

Year	Age Group							Total
	< 20	20-29	30-39	40-49	50-59	> 59	Unknown	
1996	15	119	211	198	85	26	0	654
1997	8	99	232	225	124	41	0	729
1998	17	91	252	267	111	42	1	781
1999	3	79	205	294	177	60	0	818
2000	9	92	282	416	215	75	3	1,092
2001	12	125	313	420	236	71	1	1,178
2002	9	105	290	443	324	81	0	1,252
2003	18	122	342	541	371	116	0	1,510
2004	13	108	319	583	426	132	0	1,581
2005	17	137	366	624	515	197	1	1,857

Source: FARS



Source: FARS

- ◆ *Mean age of motorcycle rider killed is increasing*
- ◆ *Mean engine size of motorcycle involved in a fatal crash is increasing*

*Mean Age of Motorcycle Rider Killed
 and Mean Engine Size Involved in
 Fatal Crashes*

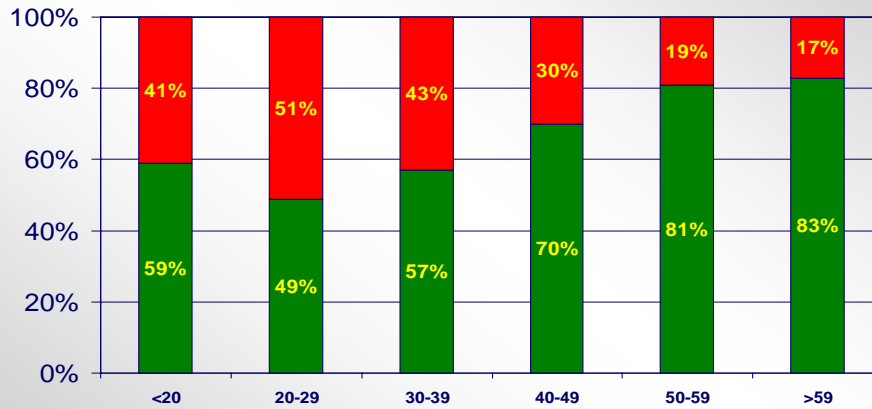
Year	Mean Age (yrs.)	Mean Engine Size (cc)
1996	33.4	866
1997	34.8	897
1998	34.6	902
1999	36.5	927
2000	36.8	961
2001	36.3	957
2002	37.9	1,002
2003	38.0	1,014
2004	38.0	1,015
2005	38.8	1,018

Source: FARS

*Factors involved in Fatal
 Motorcycle Crashes*

- **Speeding**
- **Alcohol**
- **Licensing**
- **Day of Week
/ Time of Day**

Motorcycle Operators Killed by Speeding Factor and Age Group

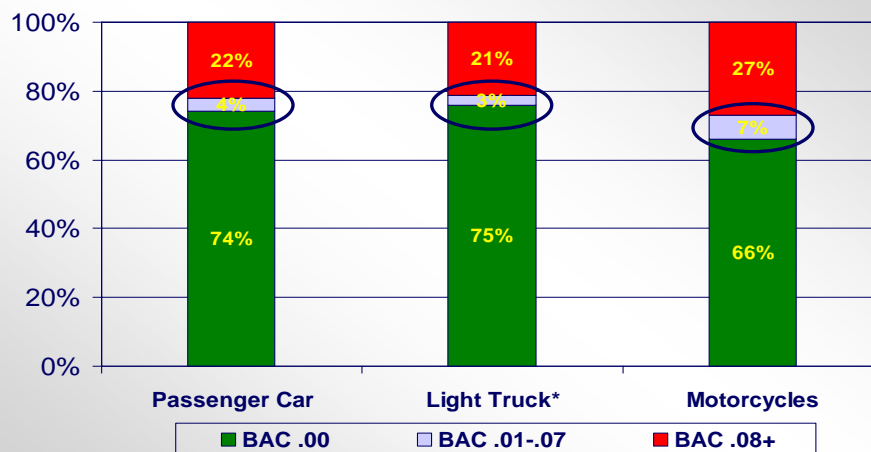


Source: 2005 FARS

*Speeding cited as a factor in the crash.

■ Not Speeding
 ■ Speeding*

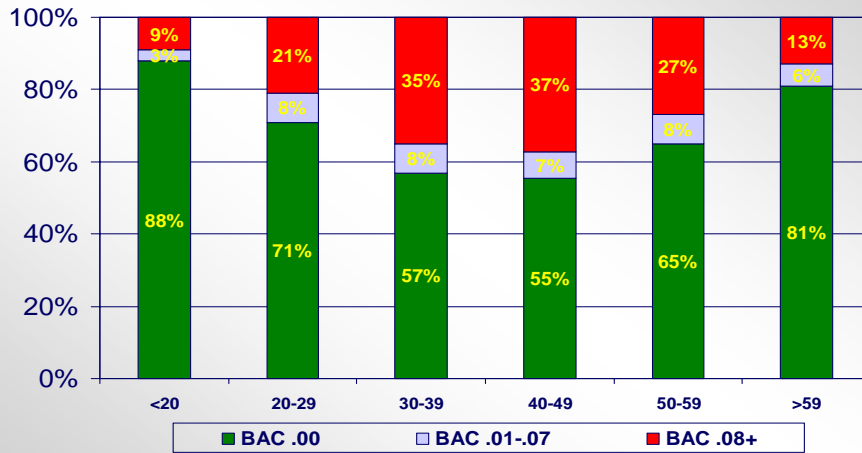
Comparison of Driver/Operator Alcohol Involvement in Fatal Crashes by Vehicle Type



*Includes SUVs, Vans and Pickups

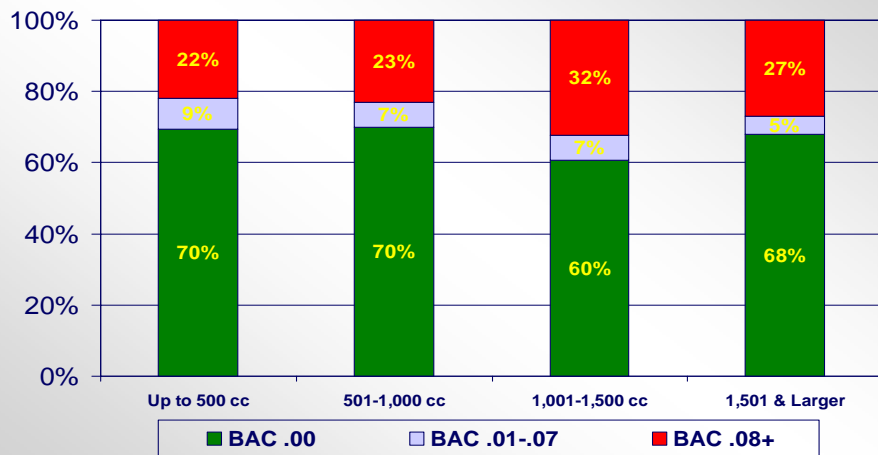
Source: 2005 FARS

Motorcycle Operators Killed by Alcohol Level and Age Group



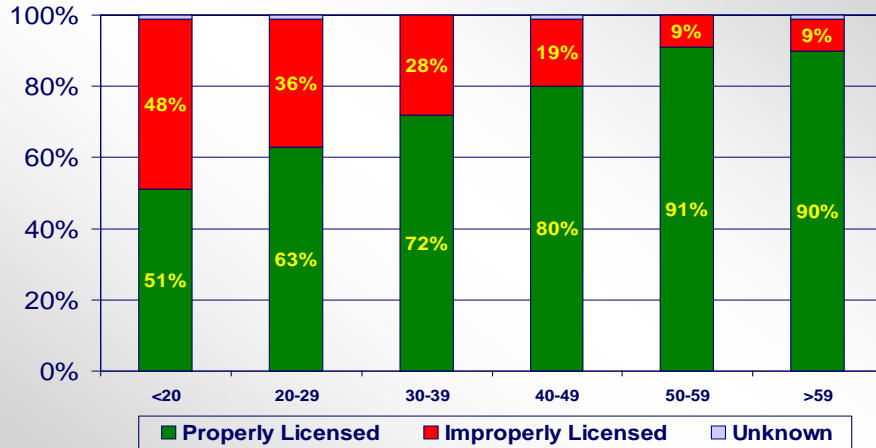
Source: 2005 FARS

Motorcycle Operators Killed by Alcohol Level and Engine Size



Source: 2005 FARS

Motorcycle Operators Killed by Licensing and Age Group



Source: 2005 FARS

SAE GovInd Meeting

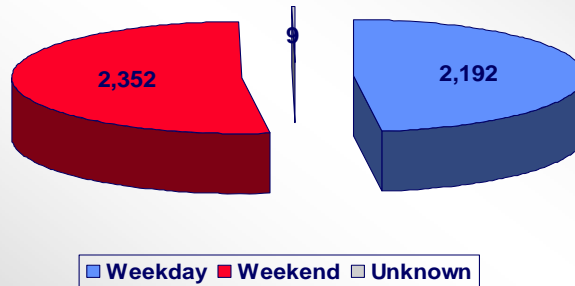
May 14, 2007

NHTSA's National Center for Statistics & Analysis

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Motorcycle Rider Fatalities by Day of Week

Based on the number of hours, there were **more than twice** as many motorcycle rider fatalities during **weekends** than during weekdays (18 vs. 8)



Weekday = 6 a.m. **Monday** through 5:59 p.m. **Friday**
Weekend = 6 p.m. **Friday** through 5:59 a.m. **Monday**

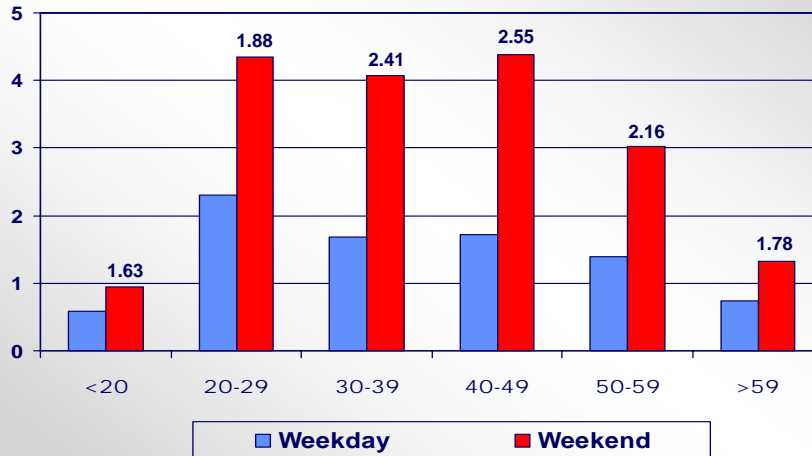
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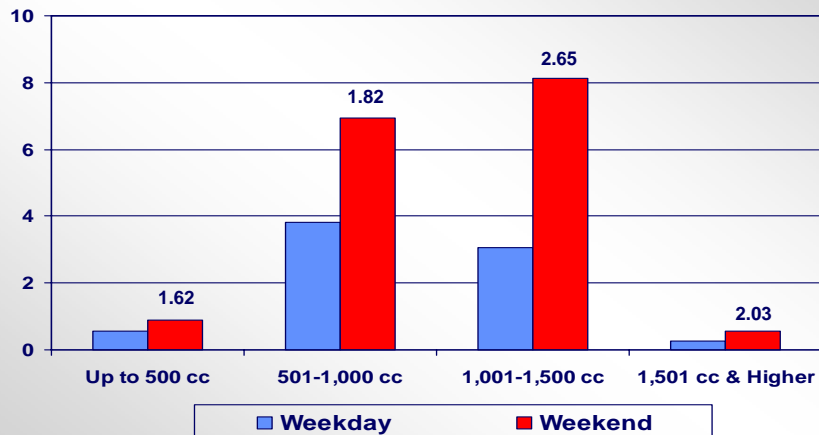
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Motorcycle Rider Fatalities by Age Group and Day of Week



Motorcycle Rider Fatalities by Engine Size and Day of Week



- **Fatal crash data shows**
 - ◆ **Increasing age of motorcycle riders**
 - **Increases in 40-and-older age group**
 - ◆ **Increasing size of motorcycles involved**
 - **Increases on larger motorcycles**
- **Fatality rate data shows**
 - ◆ **Overall increase in rate by vehicle miles traveled and registered vehicles**
 - ◆ **Large increases in 40-and-older age group**

- **Crash Data**
 - ◆ **Fatality Analysis Reporting System**
 - **2005 Annual Report File (Final File in 2004 and prior years)**
- **Exposure Data**
 - ◆ **Vehicle Miles of Travel**
 - **Federal Highway Administration**
 - ◆ **Population Estimates (based on 2000 Census)**
 - **Census Bureau**
 - ◆ **Registered Vehicles**
 - **Federal Highway Administration**

