

Historical Perspective of Motorcycle Helmet Laws

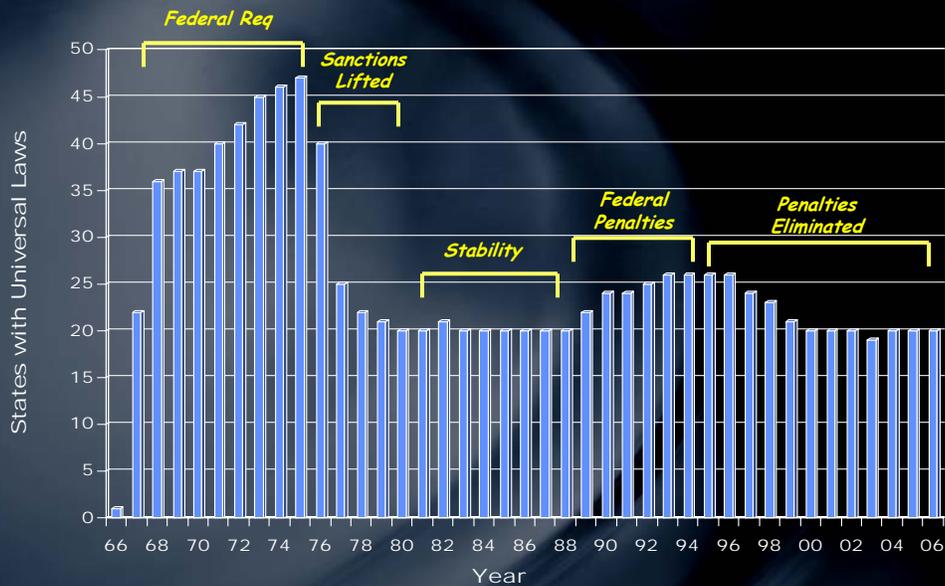
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Introduction

- **40 year history of Motorcycle Helmet Laws**
 - ◆ Federal & State legislation
 - ◆ Broken into 5 periods
 - ◆ Cyclical pattern of enactment and repeal of federal sanctions/incentives & state laws
- **An extremely heated debate over laws**

States with Universal Helmet Use Laws



Early History of Motorcycle Helmet Laws

- **1966: Highway Safety Act**
 - ◆ States were required to have universal helmet law or
 - ◆ Highway construction funds withheld
- **As of 1975: 47 States & DC enact universal laws**

Motorcycle Helmet Legislation History 1975-1980 & 1981-1988

1975: Congress repealed requirement and penalties

- ◆ 28 States repeal universal helmet laws
- ◆ 1980: 19 States & DC with universal helmet laws
- **1981-1988: Period of relative quiet**
 - ◆ 1982: Louisiana re-enacted its law
 - ◆ 1983: Wyoming repealed its law

1989-1994: Federal Penalties

1990 GAO Study

- **With universal laws: helmet use 92-100%**
- **Without laws: helmet use 42-59%**
- **Lower injury & fatality rates associated with introduction of universal helmet law**
- **Higher head injury & medical costs in laws' absence**

1989-1994 continued

- **1991 ISTEA passed**
 - ◆ Provided incentive grants to States for enacting universal helmet laws
 - ◆ Transfer program effective in 1995
- **1995: 26 States have universal laws (up from 20 in 1988)**
- **1995: Congress repealed ISTEA**

1995 to Present: Penalties Eliminated

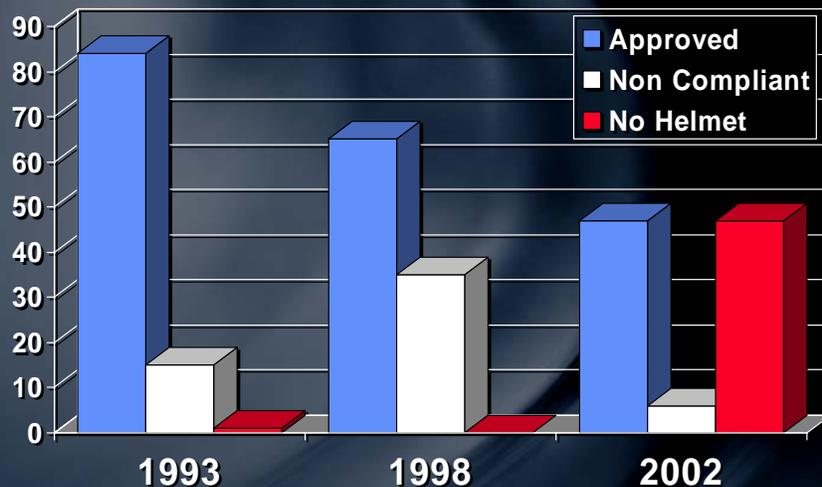
- **1996-2003: 7 States repealed universal laws**
- **2004: Louisiana re-enacted law**
- **2006:**
 - ◆ 20 States, DC, & Puerto Rico have universal laws
 - ◆ 27 States have laws for younger riders
 - ◆ 3 States have no helmet laws

How Law Change Affected Florida

- On July 1, 2000, Florida repealed the legal requirement that all motorcyclists wear protective helmets
- State law requires use only by riders
 - ◆ Under the age of 21
 - ◆ Or by older riders who have less than \$10,000 medical insurance coverage

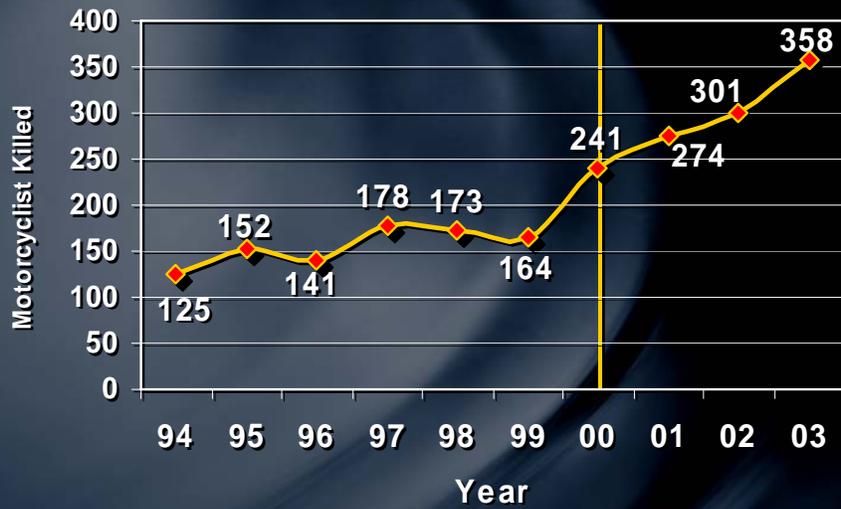
Observed Helmet Use

Source: Center for Urban Transportation Research, special observation studies (1998,2004)



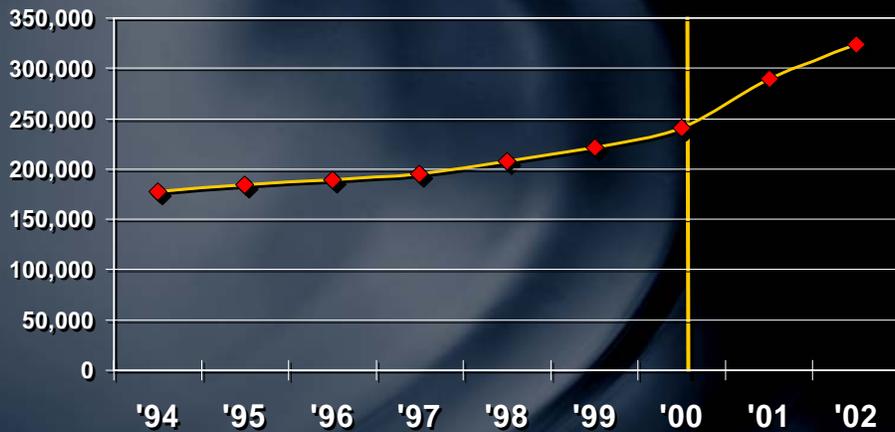
Motorcyclists Killed In Florida

1994-2003 (Source: FARS)



Annual Florida Motorcycle Registration

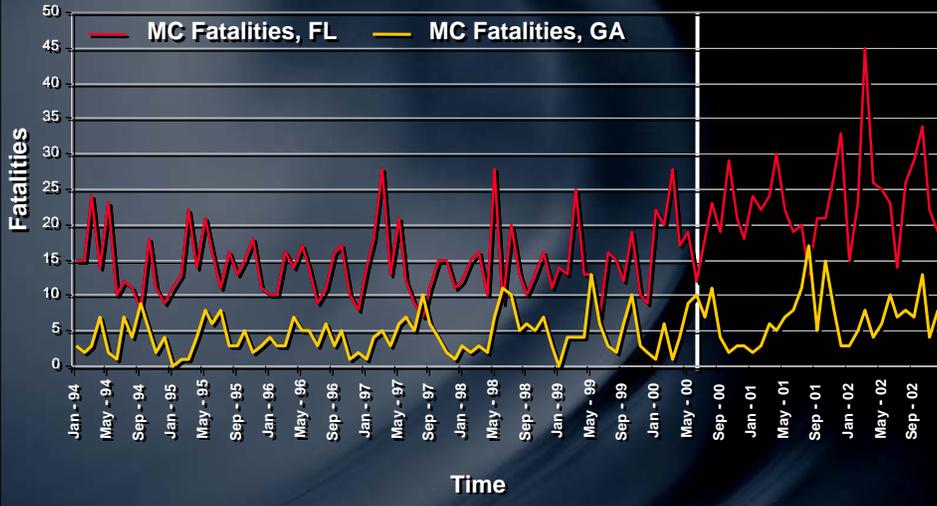
Source: FL DHSMV



Time Series Analysis

Source: FARS, FL DHSMV & FHWA

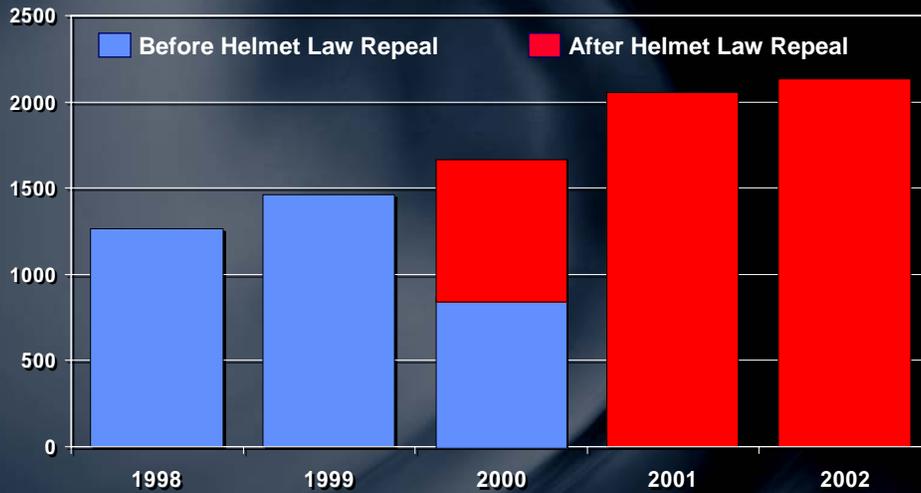
Time Series: Motorcycle Fatalities, Florida vs Georgia (FARS 1994-2002)



Medical Costs & Insurance Coverage

- Many States require helmet use only for adult riders who have limited insurance
- Florida after repeal
 - ◆ 75% of head injured motorcyclists were charged \$12,000 or more
 - ◆ Less than 25% of the injured would be covered by the \$10,000 medical insurance requirement

Motorcyclists Admitted to 240 Florida Hospitals for Treatment



Source: Florida Agency for Health Care Administration

Head-Brain-Skull Injury Treatment Costs

Before and After Law Change

Period	Number of Cases	Costs (Adjusted)	Total Costs	Average Case Cost
1998	188	\$6,460,620	Pre Law (30 months) \$20,779,939	Pre Law (30 months) \$34,518
1999	263	\$9,463,172		
2000 Pre	151	\$4,856,147		
2000 Post	178	\$6,455,558	Post Law (30 months) \$43,744,629	Post Law (30 months) \$39,877
2001	445	\$17,555,237		
2002	474	\$19,733,833		

Adjusted by Consumer Price Index (DOL) for medical care, 1999-2002, expressed in 1998 dollars.
Source: Florida Agency for Health Care Administration, Dept of Labor

Total Gross Medical Costs

Source: Florida Agency for Health Care Administration

- Total gross costs¹ charged to hospital admitted motorcyclists with head, brain or skull injury more than doubled from **\$21 million to \$44 million** in the 30 months before and after the law change (adjusted for inflation)
- Average case cost rose by more than \$5,000 (adjusted) in the same time period

¹Costs are for acute care, excluding rehabilitation costs

Summary

- Universal laws work
 - ◆ Violators are easily detected
 - ◆ 92 to 100% use with law, 50% without law
- Fatalities rise in States with repealed laws relative to pre-repeal period and States with all-rider laws.
- Medical costs rise when comparing pre to post repeal periods

Limitations

- **Universal Helmet Laws: not the sole cause of increase in fatalities**
- **There was an increased trend in Florida motorcycle registration from the late 1990s through 2003**
- **Factors that may have contributed to increased fatalities in addition to law change and increased ridership:**
 - ◆ Alcohol use & speed
 - ◆ A demographic shift in motorcycle ridership
 - ◆ Larger motorcycles

