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1

North American Statistics on Motorcycle Collisions



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Purpose of the Presentation

- To present injury and fatal crash statistics from North America
- To review the necessity for more stringent regulations to improve motorcyclist safety
- Speculating on the consequences of braking systems to keep control of the motorcycle in an emergency situation

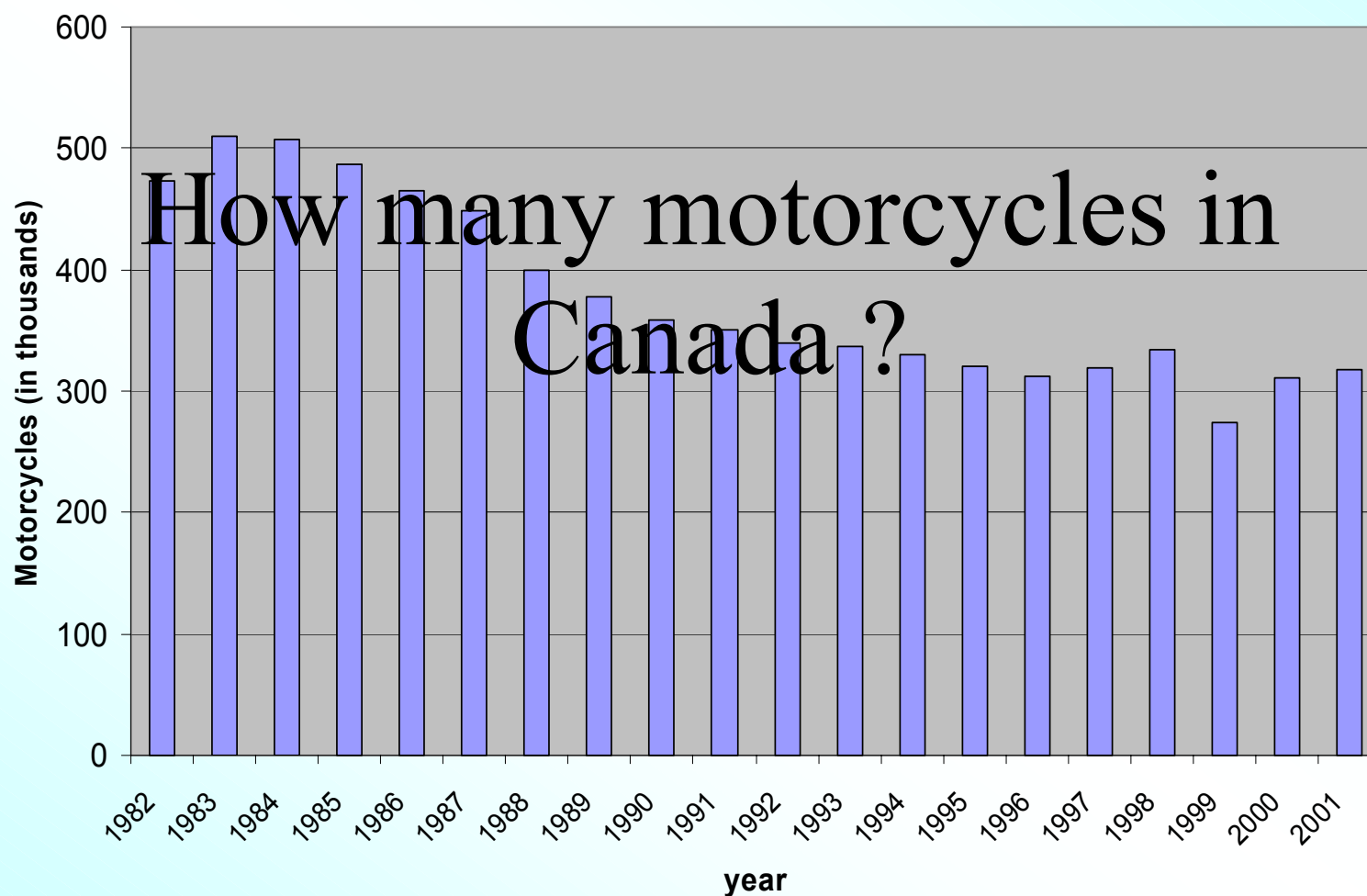


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3

Registered Motorcycles (1982-2001)



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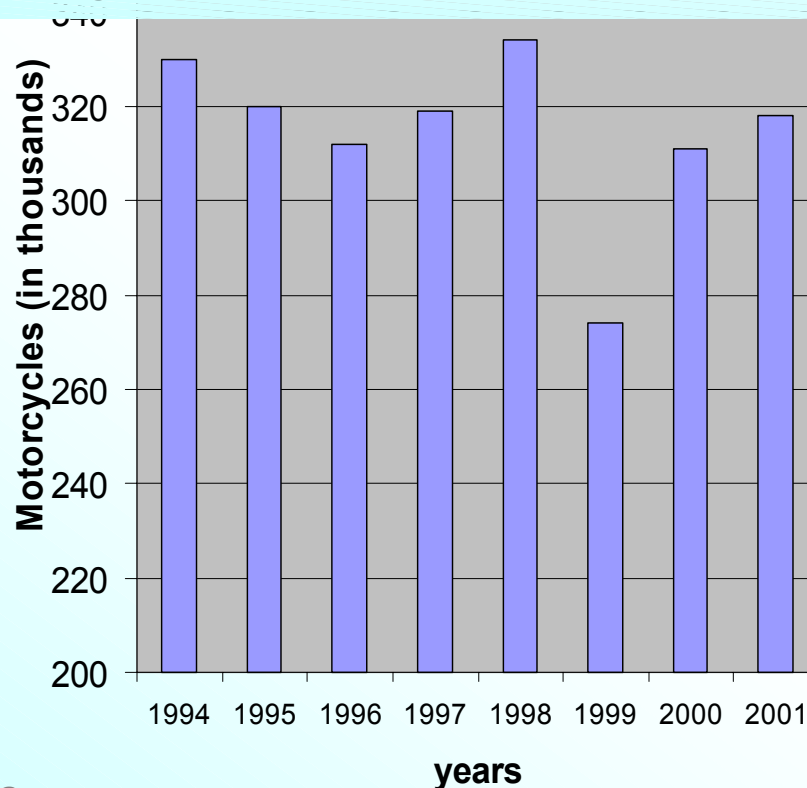
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Number of Registered Motorcycles Period of 1994-2001

Decrease of 3.6% from 1994-2000

Decrease of 18% between 1998-1999



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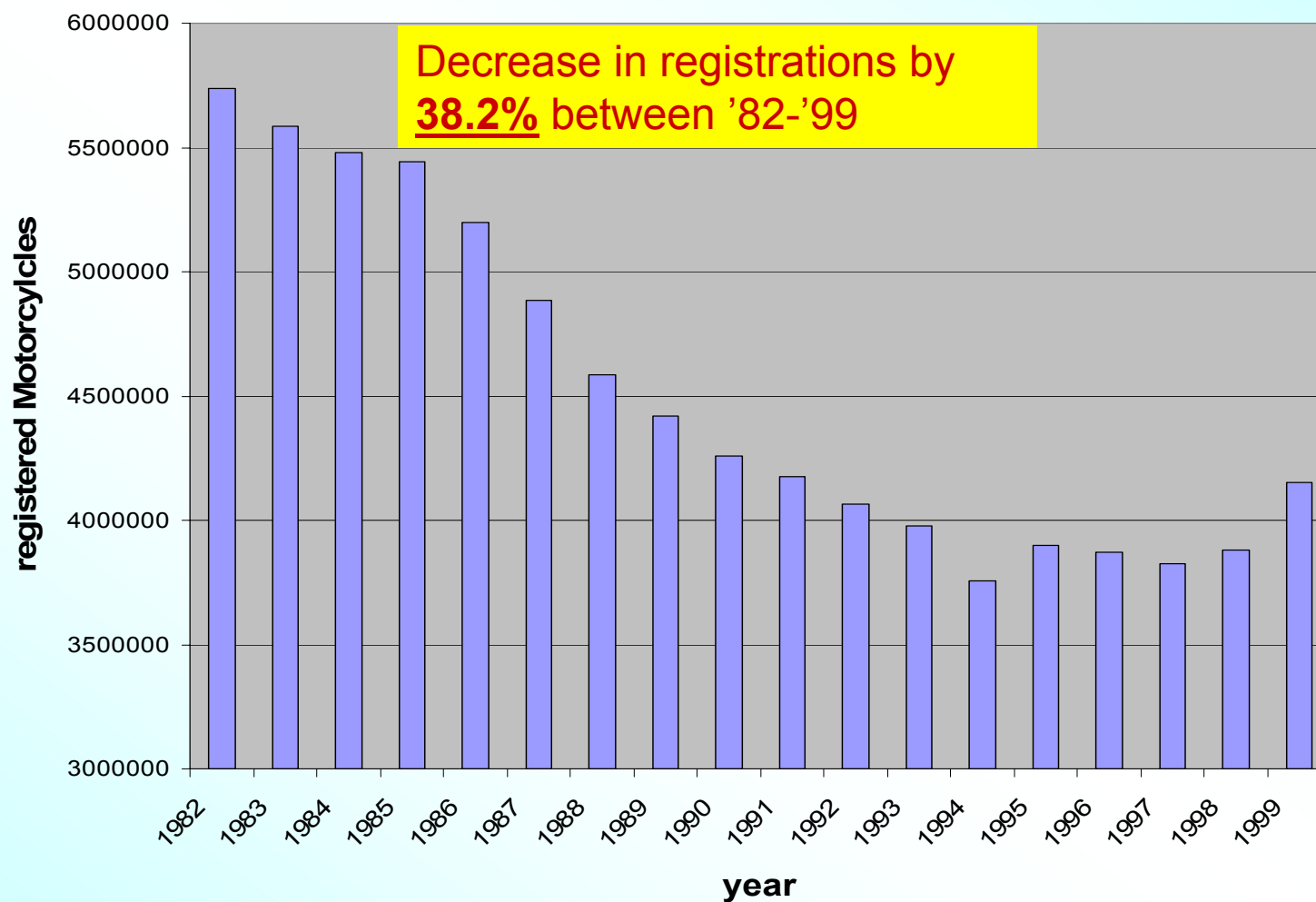


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5

U.S Motorcycle Registrations

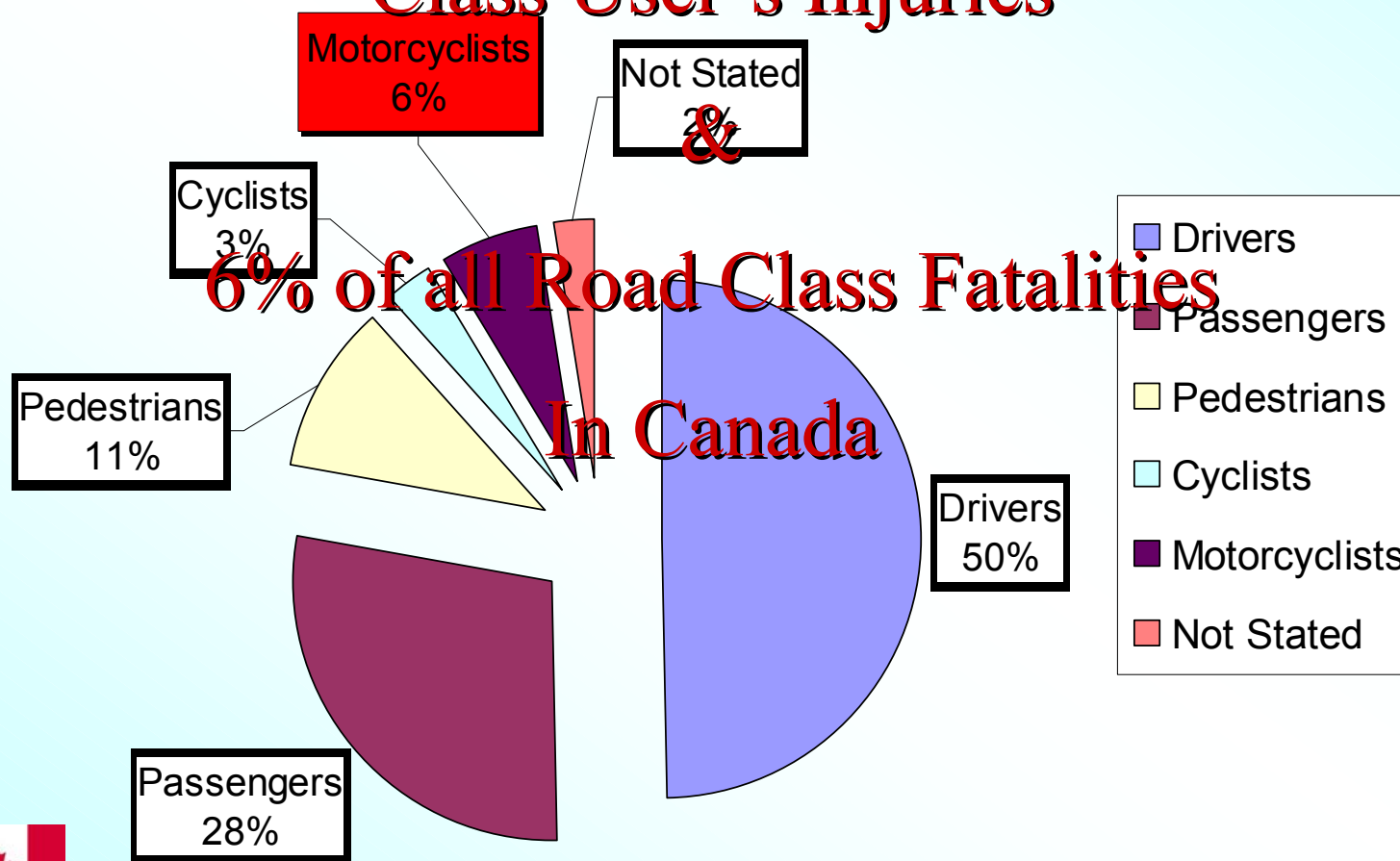


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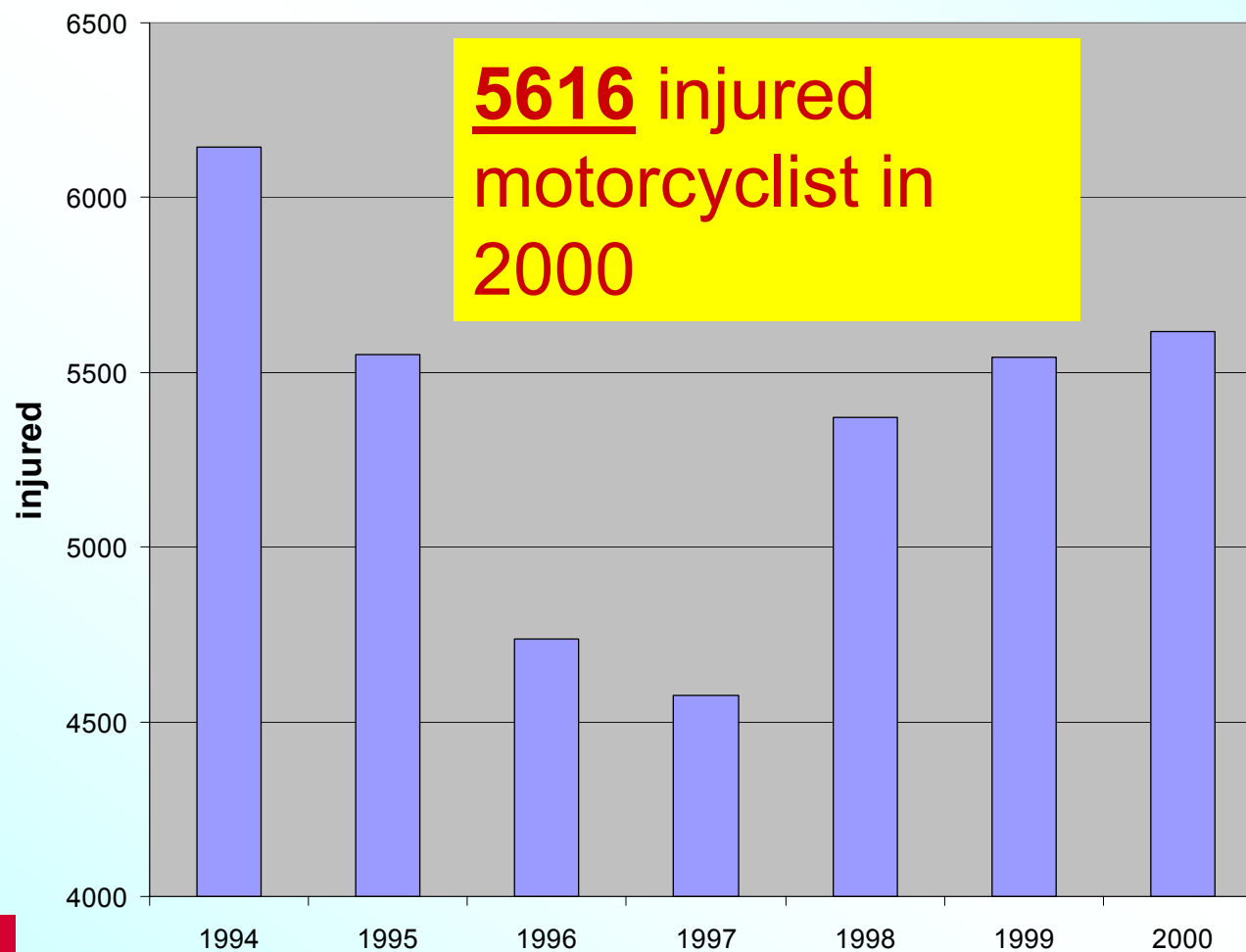
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Road User Class: Serious Injuries

Motorcyclists are 6% of all Road Class User's Injuries



Injuries In Canada



Injuries In Canada

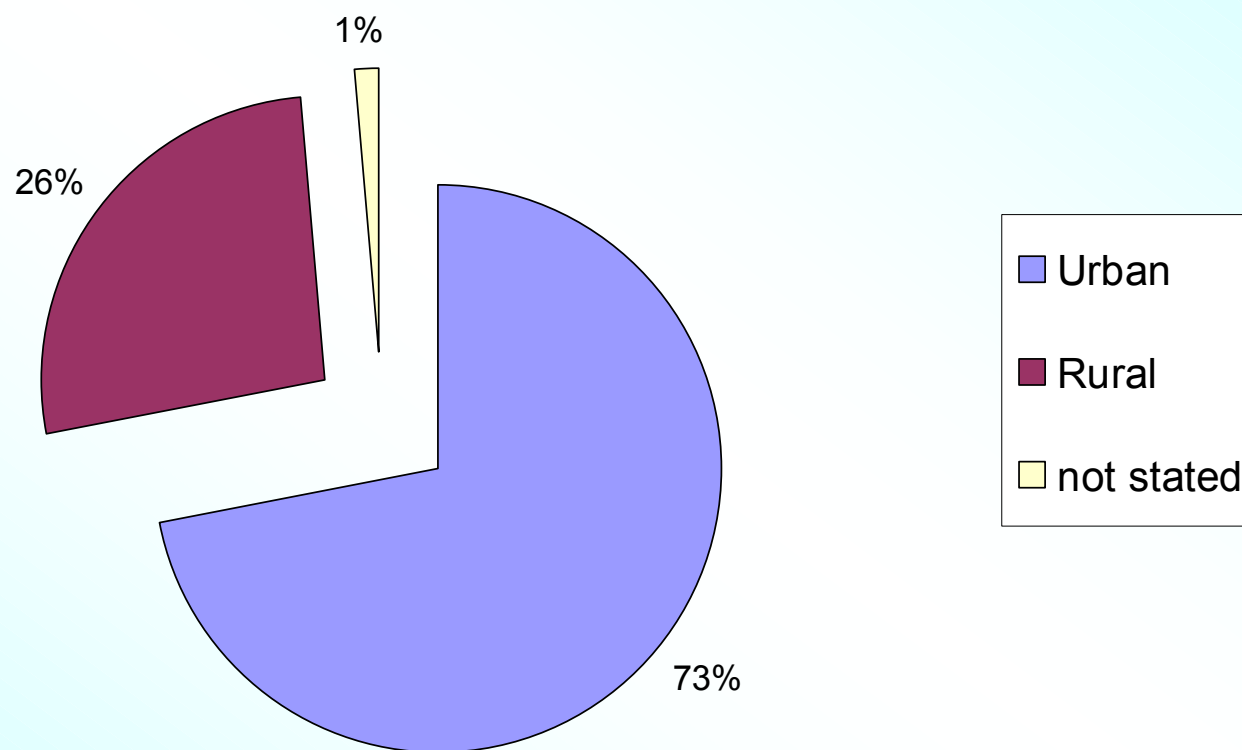
Injuries decreased by 34% between 1994-1997 to the lowest level of **4577** in 1997

Injuries then increased by 22% between 1997-2000 to **5616** in 2000.

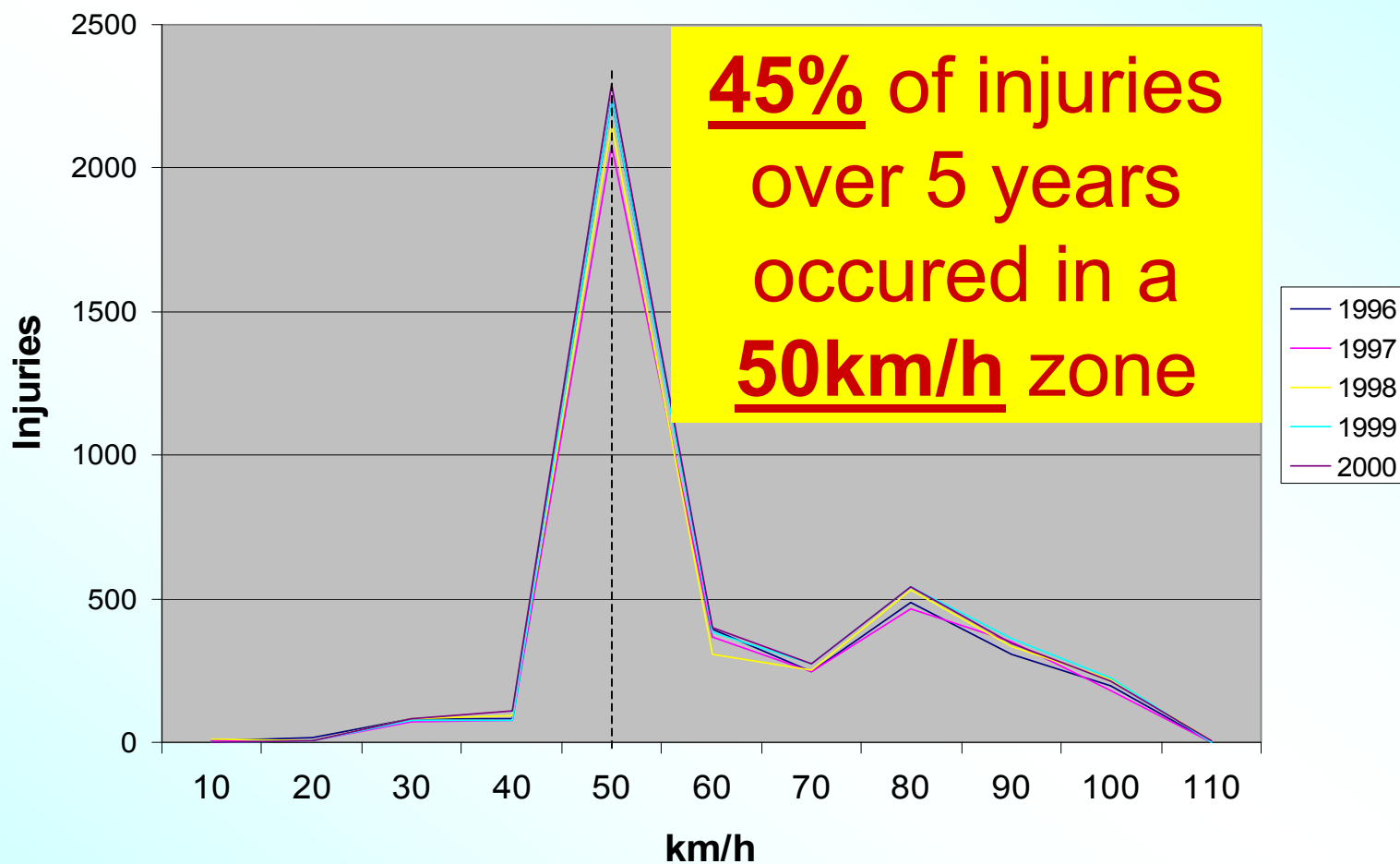




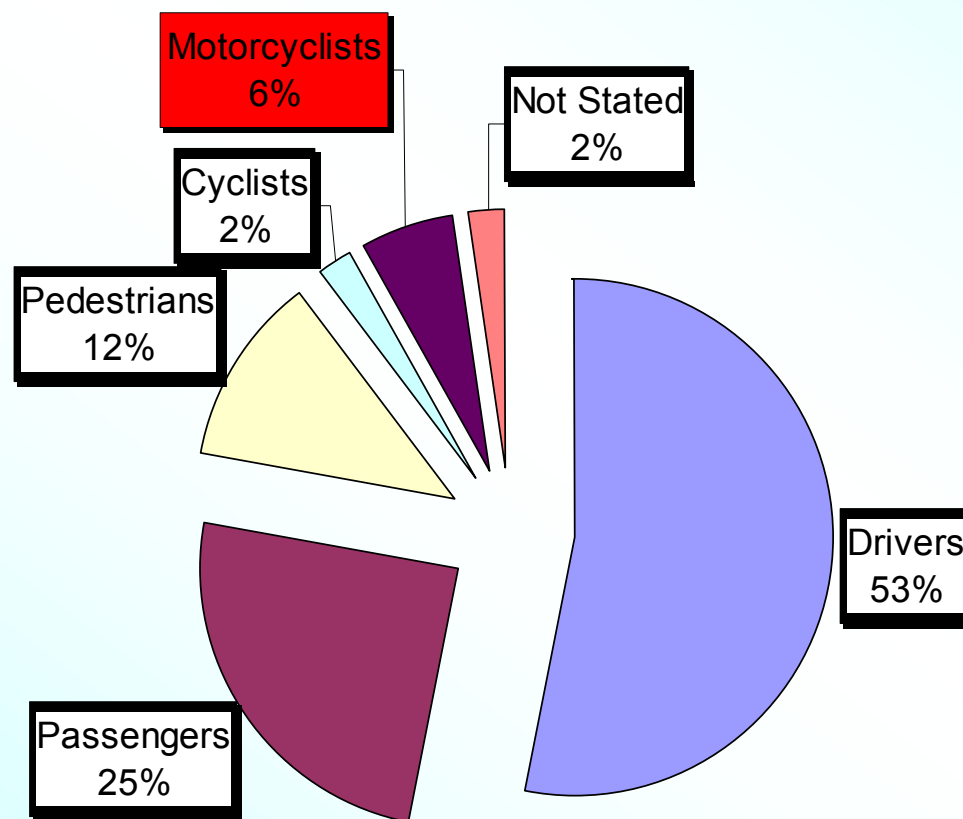
Distribution of Injuries by Location



Injuries by Imposed Speed Limits



Road User Class Fatalities



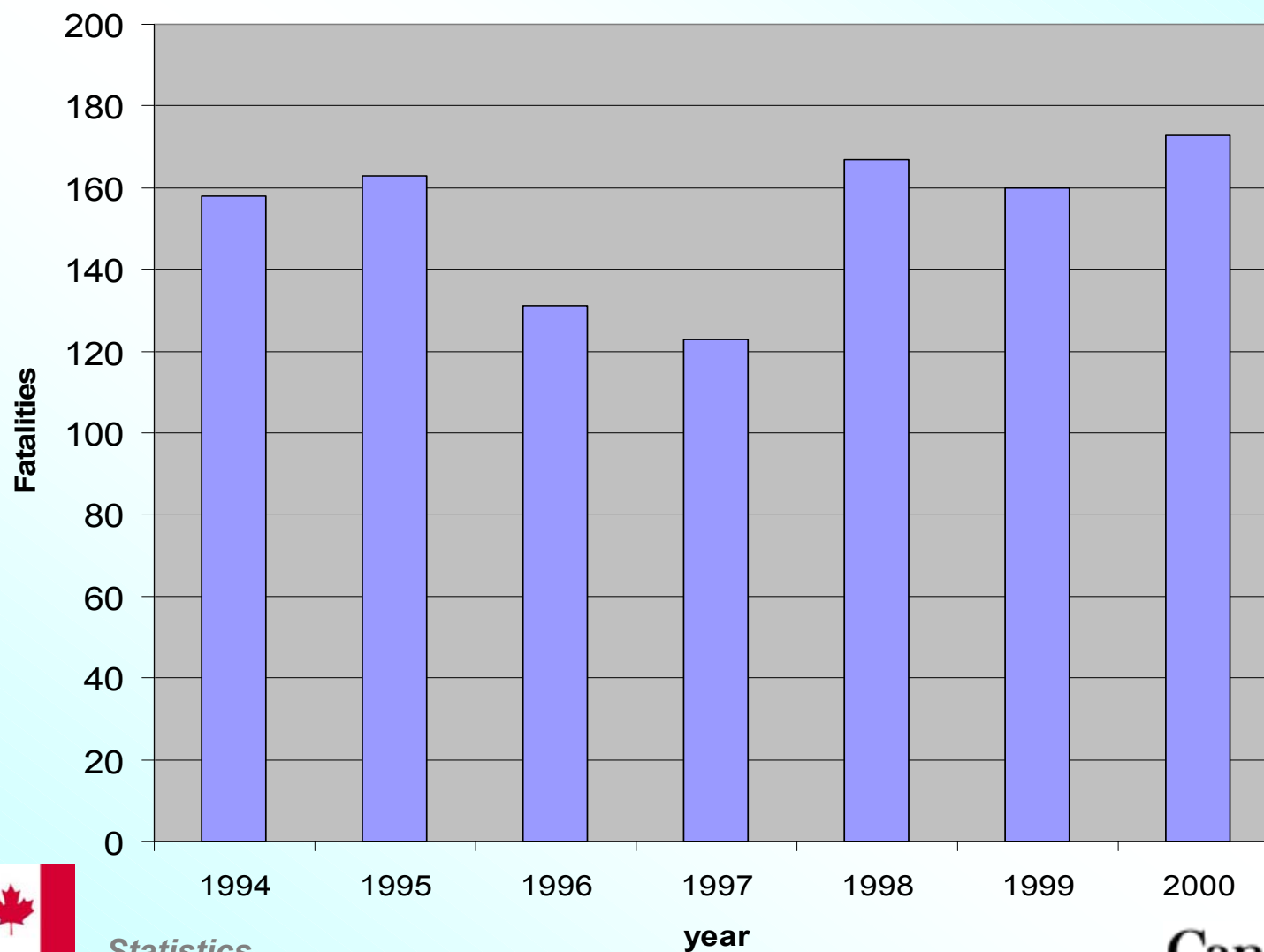


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12

Motorcycles Fatalities In Canada



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Motorcycles Fatalities In Canada

Fatalities decreased by 28% between 1994-1997 to the lowest level in 7 years:

123 fatalities - 1997

Between 1997-2000 fatalities increased by 41% to the highest level in 7 years:

173 fatalities - 2000



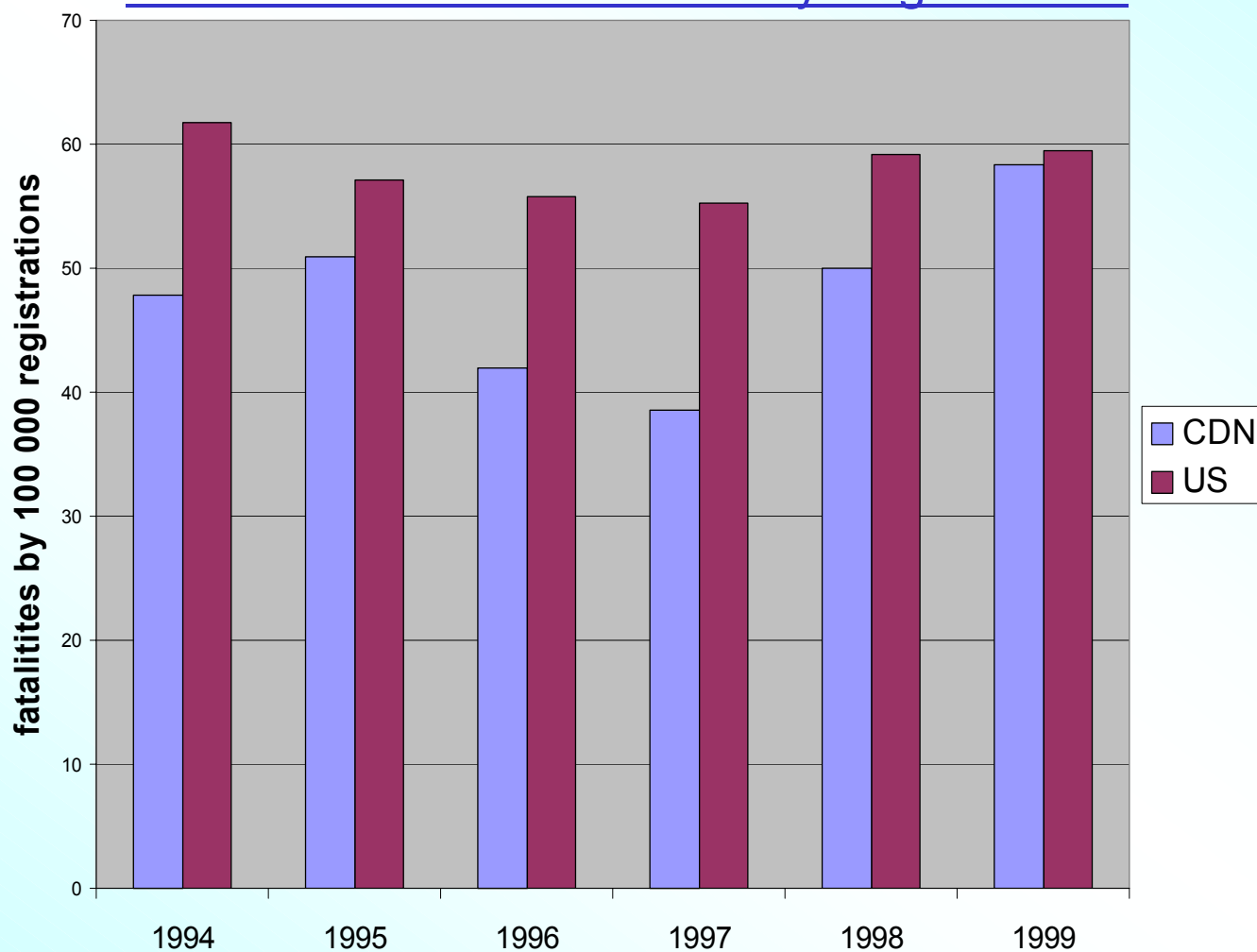


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14

Motorcycles U.S and Canadian Fatalities by Registrations



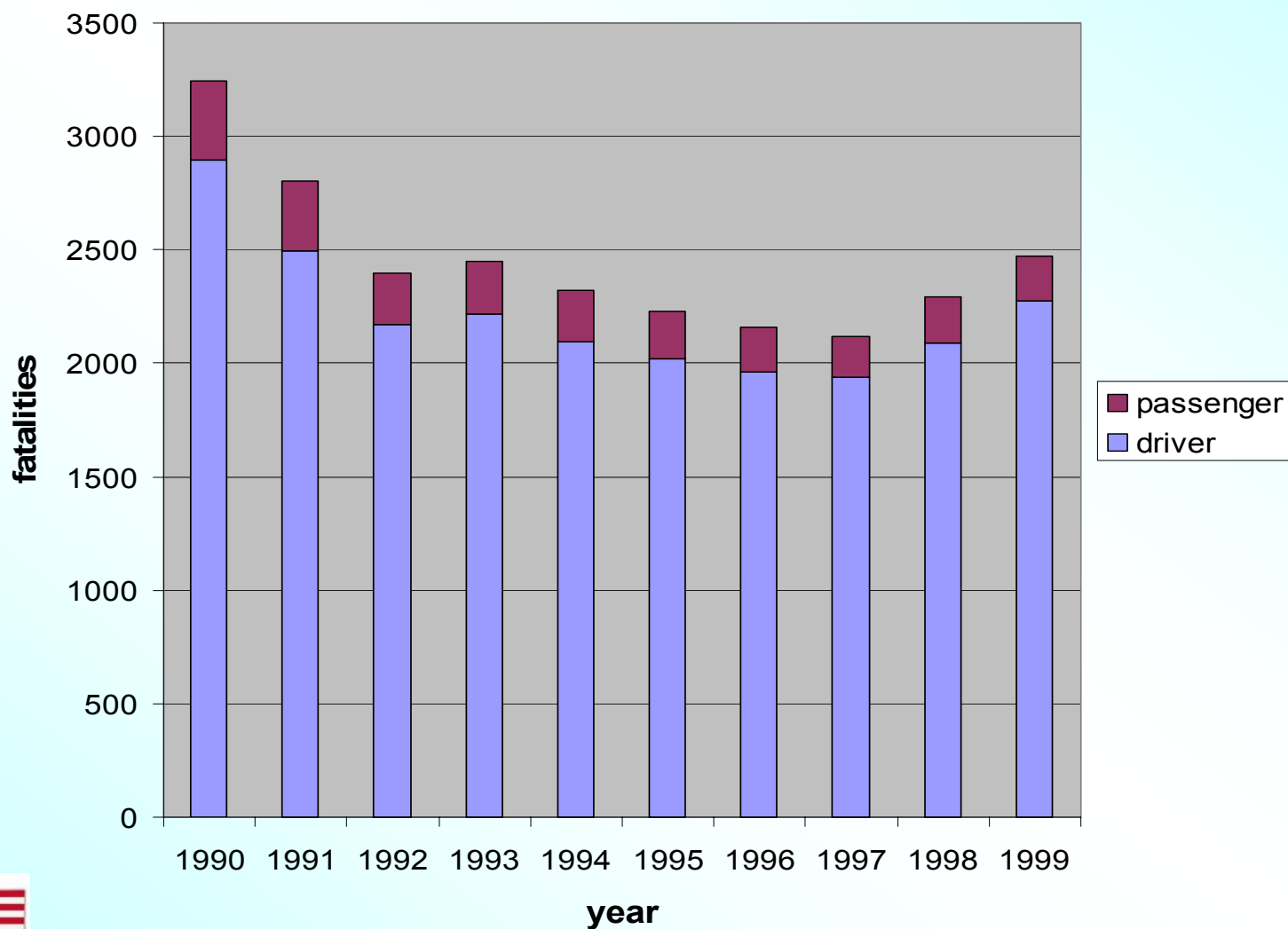


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15

Motorcycles: Fatalities per Year in USA



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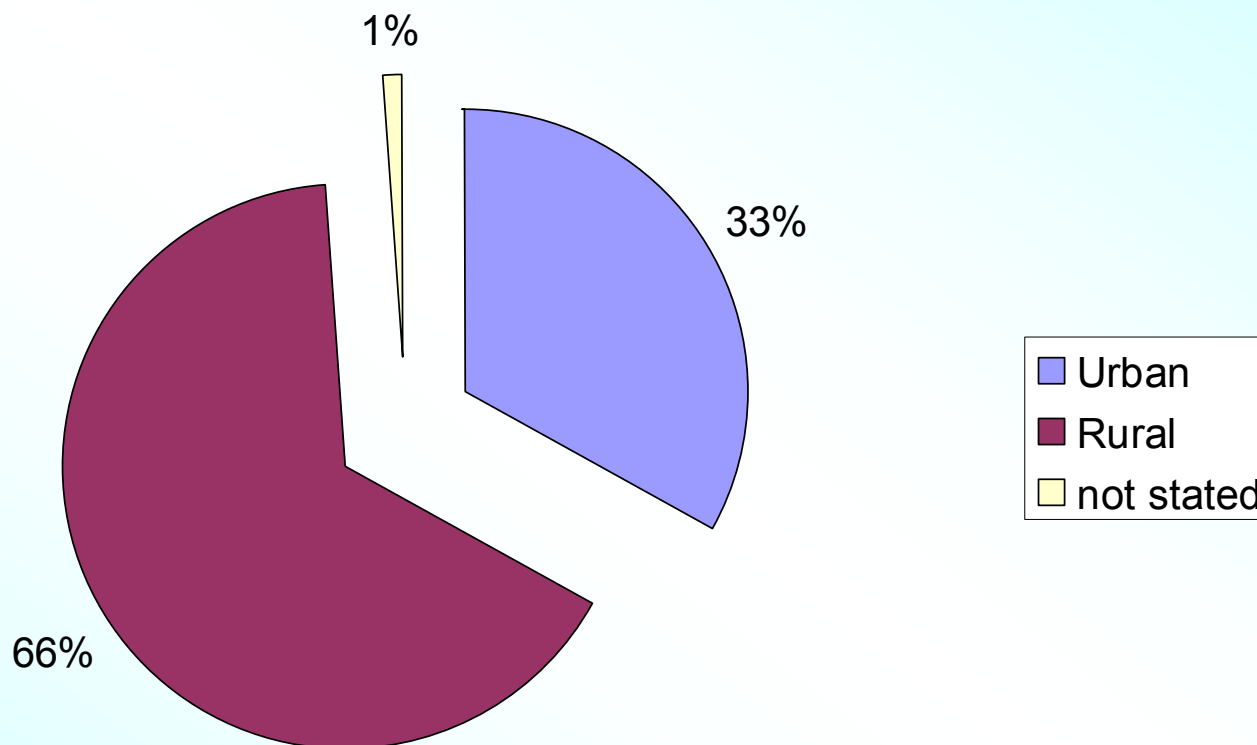


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16

Distribution of Fatal Collisions by Location



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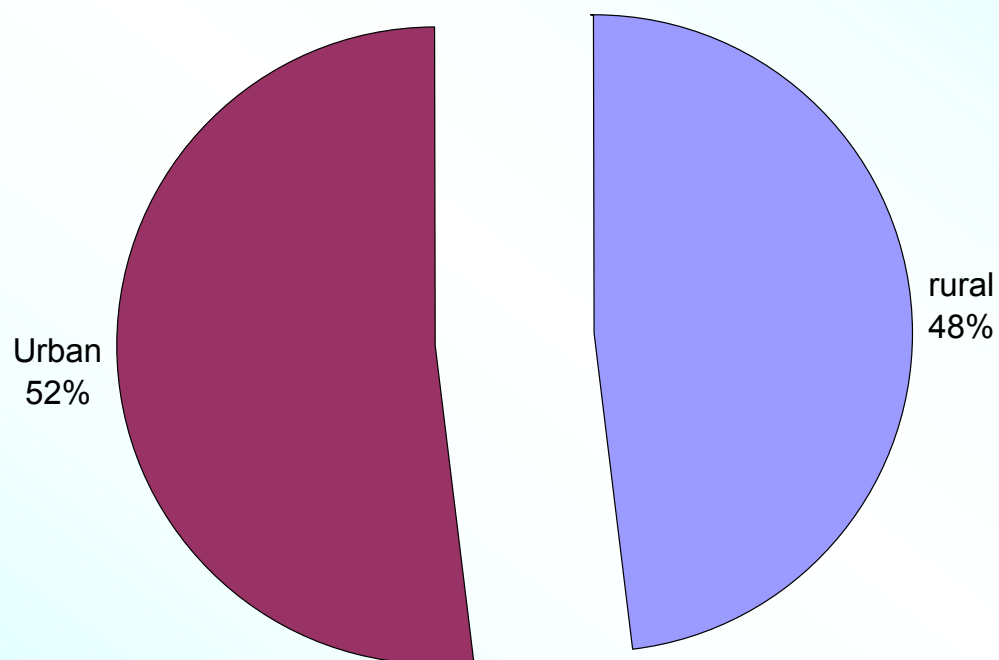


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17

Motorcyclist Fatalities by Location (1990-1999) United States



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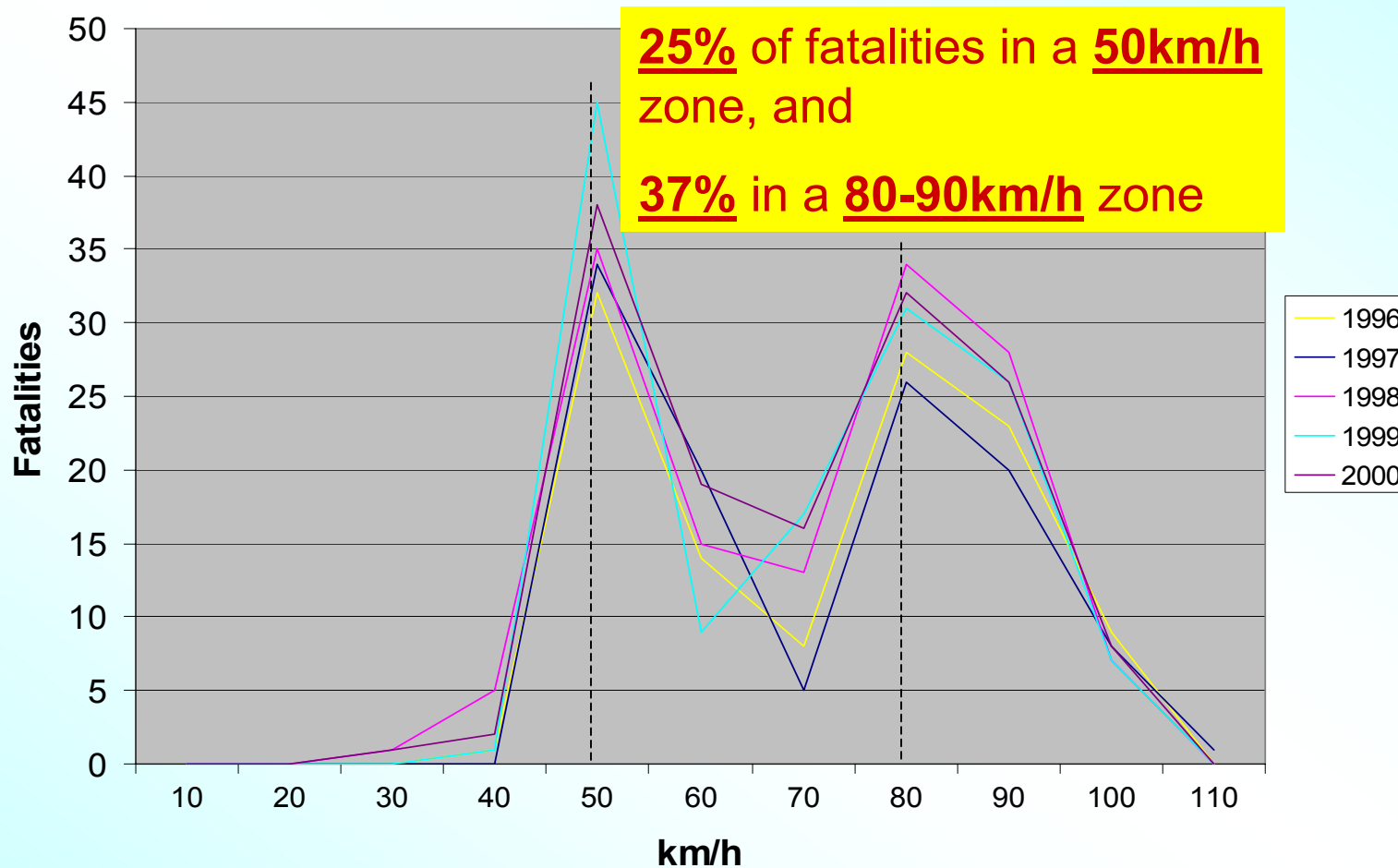


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18

Fatalities by Imposed Speed Limits



Statistics

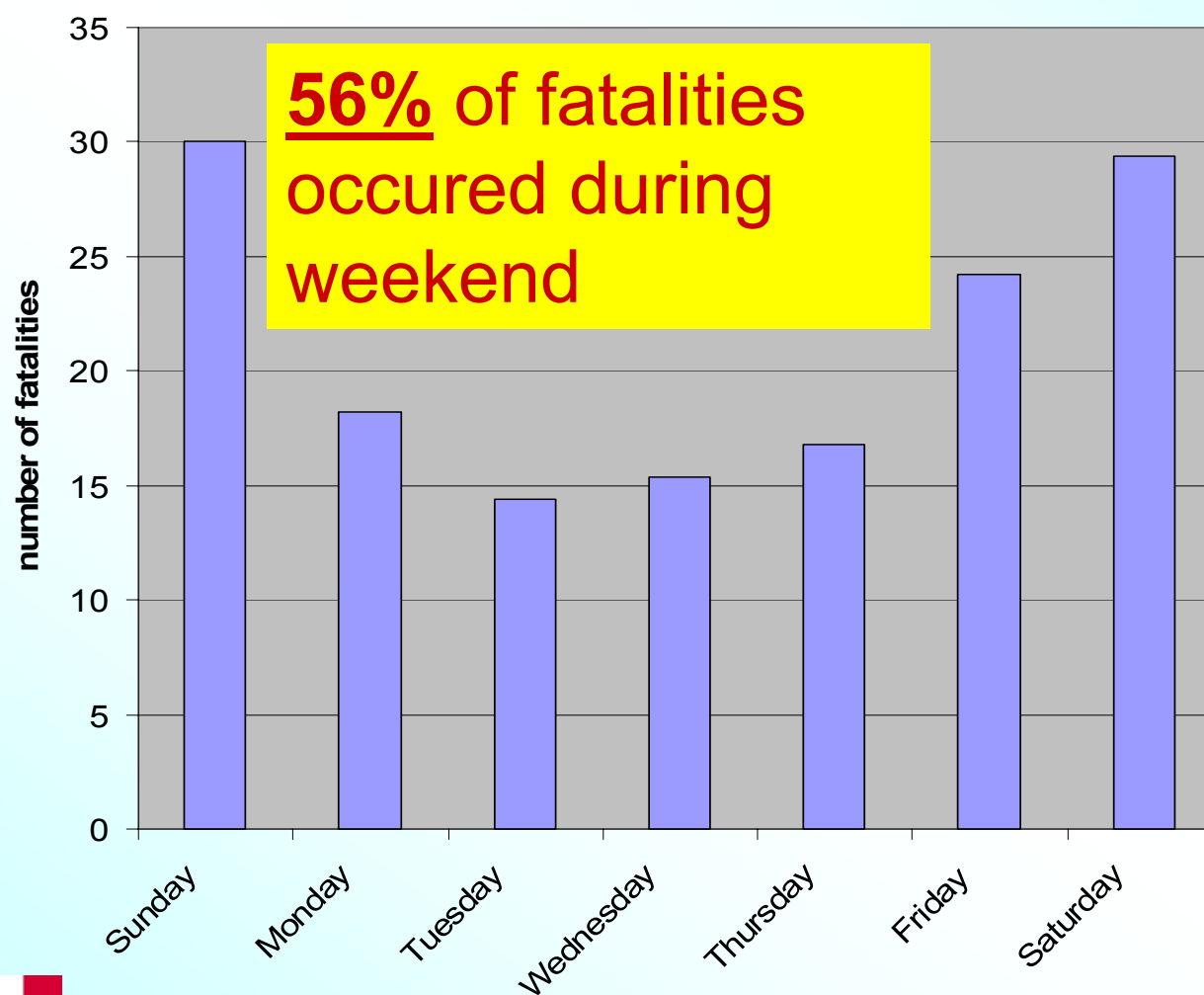
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Fatalities by Day of the Week

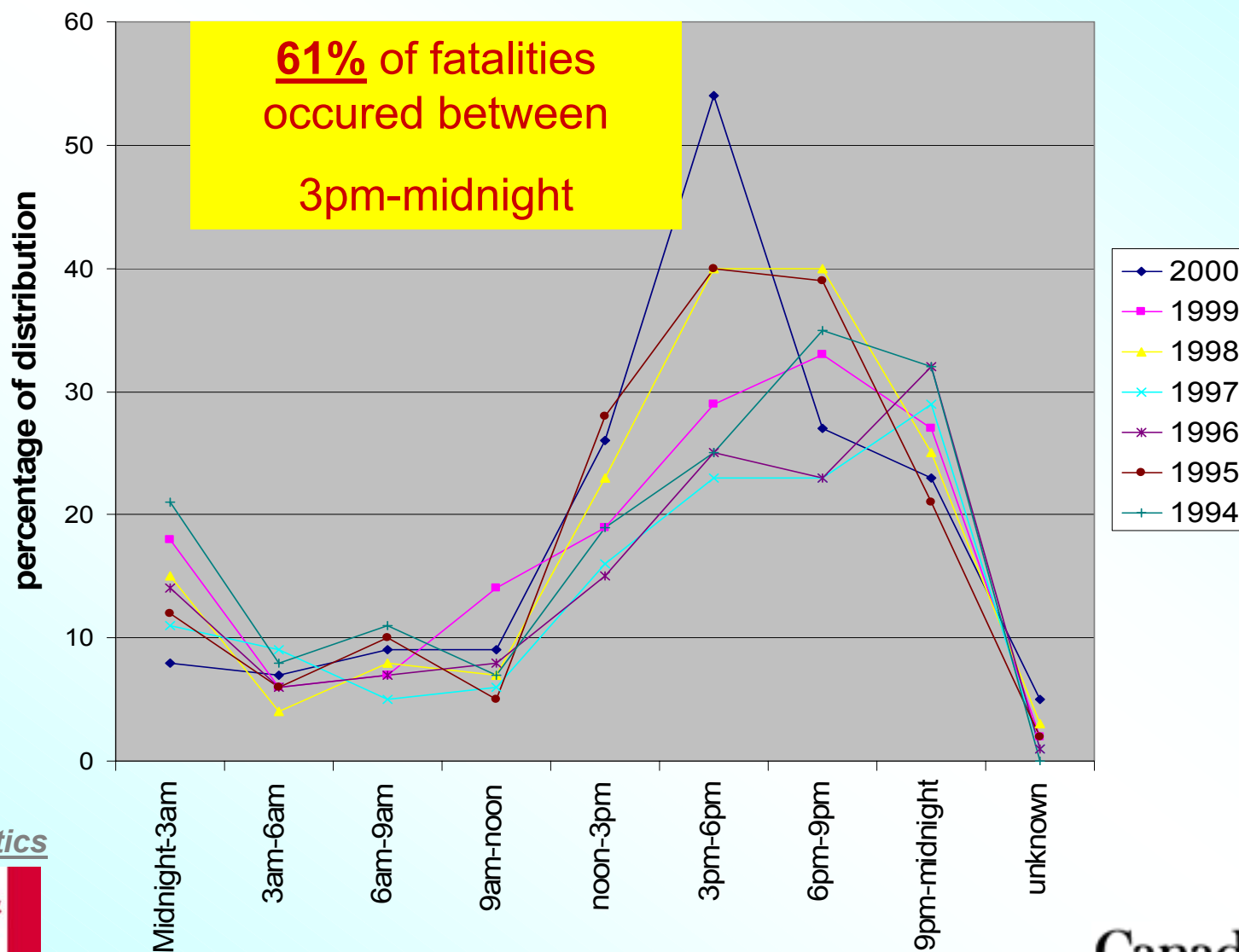


Statistics

■ average (1994-2000)

Canada

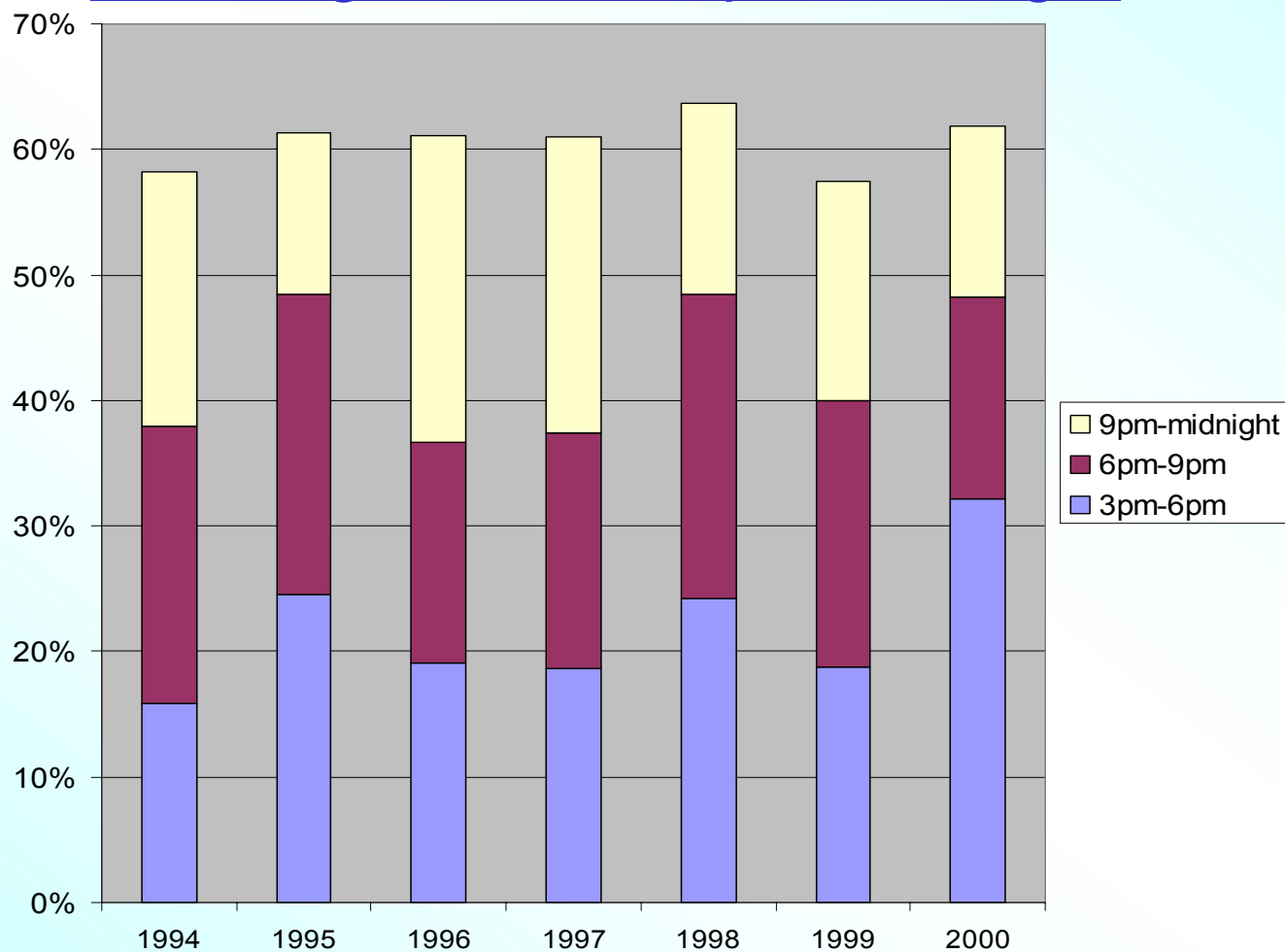
Fatalities by Time of Day



Statistics



On Average, 61% of fatalities are occurring between 3pm-midnight



U.S Statistics on Motocyclist Fatalities

Covering the U.S Population

- The U.S. has an average of **12 times** more registered motorcycles than Canada.
- The U.S. has an average of **15 times** more motorcyclist fatalities than Canada.
- from '98-'99, an increase of 30% was observed in registrations in the U.S. whereas a decrease of 22% in Canadian registrations for the same period.

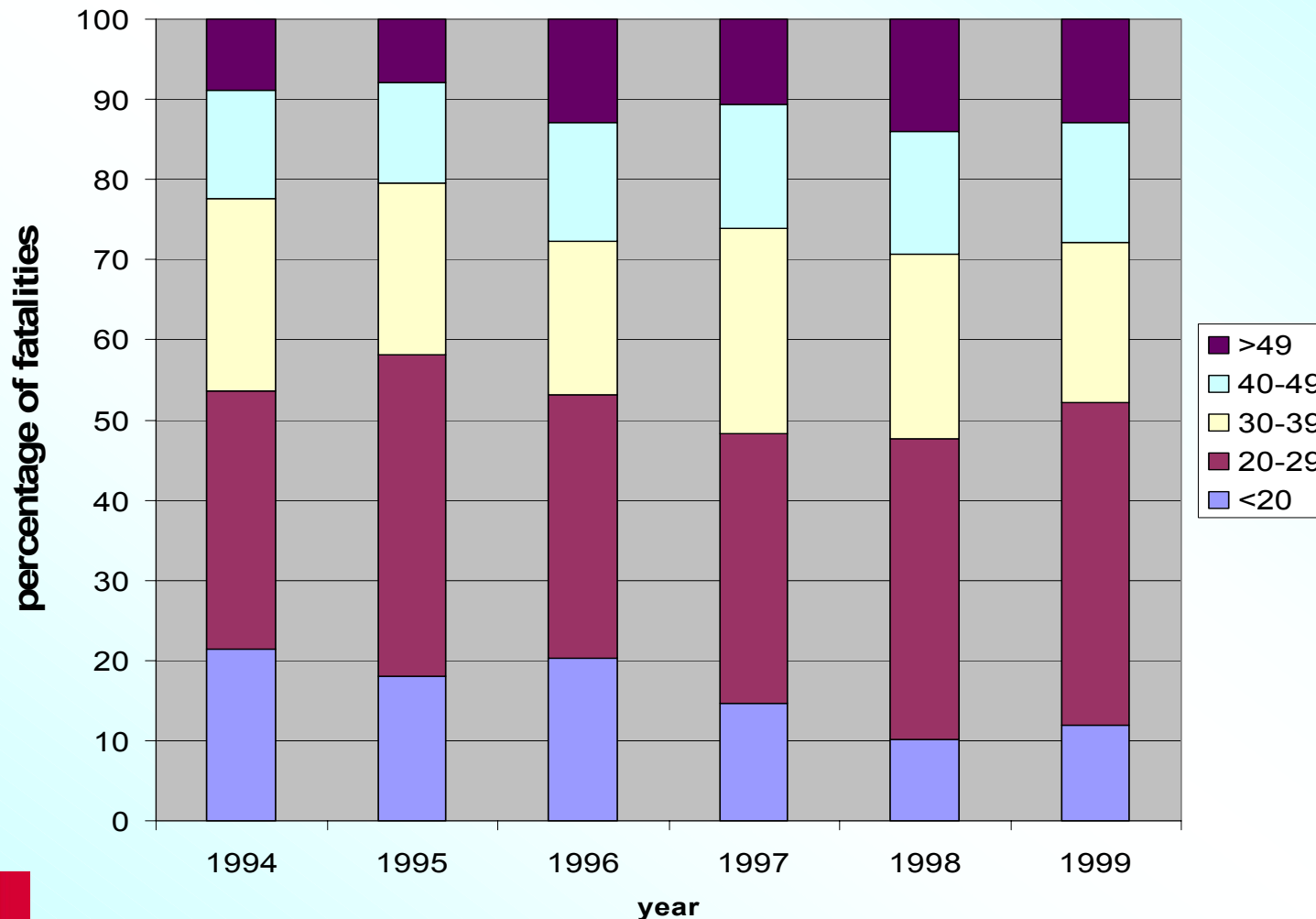




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Canadian Age Group Distribution



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Canadian Group Age Observations

The age group above 40 years old increased by 8.2% between '94-'00

The age group below 20 years old decreased by 9.3%, 20-29 increased by 8% for the same period

The 30-39 years old age group remained consistent over the period, counting for 39% of the motocyclist fatalities



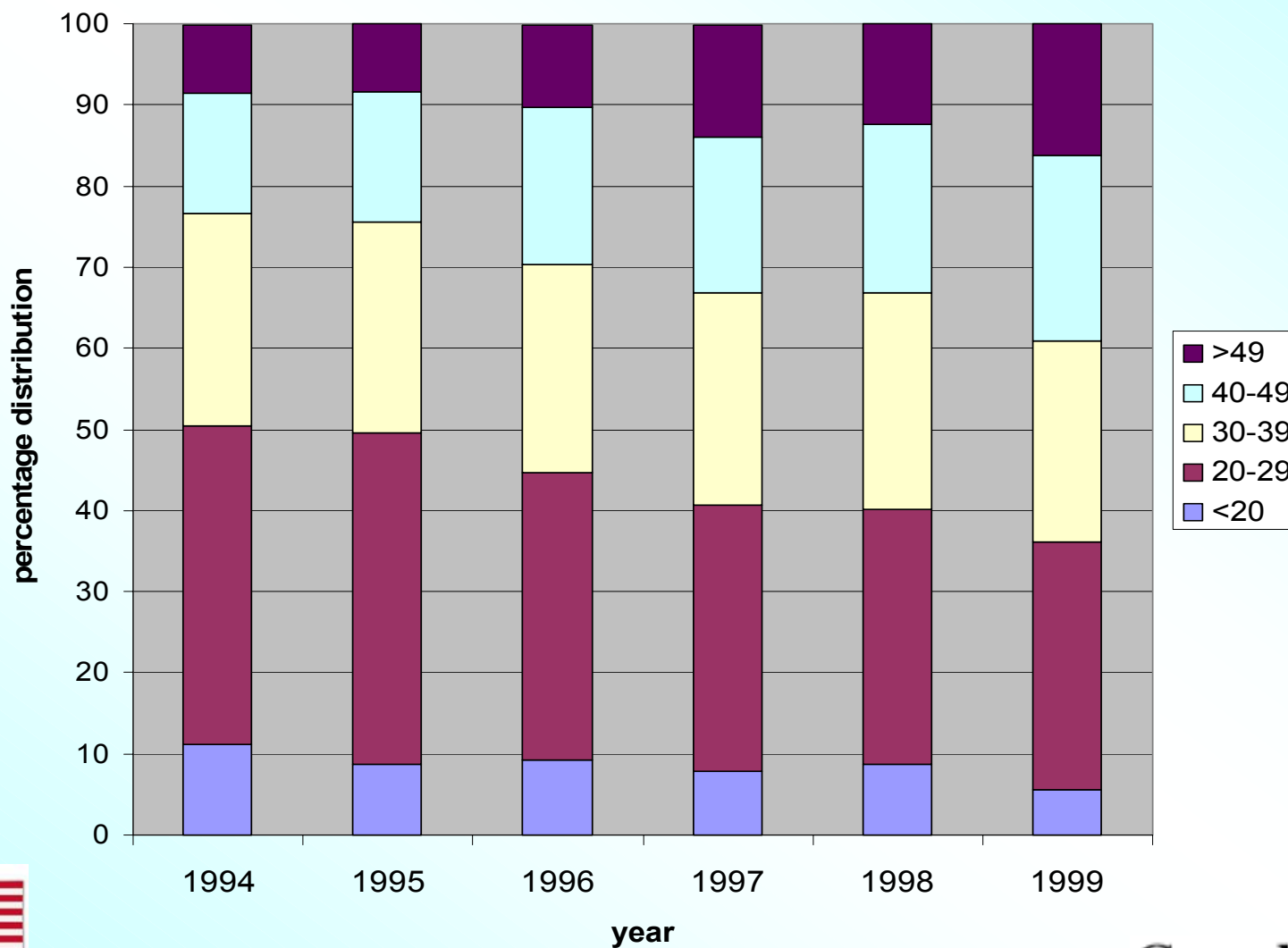


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25

Age Group for U.S. Fatalities



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Age Group Observation

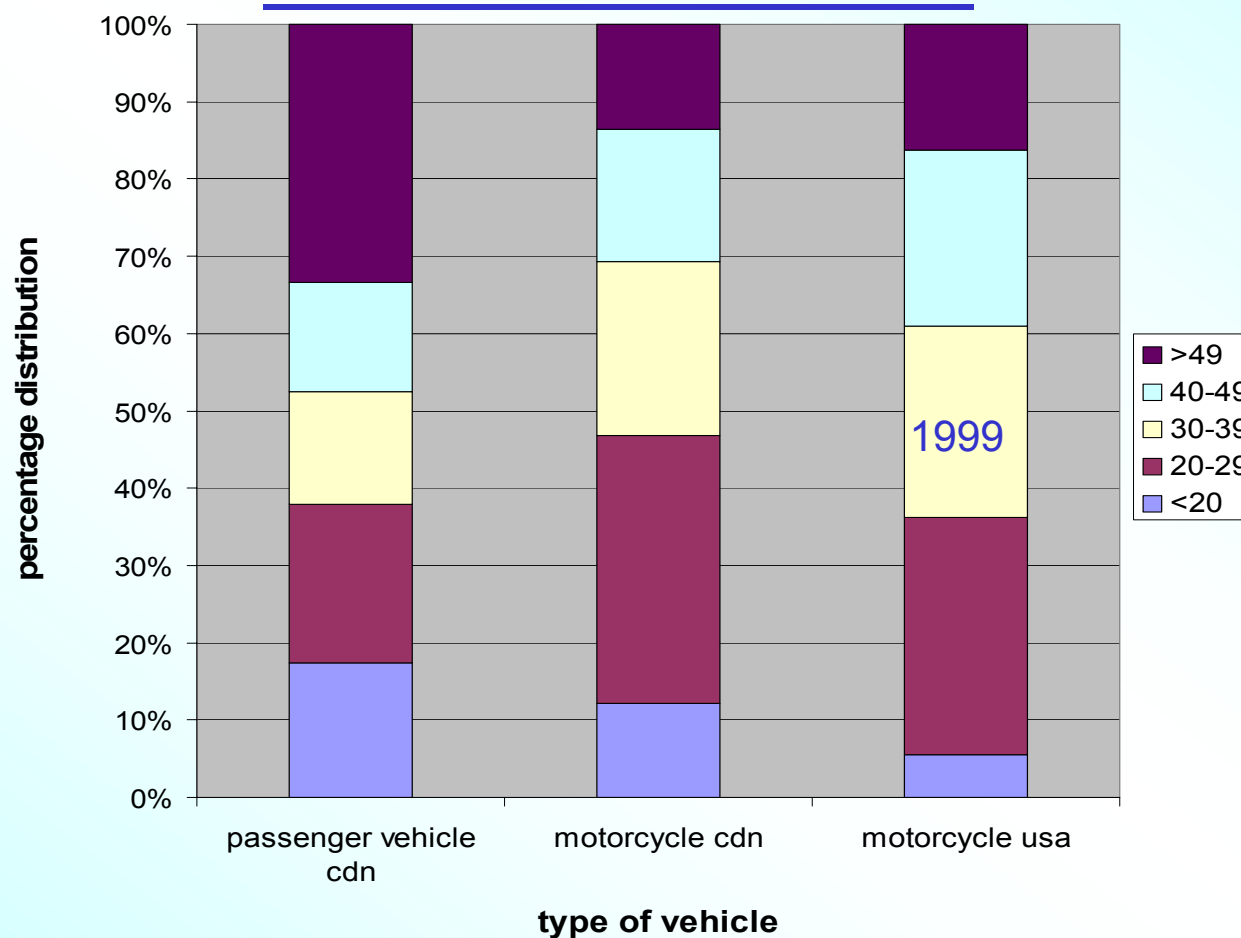
The age group 40 and above grew by **24.7%** between '94-'99, now **39.1%** of all motorcycles fatalities.

The less than 20 years old decreased by 10% and the 20-29 years old decreased by 14.2%.

The 30-39 years old age group remained constant, weighting an average 26% of motorcyclist fatalities.



Type of Vehicle and Group Age Distribution Fatalities - Year 2001

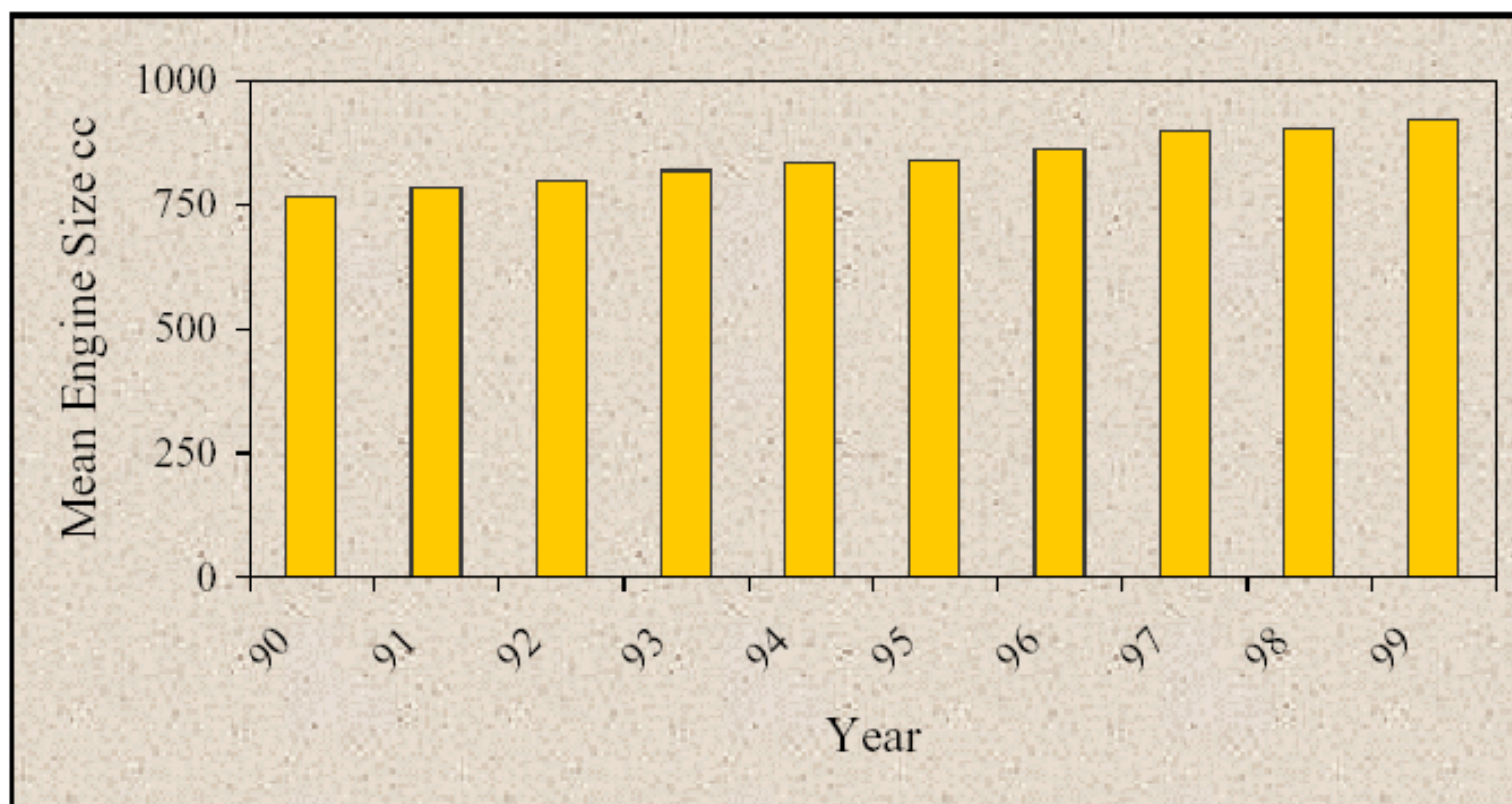




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The Over 40 Age Group Are More Likely Getting Killed on Motorcycles With Engine Displacement 1001-1500 cc.



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The Mean Age of Motorcyclist Fatalities is Increasing With the Highest Proportion of People Over 40 Involved in Fatal Crashes.

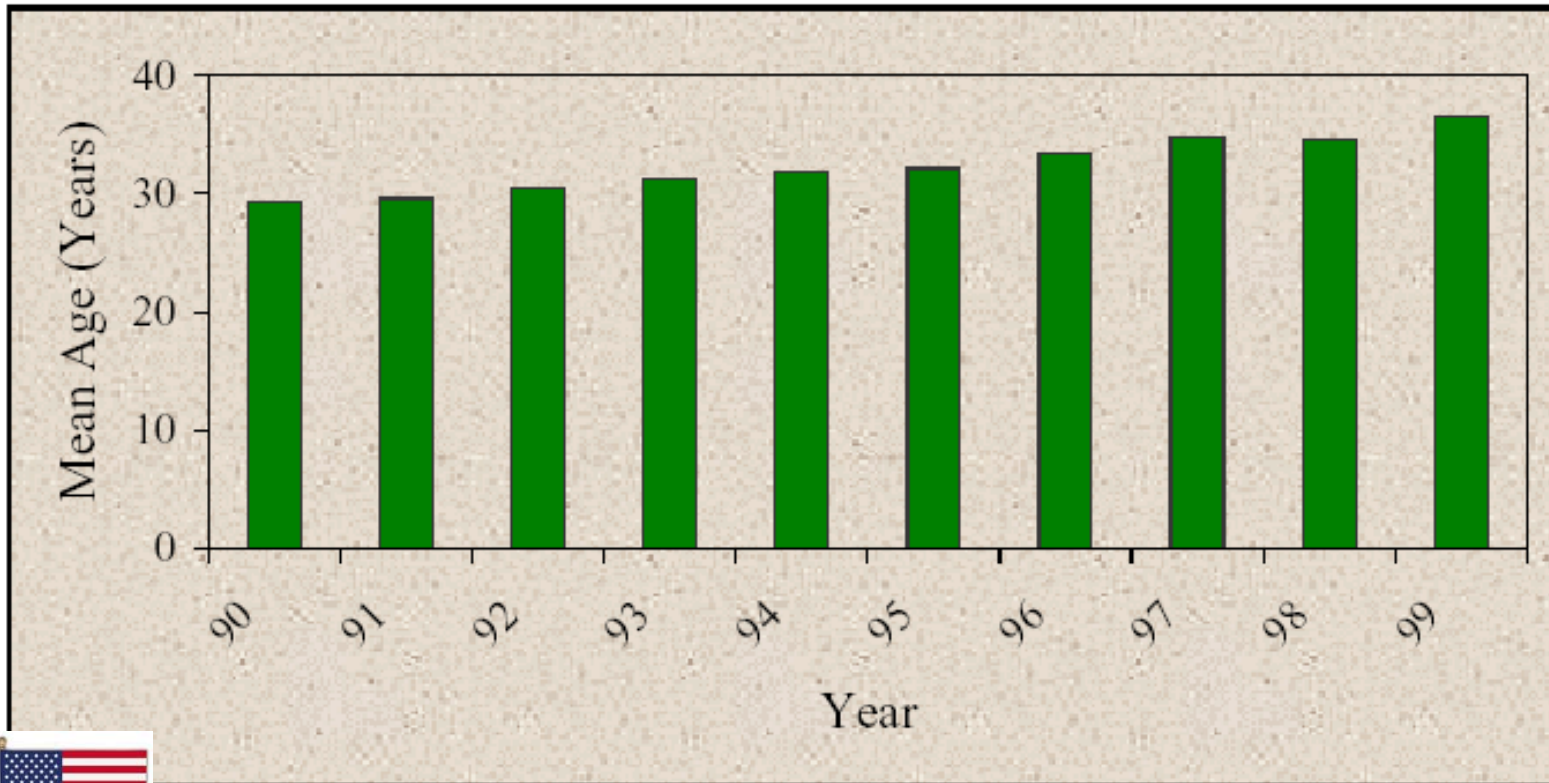
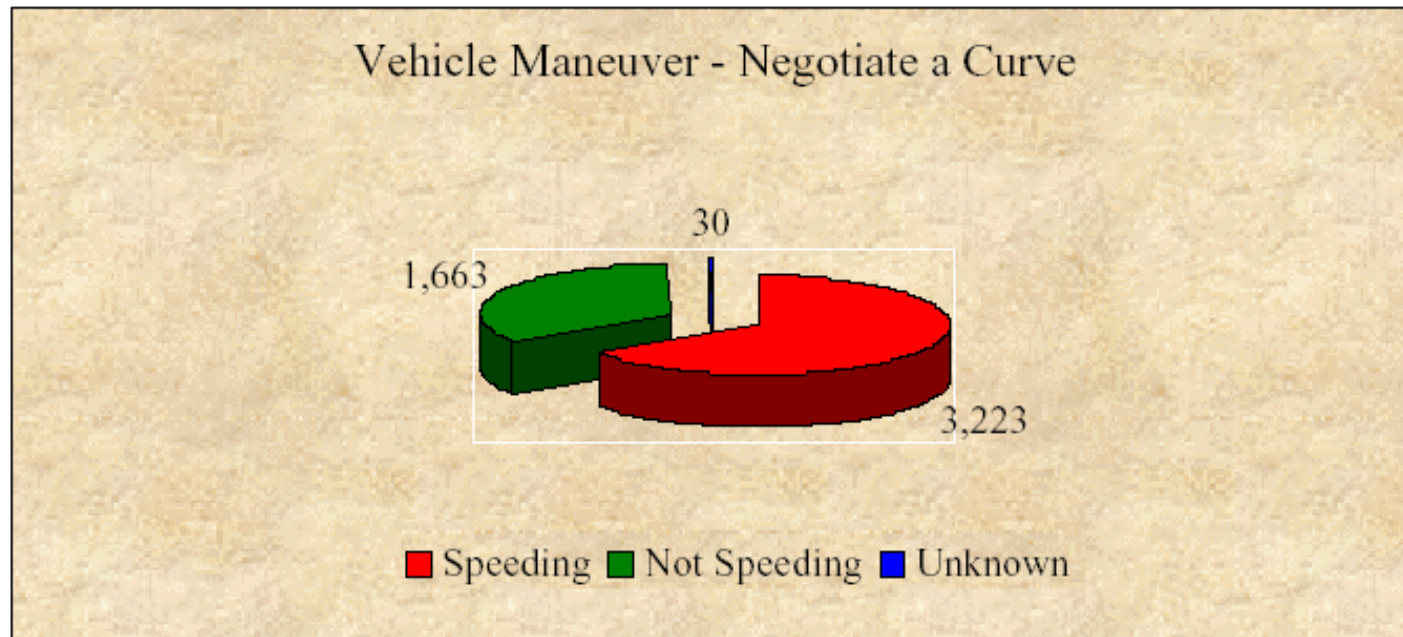




Chart 15: Motorcycle Operator Fatalities When Vehicle Maneuver was Negotiate a Curve by Speeding Factor (1990-1999)



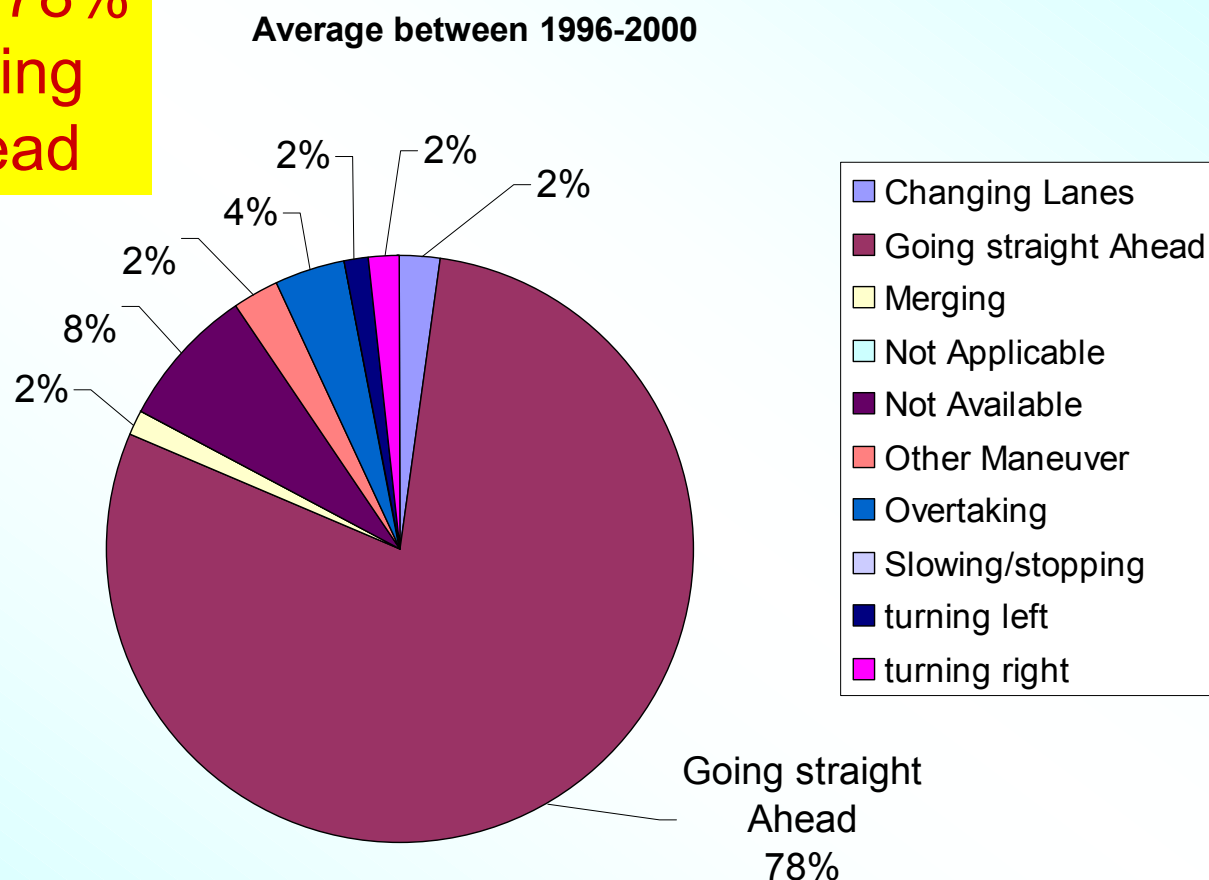
Source: National Center for Statistics and Analysis, NHTSA, FARS 1990-1999





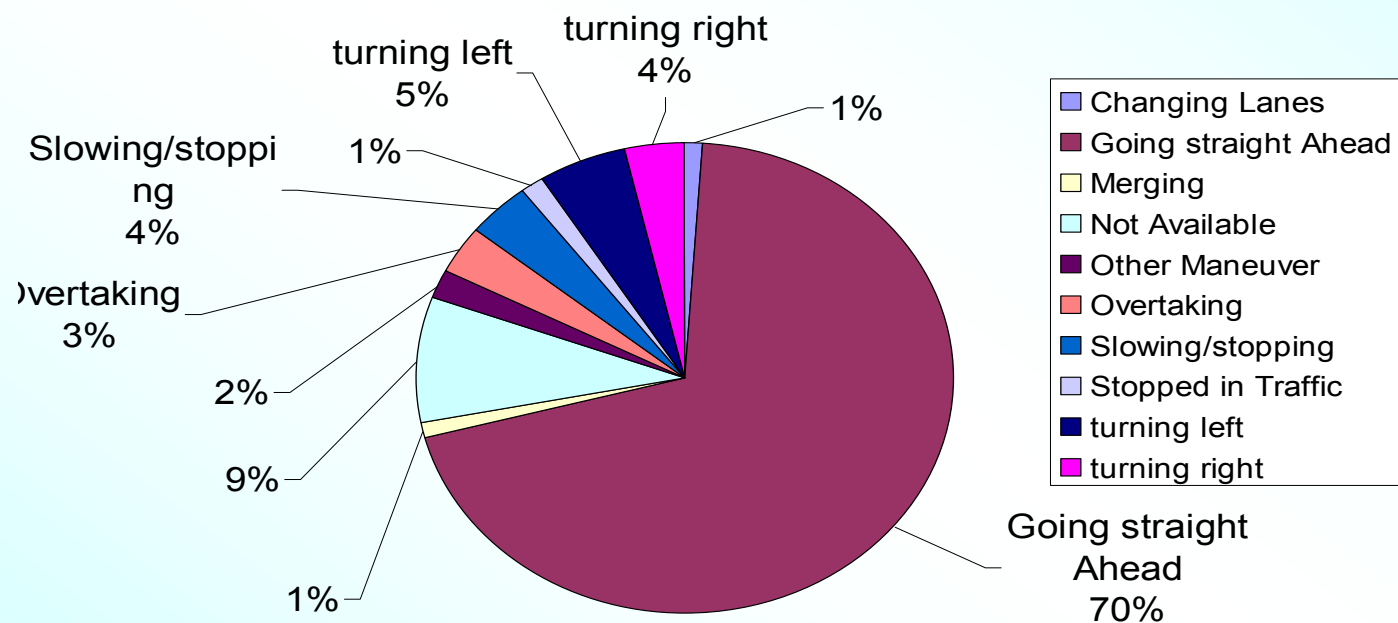
Canadian Fatalities Regarding the Preceding Maneuver Before Crash

**Average of 78%
fatalities going
straight ahead**

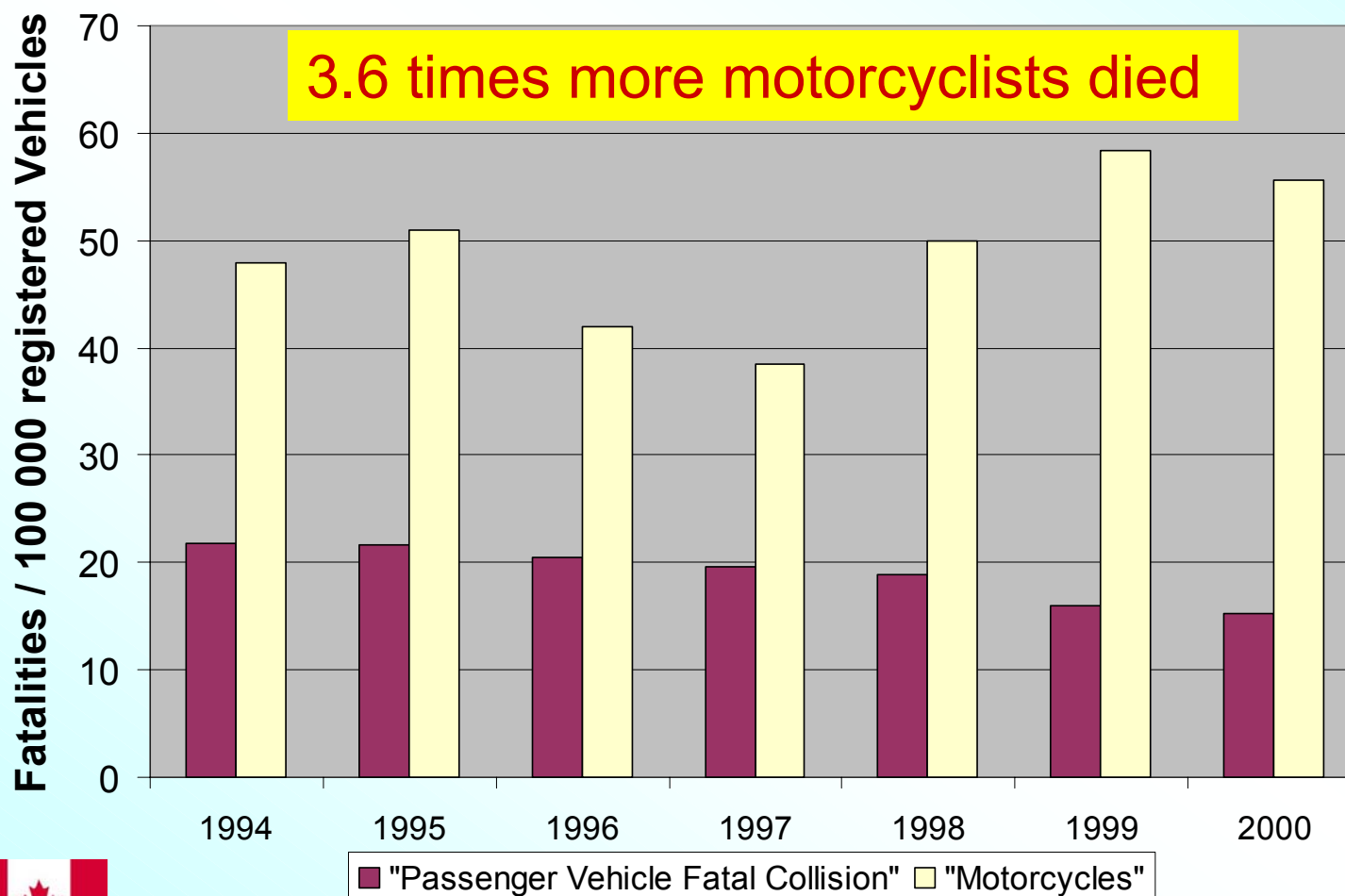


Canadian Injuries Regarding Preceding Maneuver

Average of **3644** injuries by year while going straight, and **197** while slowing



Comparison Between Passenger Vehicles and Motorcycles



Important Facts
For 1994-2000 Period

Motorcycles fatalities per 100 000 registered vehicles

Canada – *16.2% increase*

United States – *3.75% increase*

For the age group of 40 and over,

Canada – *8.2% increase*

United States – *24.7% increase*

Sources

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*-Canadian Motor
Vehicle Traffic Collision
Statistics: 2001*

-Statistics Canada



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U.S.A

*-Fatal Single Vehicle
Motorcycles Crashes
published by NCSA*

*-Geo-Demographic Analysis
of Fatal Motorcycle Crashes,
NHTSA*

*-Recent Trends in Fatal
Motorcycle Crashes, NCSA*



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