

Increasing Seat Belt Usage
Among Low-Use Groups

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Characteristics of Persons
Who Don't Use Seat Belts

Data Sources:
Two National Surveys Conducted by NHTSA

- **NOPUS**
 - National Occupant Protection Use Survey
 - A national seat belt observational survey)
- **MVOSS**
 - Motor Vehicle Occupant Safety Survey
 - A national telephone survey

Summary of Groups that are Least Likely to Use Seat Belts: Based on Both Surveys

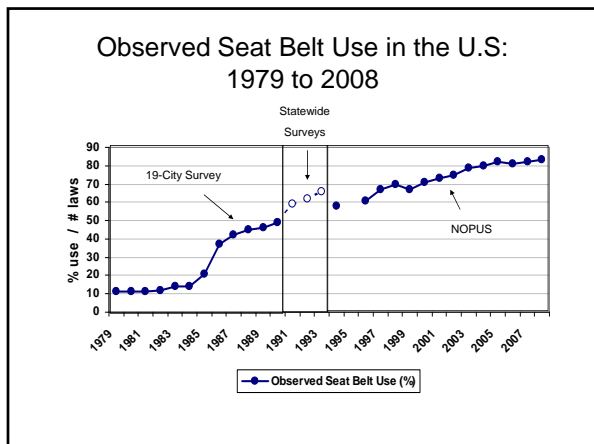
- Male
- Youth: Ages 16 – 24
- Occupants of Pickup Trucks
- Rural Occupants
- Rear Seat Passengers
- Residents of Secondary Law States
- Less than College Education
- Household Income < \$50,000
- Drivers Who Consume Large Amounts of Alcohol
- Those Who Drive at High Speeds

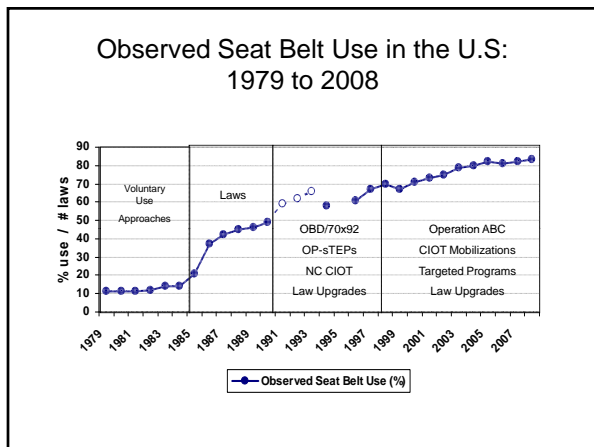
In addition, Seat Belt Use is Lowest Late at Night

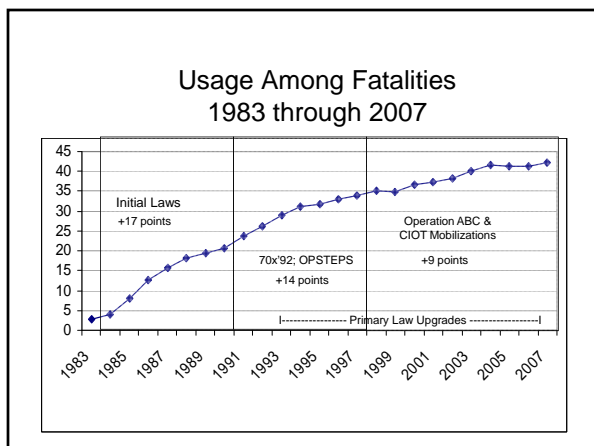
Particularly Among Occupants Involved in Serious Crashes

Progress Made in Increasing Seat Belt Use

- Observed Use
- Use Among Fatalities







Gains in Usage
have Diminished in Recent Years

Methods for Increasing
Seat Belt Use

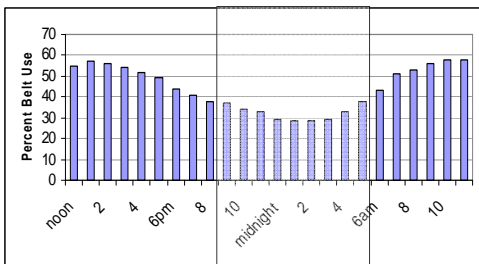
- Voluntary Approaches
 - Education
 - Mass Media
 - Incentives
- Mandatory Approaches
 - Legislation
 - Enforcement
 - Sanctions

This Presentation Focuses on:

- Primary Law Upgrades, and
- Nighttime Seat Belt Enforcement

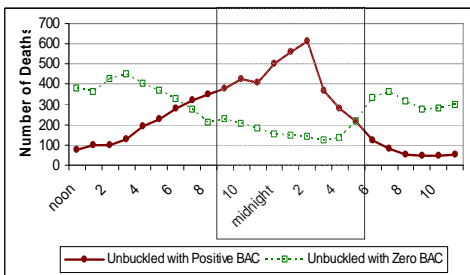
Seat Belt Use among Fatally Injured Occupants is Lowest Late at Night

All Ages: Source: FARS



Number of Unbuckled Fatalities, by Time of Day, and by Presence or Absence of Alcohol: All Ages

(Source: FARS)



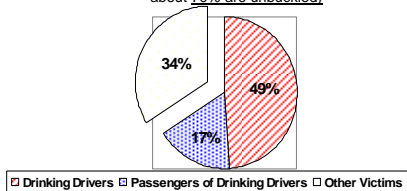
In Summary

Among All Ages (including Youth) --

- Unbuckled Deaths Peak Late at Night
- Alcohol-Related Deaths Peak Late at Night
- Unbuckled, Alcohol-Related Deaths Peak Late at Night

Another fact you should know about alcohol-related deaths

About 2/3rds of the victims of alcohol-related crashes are in the drinking drivers vehicle, and about 70% are unbuckled).



Two Closely-Related Objectives

- Increase usage among occupants involved in nighttime fatal crashes
- Increase usage among drinking drivers and their passengers

Primary Law Upgrades

- impact nighttime usage
- affect usage among drinking drivers
- facilitate nighttime enforcement efforts

Summary of Five-State Case Study (Voas et al., 2007)

- California (1993) + 13 points (obs. use)
 - Maryland (1997) + 13 points “
 - Michigan (2000) + 13 points “
 - Washington (2002) + 12 points “
 - Illinois (2003) + 8 points “
- All but Maryland had increases in usage among front-seat occupants in A/R fatal crashes
 - (for some unknown reason there was a very high baseline rate in Maryland)
 - Decreases in A/R deaths documented in California, Michigan, and Washington

Study of Nighttime Usage in Six States

(Front-Seat Occupants, Ages 13 and over, in Fatal Crashes; Masten, 2007)

- Oklahoma (1997) +12 points
 - Maryland (1997) +13 points
 - Indiana (1998) + 7 points
 - Alabama (1999) +23 points
 - Michigan (2000) +13 points
 - New Jersey (2000) +17 points
- All (but Maryland) experienced increases in daytime and nighttime usage among occupants killed in fatal crashes
 - In Michigan and New Jersey, nighttime increases were greater than daytime increases

Increases are relative to a control group of 29 secondary law States that did not upgrade

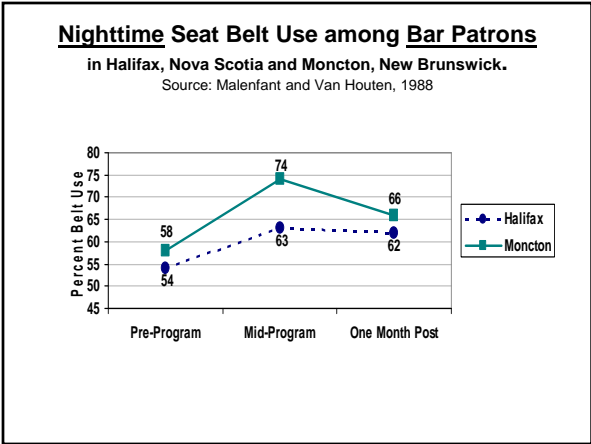
In Summary of Primary Law Upgrades

There is substantial evidence that such law changes can impact belt use among late-night and drinking drivers, resulting in reductions in deaths & injuries

Nighttime Enforcement

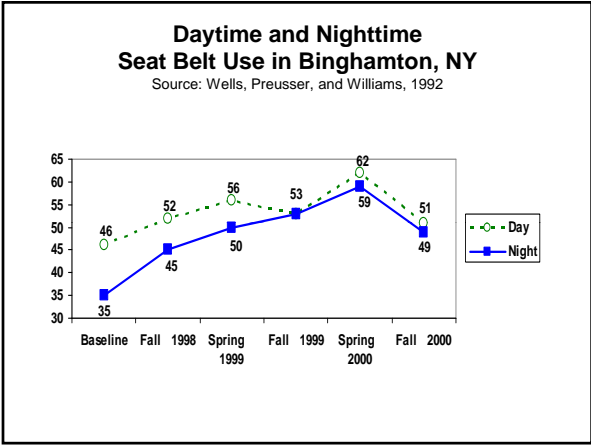
Examples of Programs for which some impact has been documented

- ### Early Study in Canada
- in Halifax, Nova Scotia and in Moncton, New Brunswick
- Primary law
 - Baseline usage
 - Halifax: 86% daytime; 58% nighttime
 - Moncton: 63% daytime; 54% nighttime
 - Four weeks of enforcement and publicity
 - Modest daytime effort
 - More intense night effort; special patrols near bars
 - Measured change in usage (daytime and nighttime)



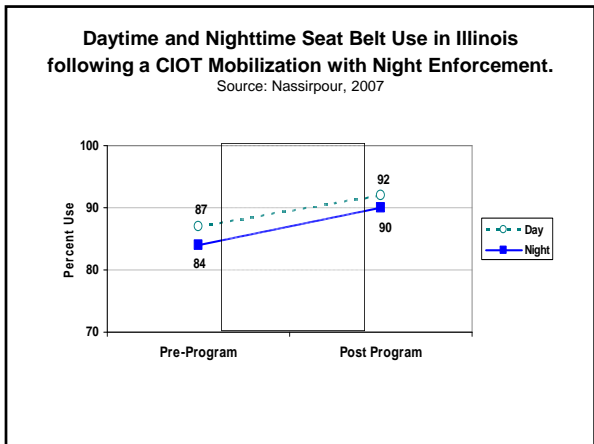
Binghamton, NY (1988-1990)
Combined Impaired Driving/Seat Belt Effort

- Primary law
- Low baseline rates (observed use)
 - 46% daytime; 35% nighttime
- Two-year program
 - Impaired driving and seat belt enforcement
- Daytime (SB) and nighttime (DWI) Checkpoints
 - 54 night checkpoints → 5,000 SB warnings; 300 DWI arrests
 - 8 day checkpoints → 864 SB citations.
- Substantial publicity (paid, earned, & PSAs)
- Impact:
 - fewer drinking drivers on the road (% stopped drivers HBD)
 - fewer late-night and injury-producing crashes
 - increased seat belt use



Illinois CIOT Mobilization (2007)

- Primary law state
- High baseline usage
 - 87% daytime;
 - 84% nighttime
- Typical CIOT Schedule
- Nighttime enforcement/publicity added
- Observed daytime and nighttime usage



Summary of Findings Regarding Nighttime Enforcement

- Nighttime usage is affected by nighttime enforcement more than by daytime enforcement (a few studies)
- Daytime usage may or may not be affected by nighttime enforcement (a few studies)
- Some evidence of impact on impaired driving and alcohol-related crashes (one study -- the combined DWI/SBU effort in Binghamton, NY)
- Documented impact of nighttime enforcement is still not as strong as the documented impact of law upgrades

Overview and Summary Primary Law Upgrades and Nighttime Enforcement

- Seat belt non-use and DWI are related problems
- Seat belt use is low at night and among alcohol-involved crash victims
- Law upgrades have resulted in increases in usage among crash victims (A/R and non-A/R).
- Night SB enforcement can increase night usage --to a greater extent than daytime enforcement affects night usage.
- Combined nighttime enforcement of SB and DWI laws is likely to impact both problems -- particularly in conjunction with primary law upgrades.

**Other Programs to Reach
High Risk, Low Use Groups**
Teens, Rural Occupants,
Pickup Trucks, Ethnic Groups, etc.

END
