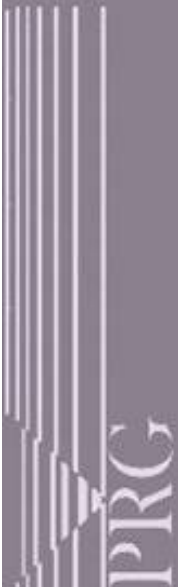


# Traffic Safety Performance Measures for States and Federal Agencies

Jim Hedlund, Highway Safety North  
Preusser Research Group, Inc.

GHSA 2008 Annual Meeting  
Scottsdale, AZ  
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The logo for PRG (Public Resources Group) is located in the bottom left corner of the slide. It consists of the letters 'PRG' in a stylized, serif font, with a graphic element of vertical lines of varying heights to the left of the text.

## Objective

“Develop voluntary guidance on a minimum set of performance indicators that could be used by federal, State, and local governments in the development and implementation of their highway safety plans and programs.”

Key features of performance measures:

- Consensus: federal and State
- Both general and specific subject area measures
- Both outcome (bottom line) and intermediate
- Timeliness, accuracy, feasibility, costs and benefits

# Project organization

- PRG – Contractor
- Jim Hedlund, Highway Safety North – Project Director
  
- GHSA – Subcontractor
- Barbara Harsha and staff
  - liaison with States
  - facilities for panel meetings
  
- Expert panel – advice and counsel

## Expert panel

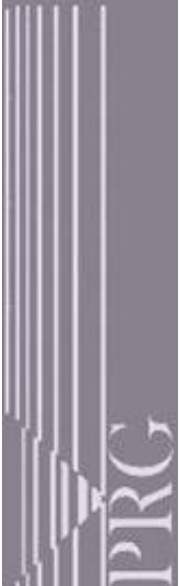
- 5 NHTSA: Chakiris, Weiser; Geraci, Michael, Oates
- 5 State GRs: Depue MO, Murphy CA, Poole TN, Porter/Lind WA, Sandoval NM
- 1 State DOT: Welch IA
- 1 FHWA: Halladay
- 1 IACP: McMahon
- 1 State data expert: Presbury MD
- 1 TRB perf measure committee chair: Neumann
- 5 research: Dellinger CDCP, Fell PIRE, McCartt IIHS, Shinar Israel, Weiss PAR
- 1 wild card: McNamara

## Activities and schedule

- Form advisory panel
- Review and summarize literature, current federal and State performance measures
- Panel meeting: Jan. 17, 2008
  - initial draft: minimum set of performance measures
- White paper: document draft measures
- Feedback on initial draft: NHTSA, GHSA, others
- Panel meeting: May 13, 2008
  - agree on consensus performance measures
- Draft report and guidance for consensus measures
  - to panel, GHSA, NHTSA for comment
- Final report: Aug. 20, 2008

# Purposes of performance measures

- Set goals
- Allocate resources
- Connect goals to actions
- Monitor and evaluate progress
- Communicate results



## Criteria for performance measures

- Important and valid; substantial traffic safety impact
- Uniform across States (if measure is aggregated)
- Sensitive to actual State-level trends
- Long-term; can be used for years
- Acceptable to stakeholders; consensus
- Operational definition; clear how to obtain measure
- Accurate, reliable, repeatable
- Understandable; easy to communicate to public
- Timely
- Reasonable cost for value of information
- Not too many; only the most important

# Types of performance measures considered

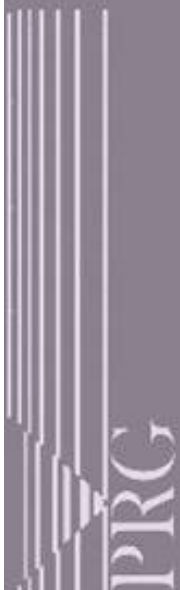
- Outcome measures
  - Crashes, injuries, fatalities
- Behavior measures
  - Observed (belt use)
  - Self-reported (survey)
- Activity measures
  - Law enforcement (checkpoints, citations)
  - Media
  - Other key activities

# State uses for performance measures

- Outcome measures
  - Set goals in highway safety plans
  - Track and report progress
  - Call these “core outcome measures”
- Behavior and activity measures
  - No goals required in highway safety plans, except for seat belt use
  - Track and report progress
  - Establish necessary data collection and reporting systems

## NHTSA uses for performance measures

- Use the core outcome measures as an integral part of reporting to Congress and the public

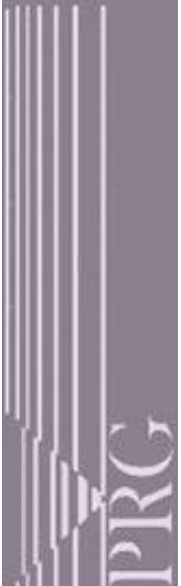


## State responsibilities

- Set performance goals for each core outcome measure; track and report on goals and progress in annual highway safety plans and annual reports
- Track and report on progress for each behavior and activity measure; report to NHTSA annually
- Collect, analyze, and report data on all measures
  - may require funds to establish and operate data collection and reporting systems that are not now in place

## NHTSA responsibilities

- In cooperation with the States, develop uniform definitions, protocols, and reporting requirements for each performance measure
- Assist States in establishing necessary data collection and reporting systems that are not now in place



## Potential areas for performance measures

- Overall
- Seat belt use
- Child occupants
- Alcohol
- Speeding and aggressive driving
- Motorcyclists
- Young drivers
- Older drivers
- Pedestrians
- Bicyclists

## Initial performance measure sources

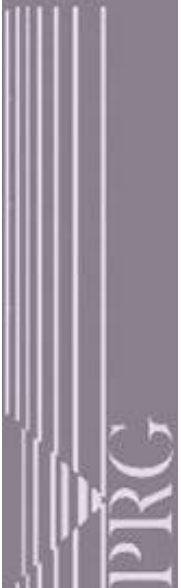
- State Strategic Highway Safety Plans
- State HSPs (402 plans)
- GHSA highway safety plan template for States
- PIRE report “Traffic Safety Measures for States and Communities” July 2004
- Performance measures used in other countries
- Suggestions from NHTSA, States, expert panel
- Information summarized in final report

## Measures in the minimum set

- 10 core outcome measures
- 1 core behavior measure
- 3 activity measures
- 4 areas with measures under development
  
- Numbered by type:  
A = activity, B = behavior, C = core outcome
  
- Data source in parentheses  
(FARS), (survey), etc.

# Overall measures

- Core outcome measures
  - C-1) Number of traffic fatalities (FARS)
  - C-2) Number of persons seriously injured in traffic crashes  
(State crash data files)
  - C-3 Traffic fatalities / VMT (FARS, FHWA)



## Seat belt measures

- Core outcome measure
  - C-4) Number of unrestrained passenger vehicle occupant fatalities, all seat positions (FARS)
- Core behavior measures
  - B-1) Observed belt use (passenger vehicles, front seat outboard) (survey)
- Activity measure
  - A-1) Number of seat belt citations issued during grant-funded enforcement activities (grant activity reporting)

## Alcohol measures

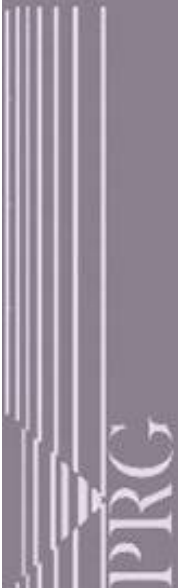
- Core outcome measure
  - C-5) Number fatalities in crashes involving a driver or motorcycle operator with BAC  $\geq$  .08 (FARS)
- Activity measure
  - A-2) Number of impaired driving arrests made during grant-funded enforcement activities (grant activity reporting)

# Speeding and aggressive driving measures

- Core outcome measure
  - C-6) Number of speeding-related fatalities (FARS)
- Activity measure
  - A-3) Number of speeding citations issued during grant-funded enforcement activities (grant activity reporting)

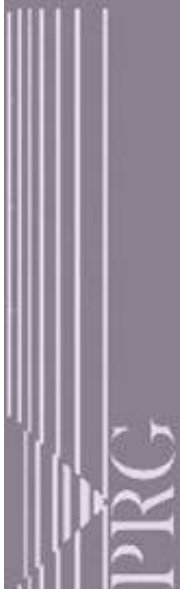
# Motorcyclist measures

- Core outcome measure
  - C-7) Number of motorcyclist fatalities (FARS)
  - C-8) Number of unhelmeted motorcyclist fatalities (FARS)



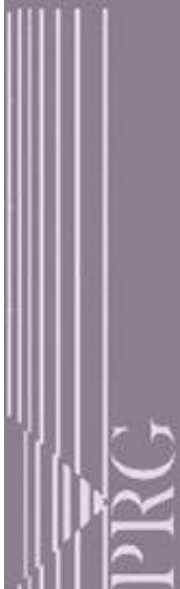
## Young driver measures

- Core outcome measure
  - C-9) Number of drivers age 20 or younger involved in fatal crashes (FARS)



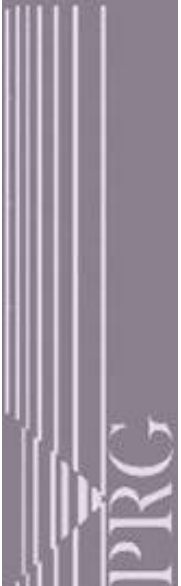
# Pedestrian measures

- Core outcome measure
  - C-10) Number of pedestrian fatalities (FARS)



## No measures in minimum set

- Child occupants
- Aggressive driving (aside from speeding)
- Older drivers
- Bicyclists

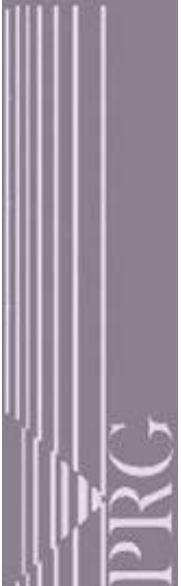


## Measures under development: NHTSA-GHSA

- Traffic injury data
  - best way to report serious injuries using each State's current crash data file
  - move toward common and improved definitions, reporting
- Telephone or similar surveys
  - develop and test basic survey questions on seat belt use, impaired driving, speeding
  - States will begin reporting in 2010 HSPs and Annual Reports
- Speed monitoring (with FHWA)
  - develop guidance for speed reporting
  - work toward establishing speed monitoring and reporting systems

# Measures under development: NHTSA-GHSA

- Law enforcement activities
  - report citations and arrests from grant-funded activities for alcohol, seat belts, and speeding in 2010 HSPs and Annual Reports
  - extend reporting as technologies and systems are developed and implemented (electronic citations)
  - current NHTSA contract to develop more comprehensive performance measures for enforcement activities (PIRE)



## Report available from NHTSA or GHSA

- Traffic Safety Performance Measures for States and Federal Agencies  
DOT HS 811 025 August 2008

