



# South by Southwest Webinar, February 27

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# POLICY RESEARCH & EVALUATION

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# OBJECTIVES

As a result of this session, participants will be able to:

- 1) Describe different types of policy research & evaluation.
- 2) Consider concrete examples of policy evaluation.



# BASIC PRINCIPLES



# WHAT IS POLICY?

- Strategies for governing practices & behavior
  - *Governmental* (international, federal, state, tribal, local)
    - Laws
    - Regulations
    - Common law: cases
  - *Organizational* (e.g., business, school, hospital, professional organization)



# EXAMPLES OF LAWS

## *Governmental Laws:*

**International:** EU Product Standards, international land mine treaty

**Federal law:** (e.g., OSHA, child labor, Brady Law, drinking age)

**State or tribal law:** (e.g., alcohol taxation, building codes, workers comp, seat belt laws, GDL, fire safe cigarettes, child abuse reporting, death penalty)

**Local law** (e.g., pool fencing ordinances, speed cameras, publishing sex offender lists)



# EXAMPLES OF REGULATIONS

## Regulations:

**Governmental agencies:** (e.g., NHTSA for cars; CPSC for toy safety)

**Organizational:** (e.g., crim checks for college applicants, hospital screening for IPV, athletic trainers in schools, alcohol brief interventions in ED's, 80 hour week for medical residents)





# INJURY-DIRECTED VS. INJURY-RELATED POLICY

## **Injury-directed policies (laws or regulations):**

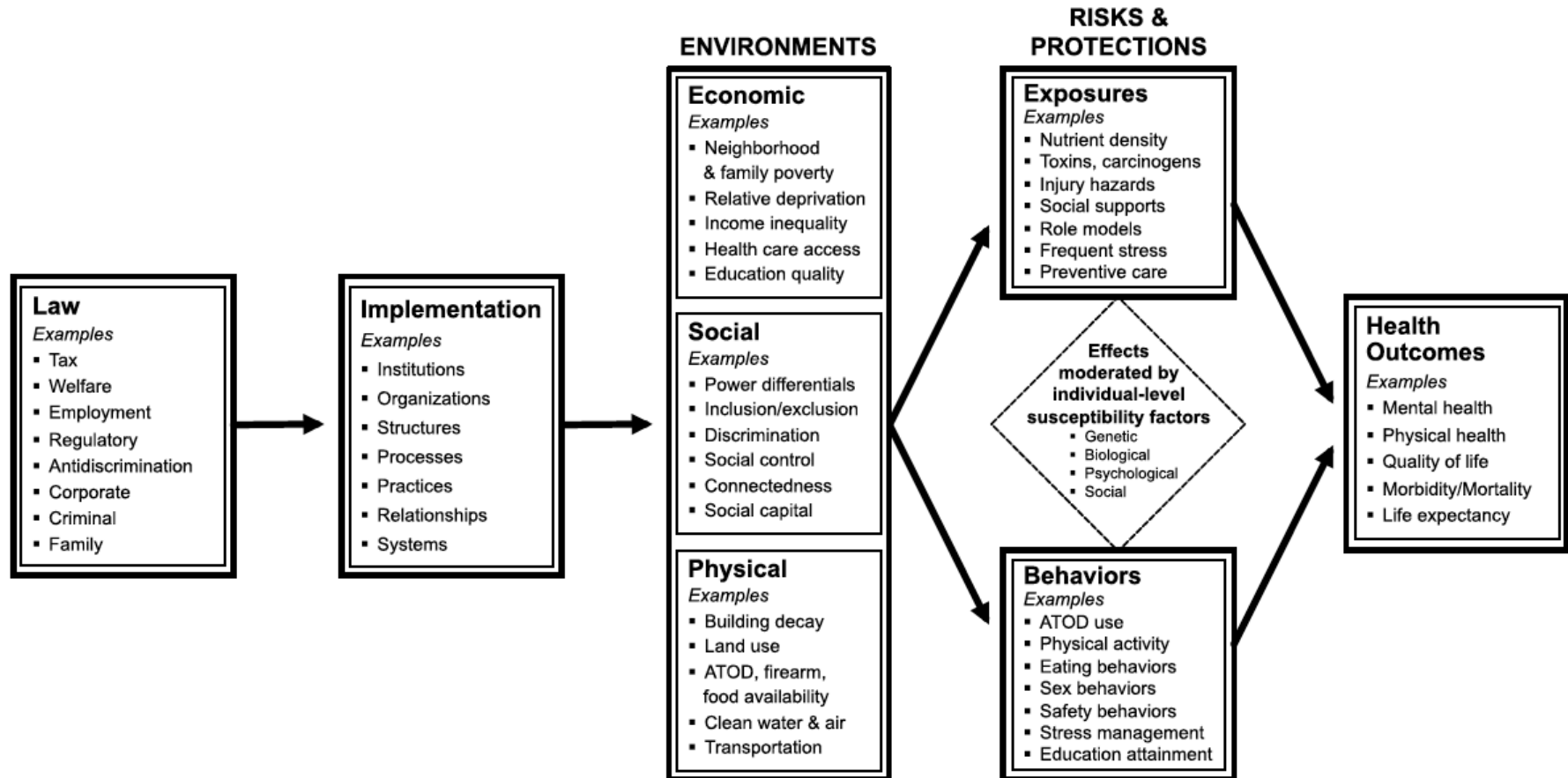
- developed with purpose of improving safety / reducing / treating injury

## **Injury-related policies:**

- not necessarily intended to influence injury, but potential impact (e.g., welfare policy, day care availability, tax policy, zoning laws)



# Causal diagram showing a public health perspective on how law affects population health *(from: Komro L, O'Mara R, Wagenaar, A, 2012)*



# DIFFERENT TYPES OF POLICY STUDIES

- Policy attitudes
- Policy advocacy
- Policy enactment
- Policy implementation
- Policy awareness
- Policy analysis
- Policy mapping
- Evaluation of health outcomes of policy interventions



# POLICY ATTITUDES

Examine attitudes/beliefs about policy issues or policy options (e.g., opinion polls, values re: policy options)

***Purpose:*** To understand barriers to successful implementation, enactment or adherence to policy.

***Examples:***


- What are citizen attitudes about a law to restrict use of cell phones in cars?
- What are attitudes of health care providers re: IPV screening?
- What is the acceptable level of increased tax on alcohol in the state?
- What is the nature of opposition to a proposed bill to prohibit corporal punishment in schools?
- Why are businesses failing to comply with laws requiring work permits for teens?

# POLICY ADVOCACY

**Examine the process of advocacy for given policies or related to specific issues**

***Purpose:*** To learn about successful and unsuccessful advocacy approaches to inform future policy change processes.

## **Examples:**

- What lessons can be learned about advocacy from examining how the firesafe cigarette legislation unfolded over many years?
  - What successful strategies did MADD use to effect change in DUI laws nationwide?
  - What approaches are being used to promote right to carry policies for college campuses?
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# POLICY ENACTMENT

To understand factors that influence successful enactment of policies in a given jurisdiction

***Purpose:*** To learn how to improve enactment process.

***Examples:***

- How do decision makers respond to different types of information in making policy decisions?
- What is the role of the media in influencing corporate safety practices?
- How do community-level opinion leaders influence adoption of school board policies?


# POLICY IMPLEMENTATION

Examine policy implementation issues, including enforcement:

## *Purpose:*

- to improve implementation
- to determine if implementation issues are the reason for policy failure or success (process evaluation)

## *Examples:*

- How well is the highway patrol enforcing the cell phone ban?
  - Are child care facilities adhering to the standards for playground safety?
  - Are child abuse cases being reported to authorities from the emergency department?
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# POLICY AWARENESS

How aware / knowledgeable are given groups about the existence of particular policies?

***Purpose:*** To examine possible needs for increasing awareness as a means of improving policy success.

***Examples:***

- Do parents and employers understand child labor laws?
- To what extent are employees aware of their own rights as workers? Are EMS providers aware of triage protocols for regional trauma care?



# POLICY ANALYSIS

**Conduct policy analysis:** – Comparing attributes of policy alternatives to solve a problem using defined values/criteria, such as:

- Effectiveness (policy evaluation research – see subsequent slide)
- Freedom
- Cost
- Equity (vertical or horizontal)
- Stigmatization
- Preferences
- Technologic or political feasibility
- Ethically appropriate
- Legally permissible (i.e. constitutional, within powers granted an agency or locality)

***Purpose:*** To select among alternative policy approaches to solving a problem by factoring in multiple values.

**Examples:**

- Comparing options of: raising tax on alcohol vs. server training to reduce DWI fatalities



# POLICY MAPPING

- Compare policies across jurisdictions / settings – to describe variations in approaches

***Purpose:*** Consider alternative ways jurisdictions have approached safety policy so as to learn from other's experiences.

***Examples:***

- How do state policies differ with respect to addressing IPV in workplaces?
- How do GDL policies vary across states?
- What are the differences among universities with respect to doing crim checks at the time of admission?


# EVALUATION OF HEALTH OUTCOMES OF POLICY INTERVENTIONS

Evaluate effects of policy on : mortality, morbidity, disability, etc.

Compare policies across jurisdictions / settings – to evaluate differences in effect (ecologic studies)

***Purpose:*** To compare potential effect of policy variations or effects of policy over time (e.g., before/after or time trend studies)

***Examples:***

- Are there fewer suicides in states with stricter gun laws?
  - How do state teen driving fatalities differ by provisions of GDL policies?
  - Do companies requiring worker safety committees have fewer injuries?
  - To what extent are sports injuries reduced if schools require pre-season physicals?
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# UNINTENDED CONSEQUENCES OF POLICIES

What are the unintended consequences (positive or negative) of given policies not specifically designed to address safety ?

***Purpose:*** To explore potential injury effects of policies developed for other purposes, determining potential need for new injury control measures

***Examples:***

- How did the design of the placement of sidewalks and businesses influence pedestrian behaviors?
- To what extent is violence in a given locale influenced by a change in public transportation routes?
- How does the change in the minimum wage influence worker safety?

# IMPORTANCE OF POLICY EVALUATION & RESEARCH

- Public health is about the health of populations
- Population level change requires population level approaches
- Population level approaches often rely on policy change (laws and regulations)
- As with any type of intervention, policy interventions require careful research and evaluation to develop, implement & evaluate
- Varied methods required depending on question & circumstances. One size does not fit all.
  - Qualitative and quantitative
  - RCT's and quasi-experimental studies

**EXAMPLE**



# **EXAMPLE: THE ENHANCING VEHICLE-TO-VEHICLE CRASH COMPATIBILITY (EVC) AGREEMENT**

- Voluntary agreement involving NHTSA, the Insurance Institute for Highway Safety, and the major automobile manufacturers
- Address the issue of crash compatibility between passenger cars and light trucks and SUVs
- In the 1990's there was a 2.4 times greater risk of death from light trucks and SUVs

***IN CRASHES (ABOVE). A VOLUNTARY AGREEMENT AMONG AUTOMAKERS HAS  
RESULTED IN FRONT ENDS THAT LINE UP BETTER (BELOW),  
REDUCING DEATHS AND INJURIES.***





# RESEARCH APPROACHES

Policy Implementation

Outcome Evaluation

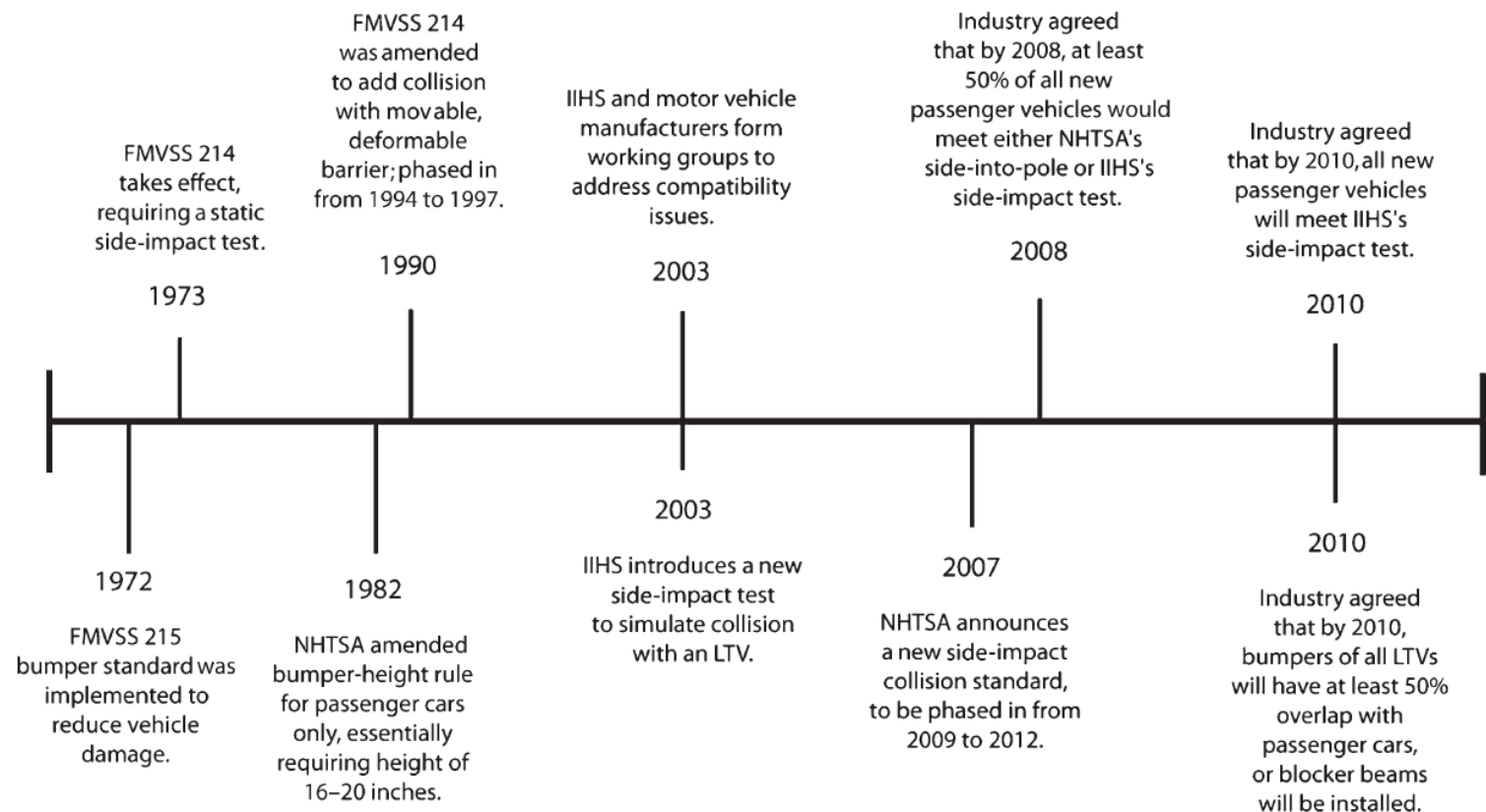
Impact Evaluation



# POLICY IMPLEMENTATION RESEARCH

- Systematic review of interventions
  - Included bumper heights and front-end structures
- To what extent have those interventions been implemented

Vernick JS, Tung GJ, Kromm JN. Interventions to reduce risks associated with vehicle incompatibility. *Epidemiol Rev.* 2011;34(1):57-64.



**Figure 1.** Timeline of significant regulations and voluntary agreements regarding motor vehicle side-impact protection and bumper height, United States. FMVSS, Federal Motor Vehicle Safety Standard; IIHS, Insurance Institute for Highway Safety; LTV, light truck and sport utility vehicle; NHTSA, National Highway Traffic Safety Administration. One inch = 2.54 cm.

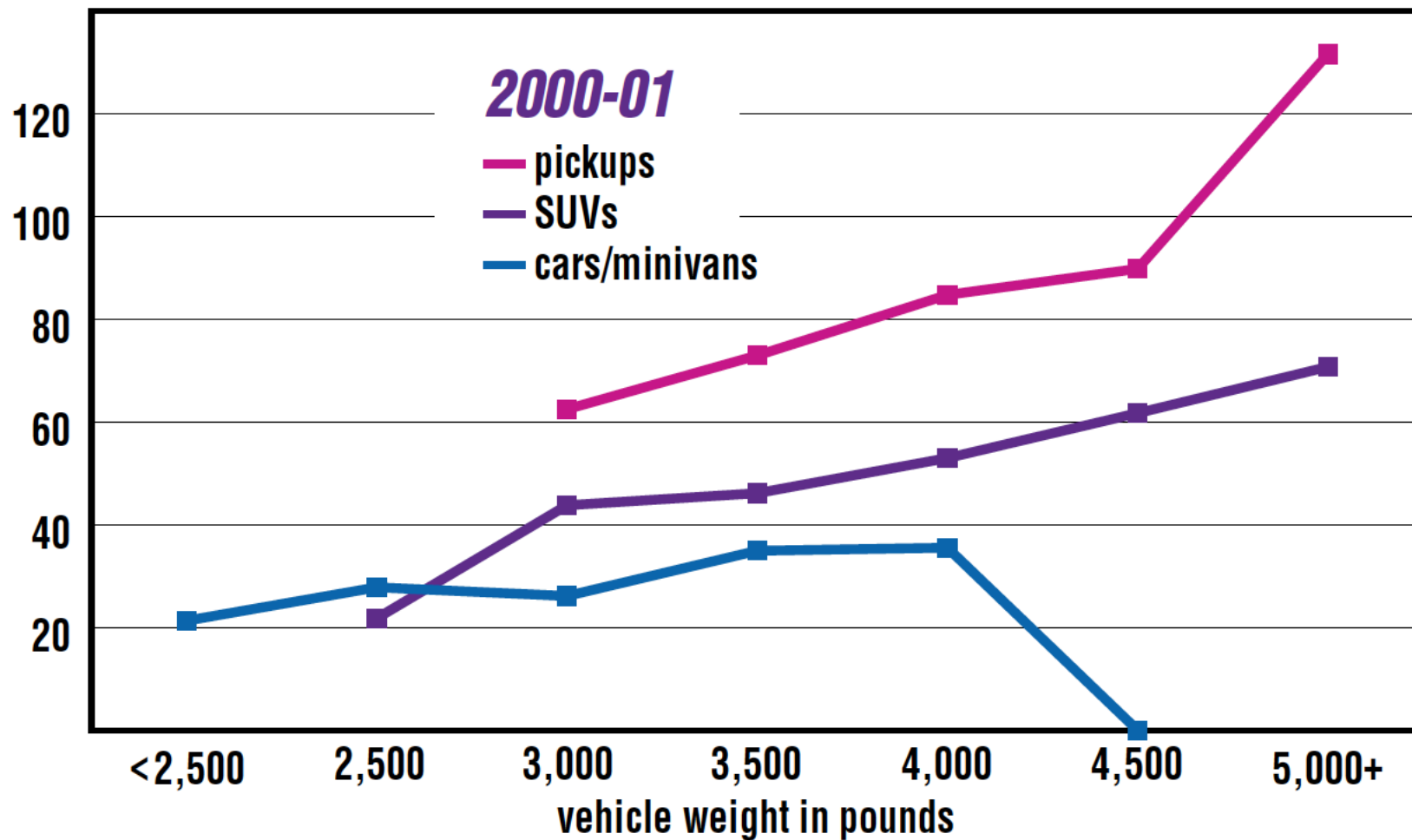
# CONCLUSION

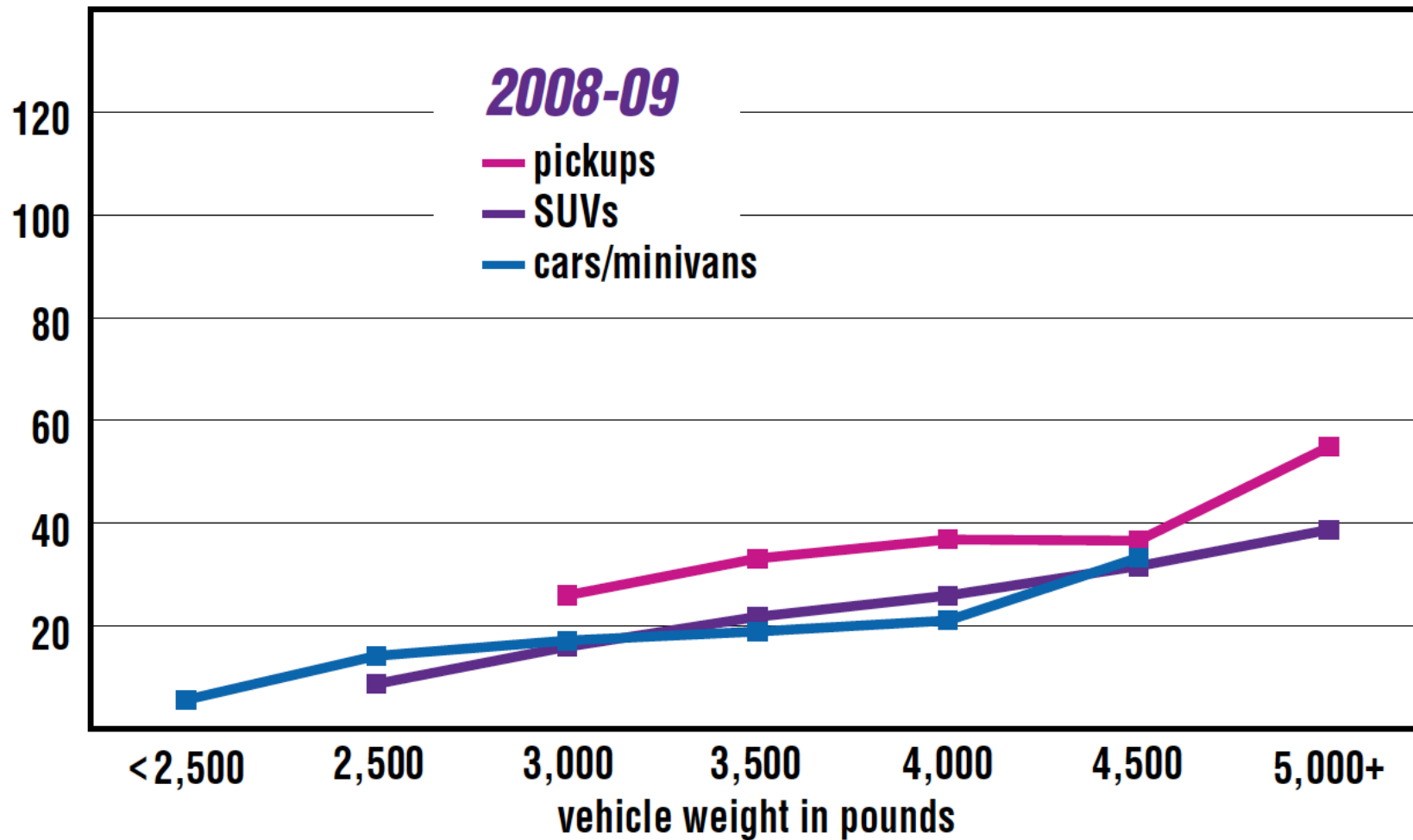
- Found that bumper height and front-end structure based interventions have been implemented via a voluntary industry agreement
  - The Enhancing Vehicle-to-Vehicle Crash Compatibility Agreement
- Potential issues with an industry voluntary agreement being the implementing mechanism

# OUTCOME EVALUATION

- Conducted by the Insurance Institute for Highway Safety
- Has the EVC helped to improve the issue of crash compatibility between passenger vehicles and light trucks and SUVs
- Examined crash partner death rates

“Is passenger vehicle incompatibility still a problem?” by E.R. Teoh and J.M. Nolan





# CONCLUSIONS

- Light Trucks and SUVs represented no greater risk to passenger cars
- Attributed improvement to EVC
- Limitations of study design





# IMPACT EVALUATION

- Conducted by NHTSA
- Study design focused on time of adoption of EVC recommendations
- Calculated rate ratios pre and post EVC adoption by model

Greenwell, N. K. (2012, May). Evaluation of the Enhancing Vehicle-to-Vehicle Crash Compatibility Agreement: Effectiveness of the primary and secondary energy-absorbing structures on pickup trucks and SUVs. (Report No. DOT HS 811 621 ). Washington, DC: National Highway Traffic Safety Administration.

# RESULTS

**Overall: 8% decrease in fatality rate associated with model adoption of EVC requirements**

**Pickup Truck only: 4.9% increase in fatality rate associated with model adoption of EVC requirements**

**SUV only: 17.5% decrease in fatality rate associated with model adoption of EVC requirements**



# CONCLUSIONS

Moderate evidence for effectiveness of EVC in address vehicle compatibility

Discrepancy between pickup trucks and SUVs

Additional research needed



# REFLECTION

Policy Implementation

Outcome Evaluation

Impact Evaluation



## OTHER RESOURCES TO LEARN MORE

- Public Health Law Research Center
- <http://publichealthlawresearch.org>