Pedestrian Safety and the Highway Safety Improvement Program

Karen Scurry, FHWA Office of Safety
Kohinoor Kar, Arizona Department of Transportation
David Cohen, FHWA California Division

March 13, 2014
Today’s Presentation

- Introduction and housekeeping
- Audio issues?
  Dial into the phone line instead of using “mic & speakers”
- PBIC Trainings and Webinars
  www.pedbikeinfo.org/training
- Registration and Archives at
  pedbikeinfo.org/webinars
- PBIC News and updates on Facebook
  www.facebook.com/pedbike
- Questions at the end
Welcome to the new PedBikeInfo website

The PBIC combined WalkingInfo.org and BicyclingInfo.org into this new site, featuring all the same resources in a more user-friendly format.

PBIC updates PEDSAFE guide

The Pedestrian Safety Guide and Countermeasure Selection System has the latest on improving pedestrian safety and mobility.

Latest Facebook updates

Pedestrian and Bicycle Information Center

London is testing out new pedestrian crossing sensors to make it easier for people to cross the street:

Smart pedestrian crossings for London in pioneering new
Welcome to the new PedBikeInfo website

The PBIC combined WalkingInfo.org and BicyclingInfo.org into this new site, featuring all the same resources in a more user-friendly format.

PBIC updates PEDSAFE guide

The Pedestrian Safety Guide and Countermeasure Selection System has the latest on improving pedestrian safety and mobility.

Latest Facebook updates

Pedestrian and Bicycle Information Center
London is testing out new pedestrian crossing sensors to make it easier for people to cross the street:

Smart pedestrian crossings for London in pioneering new
FHWA Pedestrian Focus Webinars

The Federal Highway Administration (FHWA) Office of Safety and the Pedestrian and Bicycle Information Center (PBIC) will offer webinars intended to help communities address pedestrian safety issues and initiate the steps to drafting a tailored pedestrian safety action plan. Modeled after the FHWA’s/PBIC’s in-person training courses, the webinars will focus on topics ranging from engineering treatments to data collection and funding.

3/13/2014— "Pedestrian Safety and the Highway Safety Improvement Program"
Presented by Karen Scurry, FHWA Office of Safety; Kohinoor Kar, Arizona DOT; David Cohen, FHWA California Division

12/6/2013— "Pedestrian Facility Maintenance Webinar"
Presented by Thomas Huber, Toole Design Group; Dan Bauer, City of Minneapolis; and Aaron Lavine, City of Ithaca.

Presented by Charlie Zegeer, UNC Highway Safety Research Center; Dan Nabors, Vanasse Hangen Brustlin, Inc.; and Peter Lagerwey, Toole Design Group.

5/28/2013— "Systemic Safety Project Selection Tool"
Presented by Karen Scurry, FHWA Office of Safety; and Howard Preston, CH2M HILL.

3/14/2013— "Technical Assessment of State Pedestrian Safety Programs"
Presented by Leah Walton, National Highway Traffic Safety Administration; and Trenda McPherson, Florida Department of Transportation.

11/20/2012— "Road Diets and Pedestrian Safety"
Presented by Libby Thomas, UNC Highway Safety Research Center; Gina Coffman, Florida Department of Transportation; and Anthony Hanks, Toole Design Group.
Poll Question

⇒ Please vote in the poll to let us know how many people are joining the webinar from your location.
Thank You!

- Archive at www.pedbikeinfo.org/webinars
  - Downloadable/streaming recording and presentation slides

- Questions?
  - Karen Scurry
    karen.scurry@dot.gov
  - Kohinoor Kar
    kkar@azdot.gov
  - David Cohen
    david.cohen@dot.gov

- General Questions
  webinars@hsr.unc.edu
Pedestrian Safety and the Highway Safety Improvement Program

March 13, 2014

Karen Y. Scurry, P.E.
FHWA Office of Safety
Highway Safety Improvement Program

Purpose:
Reduce fatalities and serious injuries on ALL public roads

- Strategic safety planning
- Data-driven roadway safety management process
- Highway safety improvement projects
- Federally-funded, state administered
HSIP Project Eligibility

Addresses an SHSP Priority

Identified through a data-driven process

Targets identified safety issue

Reduces fatalities and serious injuries

Highway Safety Improvement Program
Project Eligibility

The Focus is Results!

In 2009, motor vehicle fatalities reached levels not seen since 1960. Can all of this decline be attributed to the economic downturn leading to less roadway travel? The numbers say “no.” Vehicle miles traveled (VMT) have declined much less than the decrease in fatalities, giving evidence to the fact the increased focus on and commitment to safety is paying off. Legislation at 53 USC 144 and advances in the science of safety have enabled a different approach for states, regions, and localities to address safety issues and challenges, and the difference is clear.

By requiring the states to develop and implement Strategic Highway Safety Plans (SHSP) as part of the Highway Safety Improvement Program (HSIP), HSIPs become part of a broader vision involving multiple stakeholders and integrating into the planning process. The clear purpose is to achieve significant reductions in traffic fatalities and serious injuries on all public roads. The new approach provides direction for achieving the purpose.

A formula apportioned HSIP funds to state departments of transportation (DOT) to administer, but any public road or pathway, including those owned by local governments, can benefit. The objective is to target resources where they will be most effective, which means the focus is results.

Eligibility Criteria

All transportation projects should include an explicit consideration of safety and can be funded through a variety of federal and state sources. To most effectively and efficiently apply limited HSIP funds, use the criteria below.

- Projectaddresses priorities in the state’s SHSP.
- Projects are selected for funding through collaboration with state partners; the SHSP process identifies statewide emphasis areas with the greatest potential for reducing fatalities and serious injuries. Linking the HSIP with the SHSP ensures HSIP projects address priorities identified through the broader statewide strategic approach. For example, many SHSPs include a roadway departure emphasis area addressed using HSIP funds to implement low-cost safety improvements.
- Projects or countermeasure selection is based on a data-driven process.
- Data is the driving force in the decision-making process. With good data and analytic tools, states are able to identify systemic or site-specific safety problems, select and prioritize countermeasures, and evaluate impact on reducing fatalities and serious injuries.
- The selected countermeasures address the identified problems.

Ample resources and tools are available to help select the most effective projects, which also may include well-designed innovations.

http://www.fhwa.dot.gov/map21/guidance/guidehsip.cfm
Strategic Highway Safety Plans (SHSPs)

Data-driven *statewide* plan

- Establishes a common vision, mission and goals to save lives on all public roads
- Identifies a State’s key transportation safety needs and guides investment decisions
- Prioritizes strategies with the greatest potential to reduce fatalities and serious injuries
- Developed in collaboration with a broad range of stakeholders
- Multidisciplinary addressing 4 Es of Safety
State SHSPs with Pedestrian-related Emphasis Area

Source: 2013 FHWA SHSP Scan

http://safety.fhwa.dot.gov/hsip/shsp/state_links.cfm
Pedestrian Safety Action Plans

- Goals & Objectives
- Existing Conditions
- Policy and Non-engineering recommendations
- System-wide engineering recommendations
- Site specific recommendations for high crash areas

State Highway Safety Improvement Program

Planning

Problem Identification

Countermeasure Identification

Project Prioritization

HSIP Project List

STIP

Implementation

Schedule and Implement projects

Evaluation

Determine Effects of Highway Safety Improvements

HSIP

Site Analysis Approach

Systemic Approach

Data/Design Standards

Feedback
Site Analysis Approach

• Network Screening Process
  – Establish reference population
  – Apply problem identification methodology
  – Apply screening method
  – Evaluate and screen results

HCLs
Example

Table 12: High Pedestrian Crash Corridors, 2004-2006

<table>
<thead>
<tr>
<th>County</th>
<th>Name</th>
<th>From</th>
<th>To</th>
<th>Total Crashes</th>
<th>Fatal Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fulton</td>
<td>ROSWELL RD</td>
<td>LAKELAND DR</td>
<td>DALRYMPLE RD</td>
<td>55</td>
<td>1</td>
</tr>
<tr>
<td>Dekalb</td>
<td>BUFORD HWY</td>
<td></td>
<td>SHALLOWFORD RD</td>
<td>42</td>
<td>2</td>
</tr>
<tr>
<td>Fulton</td>
<td>PONCE DE LEON AVE</td>
<td>DURANT PL</td>
<td></td>
<td>41</td>
<td>2</td>
</tr>
<tr>
<td>Fulton</td>
<td>PEACHTREE ST</td>
<td></td>
<td></td>
<td>39</td>
<td>1</td>
</tr>
<tr>
<td>Fulton</td>
<td>BANKHEAD HWY</td>
<td>MAYNARD CT</td>
<td>PIERCE AVE</td>
<td>38</td>
<td>0</td>
</tr>
<tr>
<td>Dekalb</td>
<td>GLENWOOD AVE</td>
<td>BROWNWOOD AVE</td>
<td>CLARKE LN</td>
<td>37</td>
<td>3</td>
</tr>
<tr>
<td>Dekalb</td>
<td>CLAYTON</td>
<td></td>
<td>GREENBRIAR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dekalb</td>
<td>CANDLER RD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulton</td>
<td>PEACHTREE R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clayton</td>
<td>RIVERDALE R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dekalb</td>
<td>MORELAND A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulton</td>
<td>STEWART AVI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulton</td>
<td>BOULEVARD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fulton</td>
<td>NORTH AVE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 13: High Pedestrian Crash Intersections, 2004-2006

<table>
<thead>
<tr>
<th>County</th>
<th>Route</th>
<th>Description</th>
<th>Total</th>
<th>Fatal</th>
<th>Injury</th>
<th>Severity</th>
<th>AADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fulton</td>
<td>Fulton SR 3</td>
<td>Stewart Ave @ Cleveland Ave</td>
<td>10</td>
<td>0</td>
<td>9</td>
<td>30</td>
<td>15628</td>
</tr>
<tr>
<td>Clayton</td>
<td>Clayton SR 139</td>
<td>Riverdale Rd at Garden Walk Blvd</td>
<td>7</td>
<td>1</td>
<td>5</td>
<td>37.14</td>
<td>35680</td>
</tr>
<tr>
<td>Dekalb</td>
<td>Dekalb SR 260</td>
<td>Glenwood Rd at Columbia Drive</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>33.33</td>
<td>22210</td>
</tr>
<tr>
<td>Fulton</td>
<td>Fulton CS 904-03</td>
<td>Martin Luther King Dr at Fulton CS 2003-03</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>26.67</td>
<td>21846</td>
</tr>
<tr>
<td>Fulton</td>
<td>Fulton CS 661-03</td>
<td>Peachtree St at Fulton CS 1828-03</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>23.33</td>
<td>18156</td>
</tr>
<tr>
<td>Fulton</td>
<td>Fulton CS 2001-03</td>
<td>International Blvd at Fulton CS 3695-03</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>20</td>
<td>10398</td>
</tr>
<tr>
<td>Fulton</td>
<td>Fulton SR 8</td>
<td>North Ave at W. Peachtree St</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>16.67</td>
<td>29345</td>
</tr>
<tr>
<td>Dekalb</td>
<td>Dekalb CS 693-05</td>
<td>Chamblee Dunwoody Rd at Cumberland Dr</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>60</td>
<td>11728</td>
</tr>
<tr>
<td>Dekalb</td>
<td>Dekalb SR 260</td>
<td>Glenwood Rd at E. Lake Blvd</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>36</td>
<td>18442</td>
</tr>
<tr>
<td>Fulton</td>
<td>Fulton SR 42-SP</td>
<td>McDonough Blvd at Henry Thomas Dr</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>36</td>
<td>13236</td>
</tr>
<tr>
<td>Fulton</td>
<td>Fulton CS 904-03</td>
<td>Martin Luther King Dr at Fulton CS 1868-03</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>28</td>
<td>21616</td>
</tr>
<tr>
<td>Dekalb</td>
<td>Dekalb SR 13</td>
<td>Buford Hwy at N. Cliff Valley Way</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>28</td>
<td>25234</td>
</tr>
<tr>
<td>Fulton</td>
<td>Fulton SR 883</td>
<td>Fulton SR 883 at Fulton CS 2051-03</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>32</td>
<td>11600</td>
</tr>
<tr>
<td>Fulton</td>
<td>Fulton SR 8</td>
<td>Ponce de Leon Ave at Kennesaw Ave</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>28</td>
<td>33390</td>
</tr>
<tr>
<td>Fulton</td>
<td>Fulton SR 8</td>
<td>Ponce de Leon Ave at Seminole Ave</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>28</td>
<td>36180</td>
</tr>
<tr>
<td>Fulton</td>
<td>Fulton SR 8</td>
<td>North Ave at Peachtree St</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>24</td>
<td>30590</td>
</tr>
<tr>
<td>Clarke</td>
<td>Clarke SR 10</td>
<td>Broad St at College Ave</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>24</td>
<td>30224</td>
</tr>
</tbody>
</table>

Source: Georgia Pedestrian Safety Action Plan
Systemic Approach to Safety

• Systemic Safety Improvement
  – An improvement that is widely implemented based on high-risk roadway features that are correlated with particular severe crash types.

• Systemic Problem Identification
  – System-wide crash analysis
  – Crash characteristics at the system level
# Pedestrian Risk Factors

## Pedestrian Crossing Crashes
- Number of lanes
- Traffic volume
- Presence/proximity of pedestrian generators
- Proximity of established crossings
- Responsiveness of pedestrian signal
- Other: Speed, lighting, crossing time, presence of center refuge

## Pedestrian Dart/Dash Crashes
- Sight distance
- Traffic volume
- Presence of on-street parking
- Age/sex of drivers and pedestrians
- Lighting
- Other: Mid-block crossings, alcohol, presence of pedestrian generators

## Pedestrian Walking Along Road Crashes
- Presence of shoulders/sidewalks
- Speed
- Lighting
- Time of day
- Walking direction (facing traffic or not)
- Other: Visibility of pedestrian, alcohol, driver distraction
Highway Safety Improvement Projects

• Strategies, activities, and projects on a public road that are consistent with a State strategic highway safety plan and
  – correct or improve a hazardous road location or feature; or
  – address a highway safety problem.

• Example list
Special Eligibility Considerations

• Automated enforcement
• Non-infrastructure projects
• Projects to maintain minimum levels of retroreflectivity

Improvement Category

- (1) Intersection safety project
- (2) Pavement/shoulder widening
- (3) Rumble strips
- (4) Skid resistant surface
- (5) Ped/bike hazard elimination
- (6) Rail-highway protective devices
- (7) Rail-highway enforcement
- (8) Ped/bike facilities
- (9) Traffic calming
- (10) Eliminate roadside obstacles
- (11) Improve sign/pavement marking
- (12) Emergency vehicle priority control
- (13) Traffic control device
- (14) Data collection and analysis
- (15) Ped/bike safety
- (16) High risk rural roads projects
- (17) Road safety audits
- (18) Other

Number of Projects

2009
2010
2011
2012

Benefits

• Target areas of greatest need
• Systematic and repeatable process
• Prioritized investments
• Defensible decisions
• Lives saved!!!
Resources

• HSIP Manual
• HSIP Training (NHI)
  – HSIP Overview
  – SHSP Development
  – SHSP Implementation
  – HSIP Project ID
  – HSIP Project Evaluation
• Systemic Safety Project Selection Tool
• Safety Peer-to-Peer Program
Notice of Proposed Rulemaking
Safety Performance Measures

- Proposes measures for safety
- Proposes method for States and MPOs to report targets and progress
- Proposes FHWA method to evaluate State target achievement
- Proposes requirements if targets are not achieved
Submit comments to:

www.regulations.gov

Safety PM Docket Number:
FHWA-2013-0020
Questions???

Karen Y. Scurry, P.E.
FHWA Office of Safety Programs
609-637-4207

karen.scurry@dot.gov
HSIP Funding and Pedestrian Safety
Arizona Experience

Kohinoor Kar, Ph.D., P.E., PTOE
Arizona Department of Transportation
March 13, 2014

Disclaimer: Contents in this presentation are for informational purpose only and may not necessarily reflect current ADOT policies or guidelines.
Strategic Highway Safety Plan

Pedestrian Safety

- Pedestrian fatalities constitute 18% of all fatalities in Arizona (2010-2012)
- Current SAFETEA-LU compliant Arizona SHSP (August 2007)
  - Pedestrian Safety under Intersection Emphasis Area (EA)
- Updated MAP-21 compliant Arizona SHSP (expected Spring 2014)
  - Pedestrian Safety under Non-Motorized Users EA
- Arizona HSIP Manual will be updated following publication of 2014 SHSP.

New Vision:

Toward Zero Deaths by Reducing Crashes for a Safer Arizona
Pedestrian Plans/Committees

State and Local

- Phoenix and Tucson are ‘focus cities’, Arizona is one of the ‘focus states’
- ADOT developed Pedestrian Safety Action Plan (PSAP) for the state highway system
  - Detailed plan with locations identified through data analysis
- City of Phoenix has a draft PSAP
- Cities of Tucson and Flagstaff have pedestrian advisory committees
- Maricopa Association of Governments (MAG) has Bicycle and Pedestrian as well as Transportation Safety Committees
- Pima Association of Governments (PAG) is updating their regional pedestrian plan
- Several other regional and local agencies have plans/committees addressing pedestrian issues
AZ Supplement to How To Guide Statewide for All Agencies

A Guide to Developing a Pedestrian Safety Action Plan

An Arizona Supplement to the National “How to Develop a Pedestrian Safety Action Plan”

Arizona Department of Transportation
Highway Enhancements for Safety (HES)
April 9, 2007

http://wwwa.azdot.gov/howtopedguide
Pedestrian Safety Action Plan
ADOT for State Highway System

http://wwwwa.azdot.gov/psap/
HSIP Funding Allocations

All Safety Issues

- 80% for statewide all public roads (state highway system, local and tribal roadways)
- 20% for local roadways through COGs and MPOs
- Average 8.9% of Statewide HSIP funding (FFY 2010-2012) involved one or more pedestrian safety improvement(s)
  - Countdown pedestrian signals
  - Pedestrian beacons
  - Sidewalks
  - Street lighting
Pedestrian Safety Review

Identification of Issues

- Pedestrians are considered in all safety evaluations
- Pedestrian safety issues are often identified through Road Safety Assessment (RSA)
  - State, local and tribal roadways
- Pedestrian-specific RSAs are also conducted
- ADOT PSAP is typically used as a reference
Pedestrian Safety Improvements

Examples

▪ Systemic improvements
  ▪ Countdown pedestrian signals

▪ Spot improvements
  ▪ Pedestrian Hybrid Beacon (PHB aka HAWK)
  ▪ Two-stage crosswalk
  ▪ High visibility crosswalk
  ▪ Rectangular Rapid Flash Beacon
  ▪ Street lighting
  ▪ Sidewalks
  ▪ Signing

▪ HSIP funding may be used for any of the above countermeasures if found eligible using data-driven process
Pedestrian Hybrid Beacons

Tucson and Phoenix
What is a pedestrian hybrid beacon?

A pedestrian hybrid beacon (PHB) is a device that assists pedestrians in crossing a street or highway at a marked but unsignalized crosswalk by warning and controlling vehicular traffic. A PHB can be used at a midblock crosswalk or at an intersection crosswalk. If used at an intersection, the device only controls the main-street vehicular and pedestrian traffic. It does not control side-street traffic, which should continue to STOP and proceed when it is safe to do so.

Additional information on the effectiveness of the pedestrian hybrid beacon can be found online at azdot.gov/phb.

For questions and comments, please call 1.855.712.8530.
**Why is ADOT installing pedestrian hybrid beacons?**

The Arizona Department of Transportation is installing a new traffic control device to help make crossing busy streets easier for pedestrians. This new device is called a pedestrian hybrid beacon (PHB).

Arizona faces many challenges in providing service for pedestrians wanting to cross busy, wide streets safely and efficiently. Some locations do not meet adequate spacing requirements for a standard traffic signal, and the amount of pedestrian or side-street traffic is usually not high enough to justify a signal. Before a PHB can be installed, it needs to be justified by a traffic-engineering study.

PHBs have been used by various agencies throughout the country to improve service for pedestrians. Several of these devices have been installed in the Tucson and Phoenix metro areas.

The PHB was first installed in Tucson to assist pedestrians crossing very busy streets. It is similar to traditional traffic-control devices, but it uses a different configuration.

---

### Pedestrian Hybrid Beacon Operation

<table>
<thead>
<tr>
<th>DRIVERS</th>
<th>PEDESTRIANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will See</td>
<td>Will Do</td>
</tr>
<tr>
<td>1</td>
<td>Proceed with caution.</td>
</tr>
<tr>
<td>2</td>
<td>Slow down. A pedestrian has activated the system.</td>
</tr>
<tr>
<td>3</td>
<td>Prepare to stop.</td>
</tr>
<tr>
<td>4</td>
<td>STOP. A pedestrian is in the crosswalk.</td>
</tr>
<tr>
<td>5</td>
<td>FLASHING</td>
</tr>
<tr>
<td>6</td>
<td>Proceed if the crosswalk is clear.</td>
</tr>
</tbody>
</table>

---

**Pedestrian Hybrid Beacon: Steps for Activation**

When there is no pedestrian waiting to cross, drivers will see that all indication lights are dark; the pedestrian will see a "DON'T WALK" symbol. A pedestrian who wants to cross the street will need to push the button to activate the system.

When a pedestrian pushes the button, approaching drivers will see a FLASHING YELLOW light for a few seconds, indicating that they should reduce speed and be prepared to stop for a pedestrian in the crosswalk. Pedestrians will continue to see a "DON'T WALK" symbol and should wait.

Drivers will see a STEADY YELLOW light, warning drivers the indication will soon turn to a STEADY RED light. Pedestrians will continue to see the "DON'T WALK" symbol and should continue to wait.

Drivers will see a STEADY RED light, which requires them to STOP at the stop line. At this point, the pedestrian receives a "WALK" symbol to cross.

As the pedestrian crosses the street, drivers will see ALTERNATING FLASHING RED lights, indicating that they need to stop. During this period, motorists are required to STOP or remain stopped until pedestrians have finished crossing the street. They may proceed with caution if the crosswalk is clear. Pedestrians will see a flashing countdown that indicates how much time they have to cross the street.

At the end of the flashing countdown, drivers will see that all indication lights are dark; the pedestrian will see a "DON'T WALK" symbol. Drivers may continue to proceed through the crosswalk if it is clear; pedestrians waiting to cross will have to push the button to activate the system.

---

Example of typical pedestrian signage used with pedestrian hybrid beacons

---

http://wwwa.azdot.gov/phb
Two-Stage Crosswalk
Phoenix
Rectangular Rapid Flash Beacon
Phoenix
HSIP Funding Eligibility

Steps Used

- Data-driven evaluation of safety issues and proposed improvements
  - Review crash data summary (e.g. pedestrian-involved crashes)
  - Identify potential issues involving pedestrians
  - Propose pedestrian safety improvements (e.g. engineering countermeasures) with documented effectiveness (e.g. CMF)
  - Benefit-Cost analysis
Summary

Lessons Learned

- Updated SHSP Draft includes pedestrian safety under Non-Motorized Users EA
- State and local agencies have pedestrian related plans/committees
- Several pedestrian safety improvements have been implemented statewide
- HSIP funding is being used in pedestrian safety improvements
Thank You!

Questions?

Comments?

For additional information, please contact:
Kohinoor Kar, ADOT Traffic Safety Section
kkar@azdot.gov

Michael Sanders, ADOT Bicycle/Pedestrian Coordinator
msanders@azdot.gov

Kelly LaRosa, FHWA Arizona Division Office
kelly.larosa@dot.gov
Promoting Pedestrian Safety in HSIP Delivery in California

David Cohen
FHWA California Division
Pedestrian Safety Story in California - Fatalities

From: Traffic Safety Facts, California-NHTSA, Offer Grembek, UC Berkeley
Pedestrian Safety Story in California - Injuries

From: Traffic Safety Facts, California-NHTSA, Offer Grembek, UC Berkeley
Strategic Response

1. The California Strategic Highway Safety Plan
   Dedicated SHSP Challenge Areas for Pedestrian and Bicycle Safety

2. Focus State / Focus Cities Initiative in California
   Cities of Los Angeles, San Francisco, San Diego and Stockton

3. The Highway Safety Improvement Program

4. The Active Transportation Program (includes the Transportation Alternatives Program in California)
HSIP for Pedestrian Safety

- **State (“capital”) Program**
  - 50% (on the SHS)
  - HSIP funds are rolled into Caltrans’ SHOPP, governed by a 10-year strategic plan
  - Continuous project initiation process based on TASAS database outputs
  - “010” and “015” Programs

- **Local Assistance Program**
  - 50% (off the SHS)
  - Project applications are governed by HSIP Cycles
  - Benefit / cost analysis based on UC Berkeley’s TIMS database (geocoded SWITRS data)
  - Programming is not subject to SB 45
Typical Projects

• Signage and signal improvements
• Sidewalk and pedestrian refuge areas
• Crosswalk improvements
• Speed management projects
• Road diets, traffic calming
• NHTSA/OTS: Non-infrastructure projects (PSAP development, data collection and analysis, risk communication / norm change workshops)
Hit at 40mph there's a 70% chance I'll die.
*Approximate figures

Hit at 30mph there's an 80% chance I'll live.

That's why it's SPEED LIMIT 30

nyDOT
Typical Partners

- Local, Regional and Tribal Governments
- California Office of Traffic Safety
- California Department of Public Health
- UC Berkeley: ITS Berkeley and SafeTREC
- California Highway Patrol
- California Department of Motor Vehicles
- Advocacy Groups
Typical Barriers

• Insufficient crash data
• Inability to account for crash potential
• Complexity of Federal-aid highway program requirements
• Purpose & Need not tailored to safety
• Inability to demonstrate a long-term vision
Emerging Trends Under MAP-21

• Systemic Safety Projects
• Strengthening connections between SHSP implementation and HSIP delivery
• Strengthening connections between SHSP and HSP
• HSM enhancements for pedestrian safety
• Active Transportation Program in California
Active Transportation Program
September 26, 2013

• Increase the proportion of trips accomplished by biking and walking,
• Increase safety and mobility for non-motorized users,
• Advance the active transportation efforts of regional agencies to achieve greenhouse gas reduction goals,
• Enhance public health,
• Ensure that disadvantaged communities fully share in the benefits of the program, and
• Provide a broad spectrum of projects to benefit many types of active transportation users.

• [link to program details](http://www.dot.ca.gov/hq/LocalPrograms/atp/)
• David Cohen
• Safety Specialist
• FHWA California Division
• David.Cohen@dot.gov
• 916-498-5868