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“Highway Fatalities: A National Health Crisis Highway Designers Can Help Turn Around”



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American Association of State Highway and
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AASHTO Subcommittee on Design Annual Meeting
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Safety Trends

- 2005 deaths up by 436 over 2004 to 42,636
- Motorcycle fatalities up again, 8% over 2004, to 4,315
- Fatality rate up –now 1.46 per 100 MVMT
- Alcohol related fatalities up
- Auto fatalities down
- Trucks fatalities up
- Pedestrians fatalities up



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Safety Trends (cont'd)

- By 2030, there will be 70 million in the US over 65 years old compared to 50 million today
- By 2050 the Hispanic population may increase 2 ^{1/2} times to about 24-27% of the total.
- Asian population may double to about 13% of total
- African American percent to remain stable
- Non-Hispanic white share to drop significantly



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Safety Trends (cont'd)

- Traffic deaths among Hispanics account for 5% of their deaths compared to 1.6-2.5 % for White, Black and Asian groups
- Asians have the highest belt and motorcycle helmet use
- African American children killed disproportionately in urban and rural areas



State Strategic Highway Safety Plans

- Due by Oct 2006
- To cover all 4 million miles of roads
 - State DOTs on average own 19%; over 10,000 fatalities per year on non-state rural roads
- Must cover all the “E’s”—Engineering, education, enforcement, emergency medical services



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State Strategic Highway Safety Plans (cont'd)

- Data, data, data
- Evaluation of countermeasures
- Identify 5% of worst roads & improvement actions
- Identify High Risk Rural Roads



State Strategic Highway Safety Plans (cont'd)

- FHWA focus: Lane departure, intersections, pedestrian/bicycles, partnerships
- NHTSA focus: Impaired Driving; Seat Belts; Vehicles
- GHSA: behavioral side; current priority: speed management
- IACP: safe designs; enforcement “space”



AASHTO's Role in Safety

- Safety Leadership---AASHTO Strategic Plan; two CEO Safety Leadership Forums-in 2003 and 2005; State Highway Safety Alliance—AASHTO/GHSA/IACP/CVSA/AAMVA
- Safety Policy ---Federal laws, Regs, R&D ,etc.
- Safety Committees



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AASHTO's Role in Safety (cont'd)

- Safety and safety-related guides, chapters, etc.
- Safety technology transfer, e.g. NCHRP Series 500, Safe Routes to School



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Safety Products in Development

- AASHTOWare---Safety Management System (formerly TSIMS)
- Highway Safety Manual---2008—SCOH-TE and SCOH-Design; and SCOHTS-Safety Management (presentation tomorrow)



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Safety Related Guides

- Green Book – 2008
- CSS Flexibility Guide – 2004
- MUTCD – 2008
- Roadside Design Guide – 2009
- Bicycle Guide – 2010 after NCHRP Study
- Pedestrian Guide – 2004



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Safety Related Guides (cont'd)

- Roadway Lighting Design Guide – 2005
- Update to NCHRP Report 350; AASHTO Publication for the first time – 2008
- AASHTO-AGC-ARTBA guides on bridge rail systems, highway barrier rail hardware, and small sign support – 2006 and 2007
- Highway Safety Design and Operation Guide – 1997 (??)



Suggestions from SCOHTS Members

- **Centerline rumble strips** as a standard on all “3R” projects as appropriate
- **Shoulder rumble strips** standard detail on all freeways with 4 foot and wider shoulder (bicycle concern)
- **Promote edge line rumble strips** on all two-lane highways at appropriate locations (bicycle concern)



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Suggestions from SCOHTS Members (cont'd)

- Consider **roundabouts** as appropriate when assessing the need for a signalized intersection or the reconstruction of a signalized intersection
- **Construction work-zones** must focus strongly on safety in order to maintain mobility
- **Fixed objects:** poles, trees, abutments, blunt-end barriers, etc, require attention



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Suggestions from SCOHTS Members (cont'd)

- **Safety audits** as a standard step in the design process
- Include **public safety community** in design reviews---enforcement and incident response considerations
- **Corridor reviews** are key and system-wide solutions important



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Suggestions from SCOHTS Members (cont'd)

- Provide safety data analysis and traffic engineering/design **assistance to local governments**
- Driver behavioral changes are key: **designs to force behavior**: lane tapering; striping variations; speed setting; roundabouts; etc.



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Challenges for the Future

- A vision for safety-----“ZERO DEATHS”; metrics that work; accountability of the “problem”
- Resources for roads in general and for safety: all the “E’s”
- Future Interstate Highway System Vision and funding; future federal role for other roadways and for safety



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Challenges for the Future (cont'd)

- **Enforcement**---laws, enforcement, adjudication: the silver bullet for the United States
- **Safety focus on all roads**----support to counties, municipalities, townships
- **Elevating safety** to an equal footing with mobility and emphasize the synergy between the goals

