



Speed Limit Setting

RROMAC

July 9, 2020

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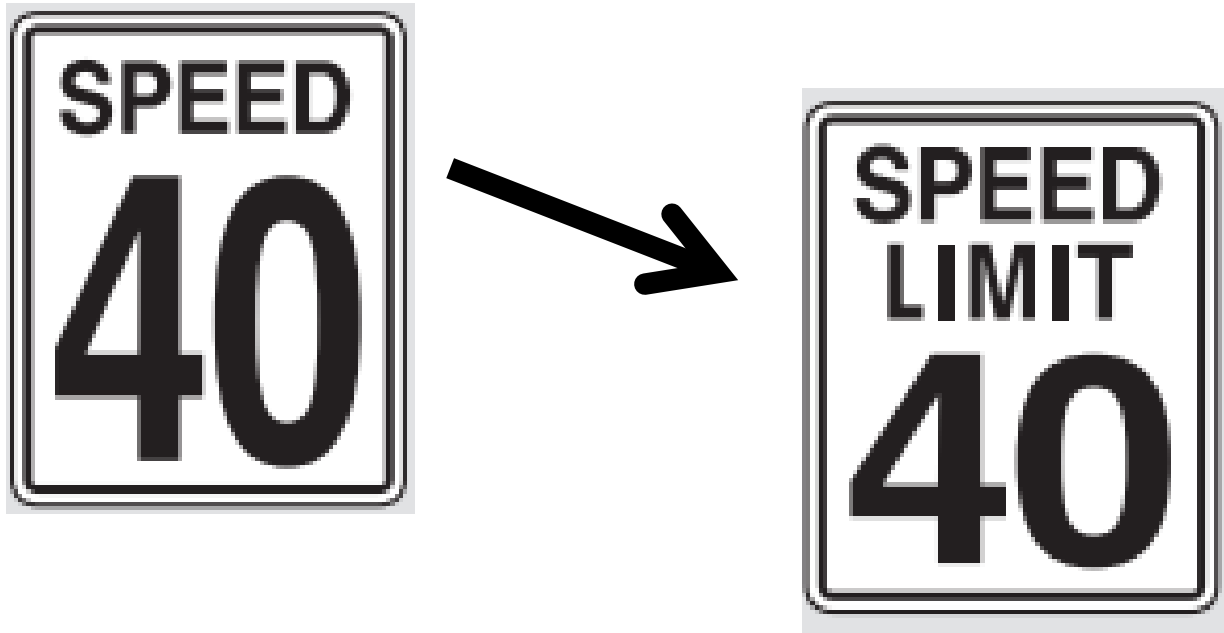


Outline

- Background
- Overview
- Authority
- New Methodology
- Compliance
- Questions & Discussion

Speed vs Speed Limit

- Legislation change (SB 558 – 2019)





Purpose of Speed Limits

- Inform motorists of the appropriate driving speed under favorable conditions
- Provides the legal basis for adjudication and fines for violations

(Derived from consistent and objective methods)

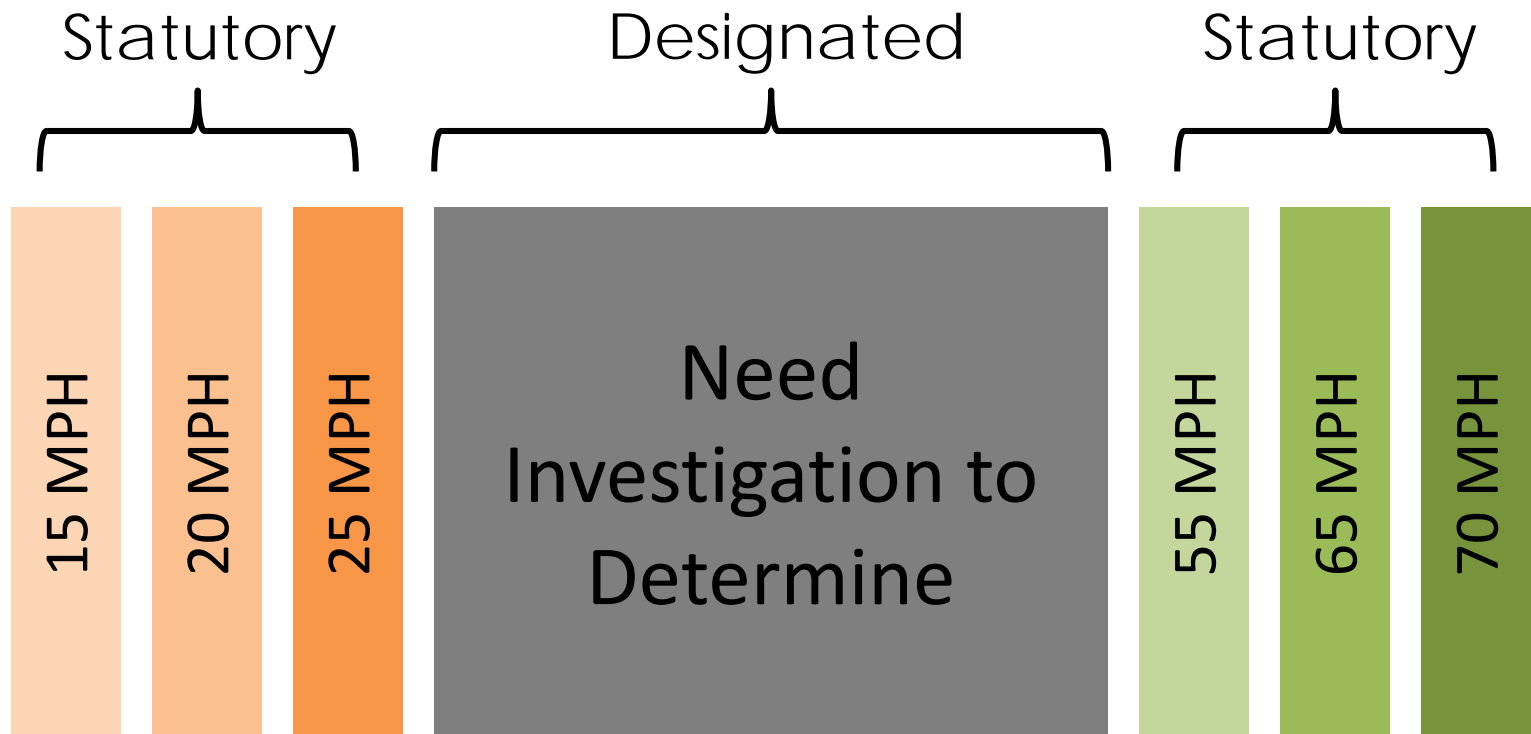


Speed Zoning Principles

- Not to be used for spot hazard mitigation
- Not a substitute for enforcement
- Not a substitute for speed management

Types of Speed Limits

- Statutory
- Designated (Engineering Study)



Statutory Speeds - low



- **15 MPH** – alleys, narrow residential roadways



- **20 MPH** – business districts, school zones, some residential



- **25 MPH** – residential districts, public parks, ocean shores

Statutory Speeds - high



- **55 MPH** – most open rural highways, trucks on some interstate highways



- **60 MPH** – trucks on some open rural highways, (OAR designates trucks on most interstates)



- **65 MPH** – passenger vehicles, light trucks, motor homes and light duty commercial vehicles on most interstate highways; some open rural highways; trucks on some interstate and open rural highways



- **70 MPH** - passenger vehicles, light trucks, motor homes and light duty commercial vehicles on some interstates and open rural highways



Designated Speeds

- Established by a road authority when statutory speeds may not be reasonable or applicable.
- Statutes give ODOT the authority to establish almost all designated speeds



Basic Rule

- Motorists must drive at a speed that is reasonable and prudent
 - considering other traffic, road and weather conditions, dangers at intersections and any other conditions that affect safety and speed
- Drivers are expected to use good judgment in selecting their speed.
- The Basic Speed Rule does not allow a driver to exceed the posted speed.

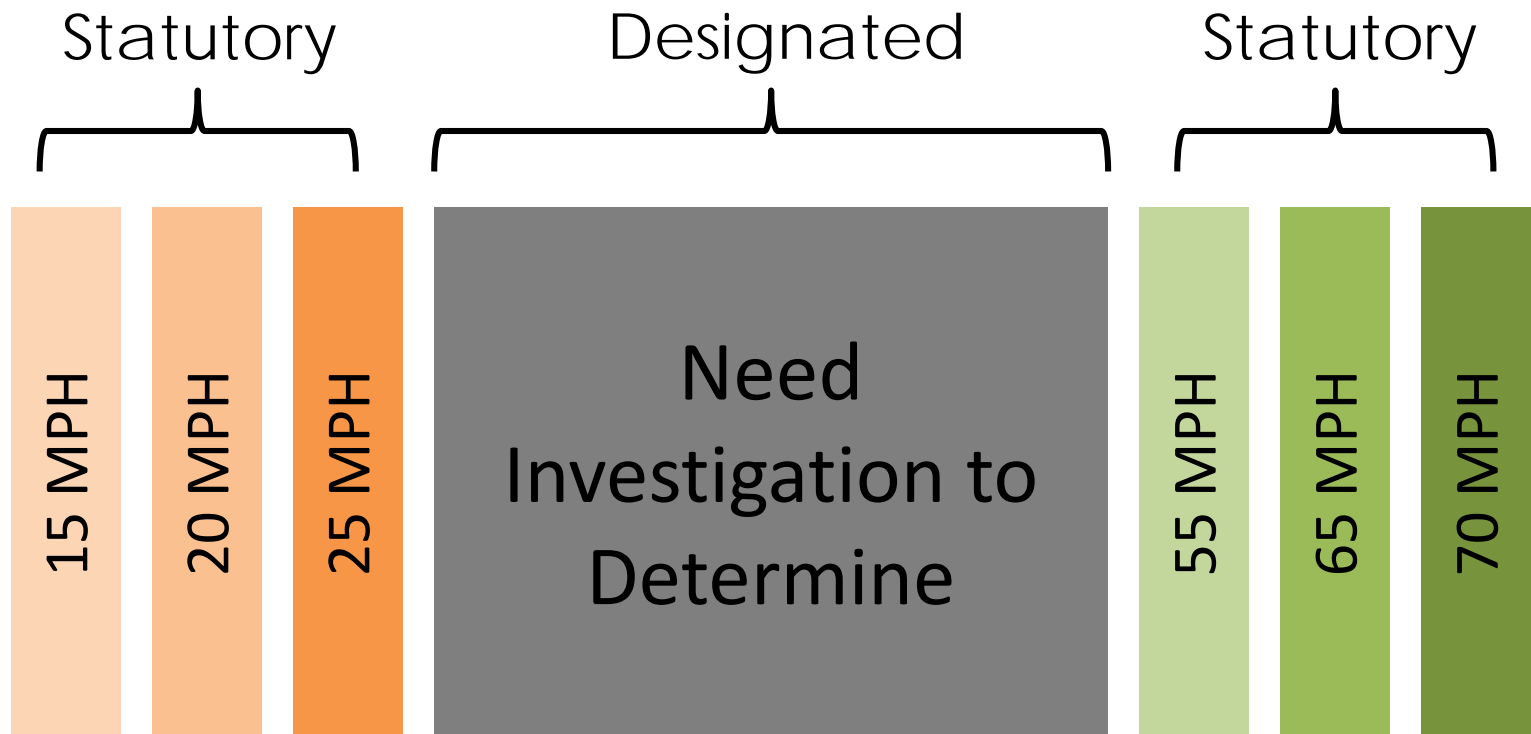


Speed Setting Authority

- ORS 810.180 (1993)
- ODOT is the primary authority to designate speeds that may be different than the statutory speeds
- This authority applies to all public roadways in Oregon

Types of Speed Limits

- Statutory
- Designated (Engineering Study)



County Authority

- Statutory Speeds (by ORS)
- Speed Zone investigations (delegated)
- Low volume, paved roads (by request -delegated)
- Emergency (by ORS)
- Construction (by ORS)
- Temporary (by ORS)
 - New/rebuilt roads



Science of speed setting

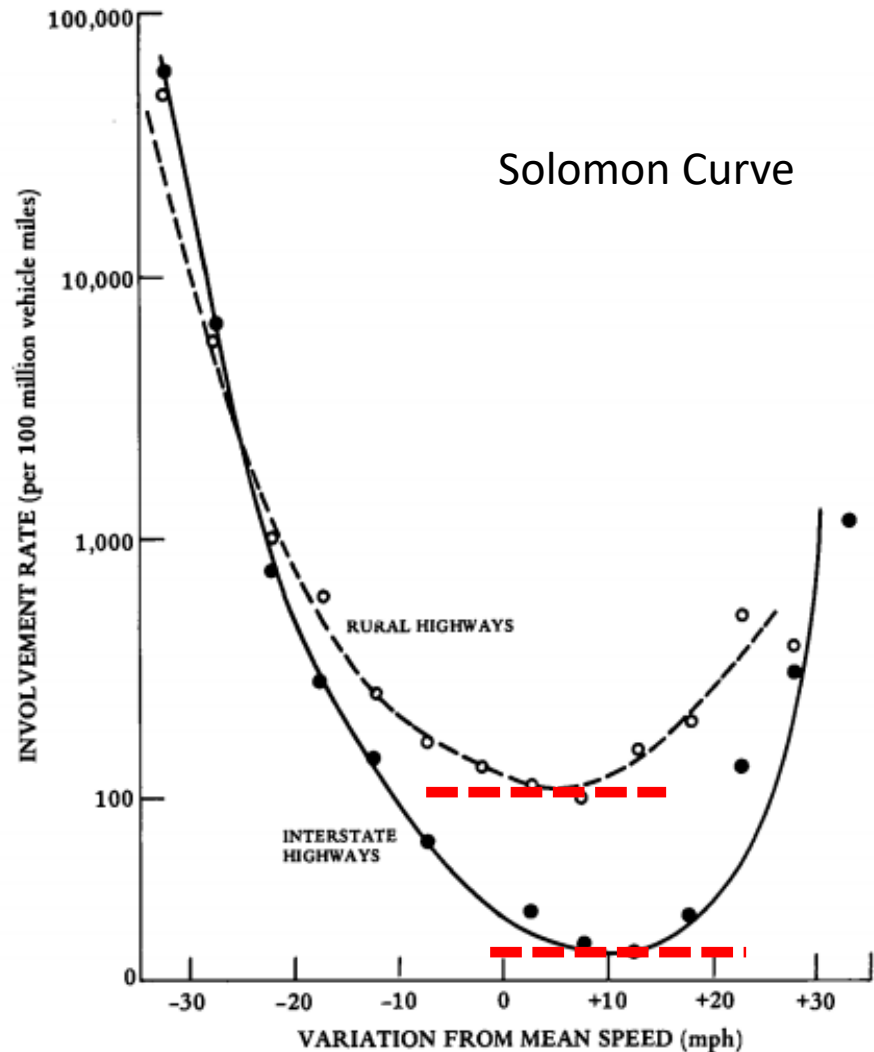
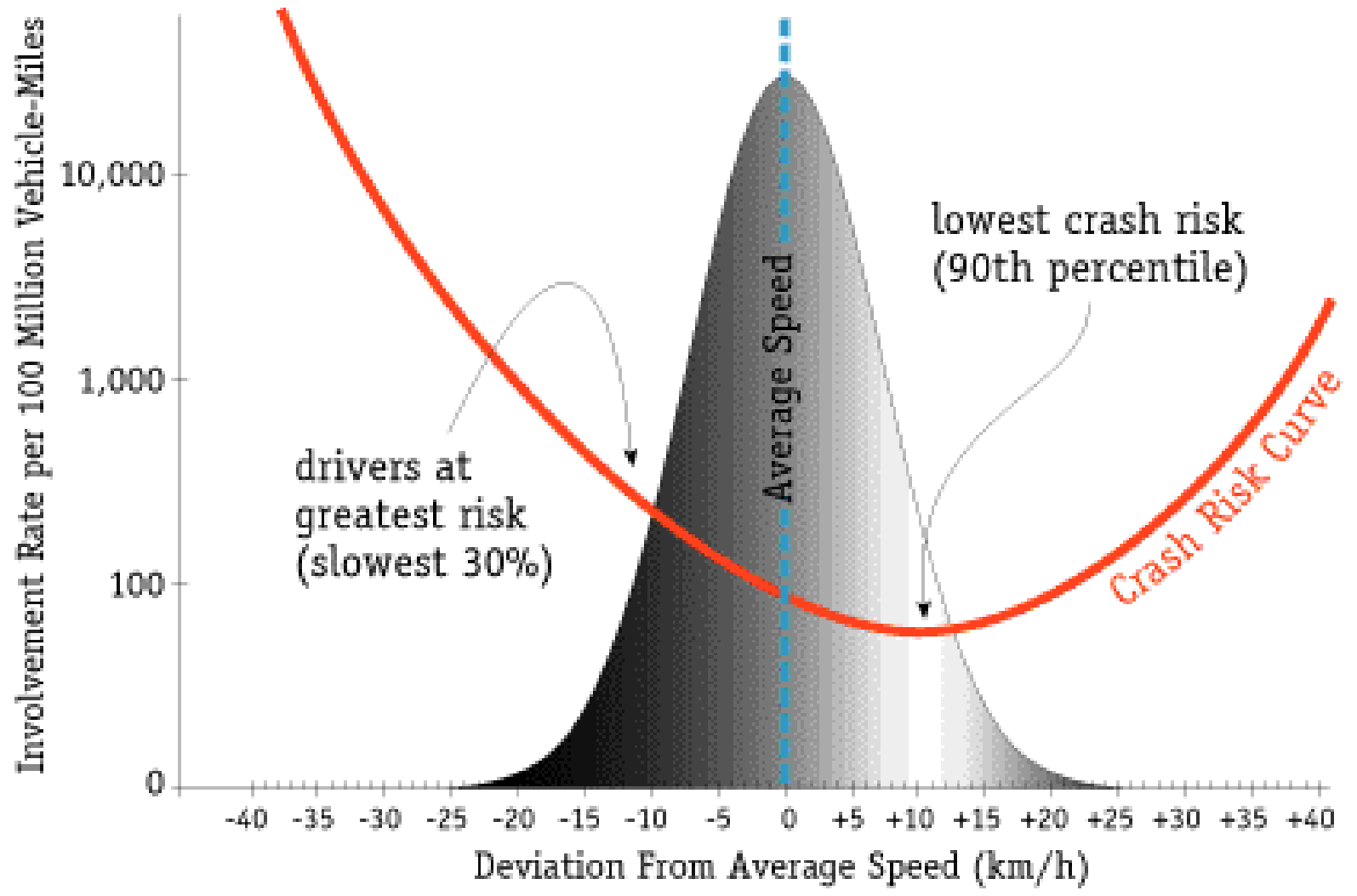


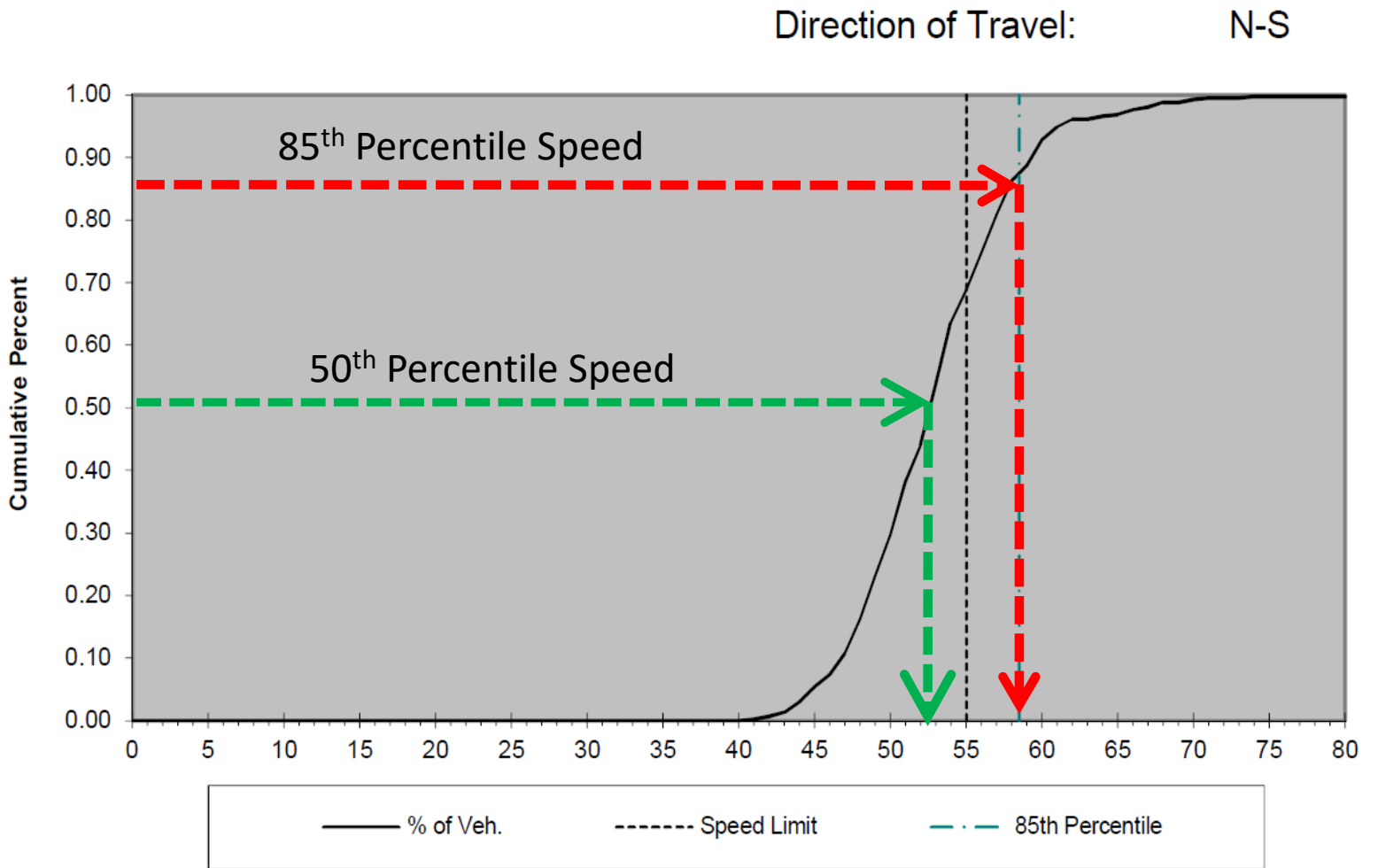
FIGURE 12 Accident involvement rate by variation from mean speed (10).



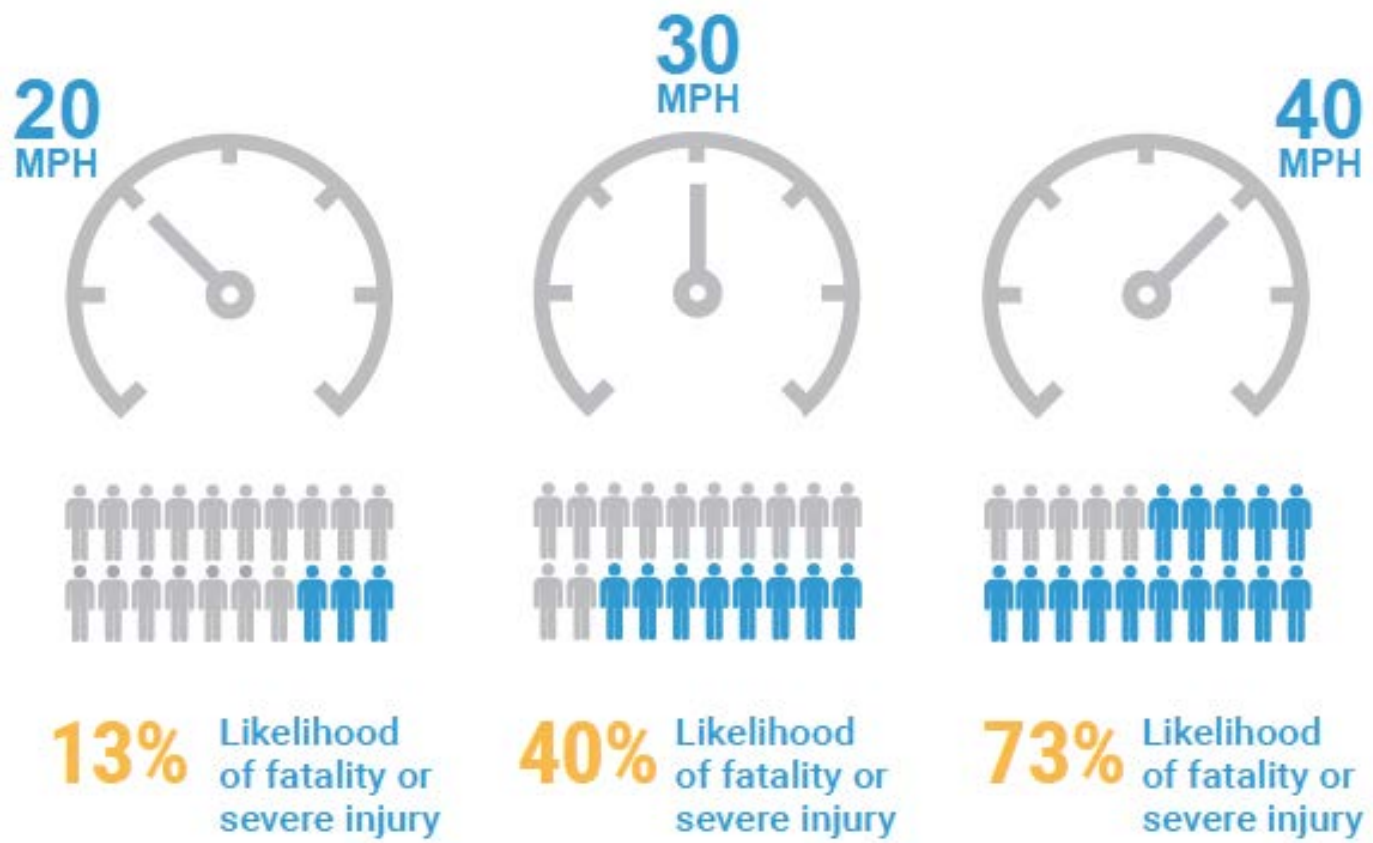
Science of speed setting



Science of speed setting



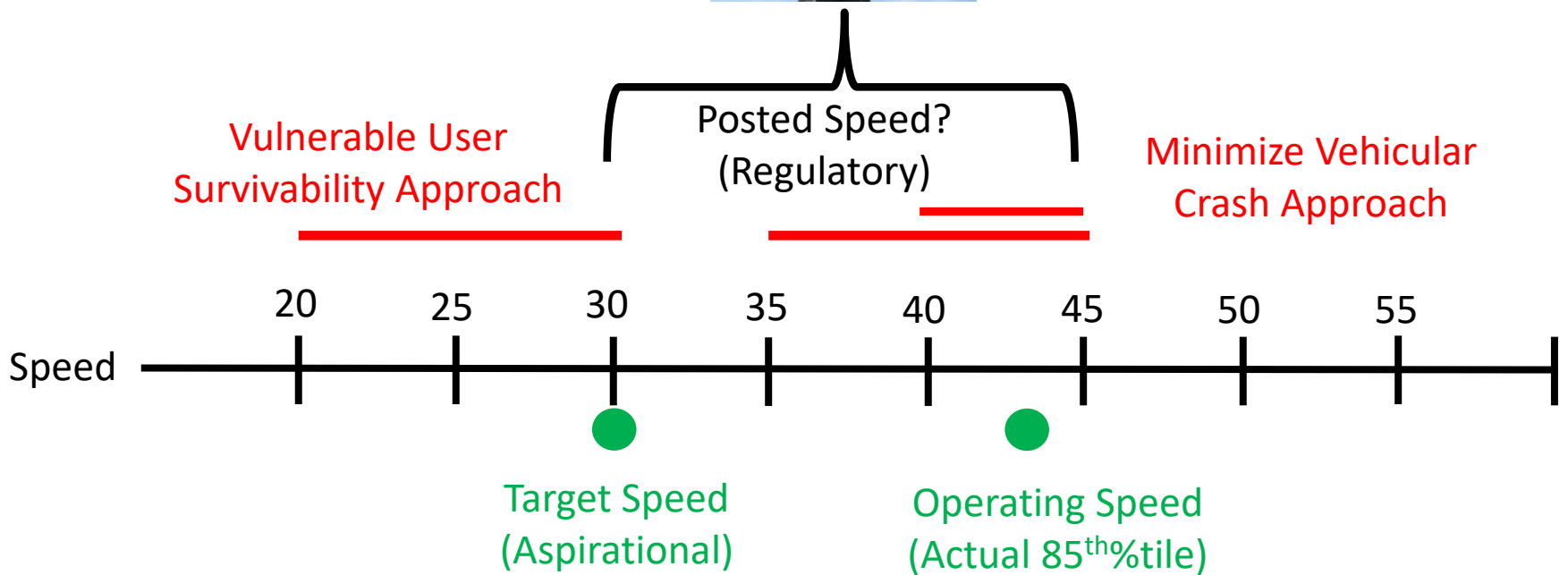
Science of speed setting



Source: *Impact Speed and a Pedestrian's Risk of Severe Injury or Death*, Brian Tefft, AAA Foundation for Traffic Safety, 2011



Speed Zone Dilemma



Built Environment

Current Research

- Research work and Surveys:
 - NCHRP 17-76:
 - Guidelines for Setting Speed Limits (research project)
 - NTSB Report on speed
 - TTI and AAA Survey
 - NCHRP Report 855:
 - Expanded Functional Classifications for Roads

NCHRP 855 - Context

Land use



NCHRP 855 – Road User Priority

Context → Roadway ↓	Rural	Rural Town	Suburban	Urban	Urban Core
Principal Arterial					
Minor Arterial					
Collector					
Local					

User Priority:

High



Medium



Low



NCHRP 855 – Target Speeds

Context → Roadway ↓	Rural	Rural Town	Suburban	Urban	Urban Core
Principal Arterial	High	Medium to Low	High to Medium	Medium to Low	Low
Minor Arterial	High	Medium to Low	Medium	Medium to Low	Low
Collector	Medium	Low	Medium	Low	Low
Local	Medium	Low	Low	Low	Low

Target Speed:

Low < 30 mph

Medium 30—45 mph

High > 45 mph





Research Summary

- The use of 85th percentile is different for rural roads than for urban roads
 - More flexibility on urban roads
- Rural type roadways / Freeways
 - Recommend speed within 5 MPH of the 85th percentile speed
- Developed areas
 - Consideration given to recommending speeds within 5 MPH of the 50th percentile speed

Updated Speed Setting Methods

- ODOT using a more context based approach for setting speeds
 - NCHRP 855 (Context)
 - NCHRP 17-76 (Speed Setting Guidance)
- Blend engineering (85th percentile) and Risk (vulnerable users)
- Add flexibility to the current system, especially in urban areas

New Process - Inside City Limits

Context >	Urban Core/CBD	Urban Mix	Suburban Commercial and Residential	Suburban Fringe
Roadway Class				
Arterial	20-25 Low	25-30 Med Low	30-35 Med High	35-45 High
Collector	20-25 Low	25-30 Med Low	25-35 Med	30-40 Med High
Local	20-25 Low	20-25 Low	25-35 Med	25-35 Med

50th% Speed used if:

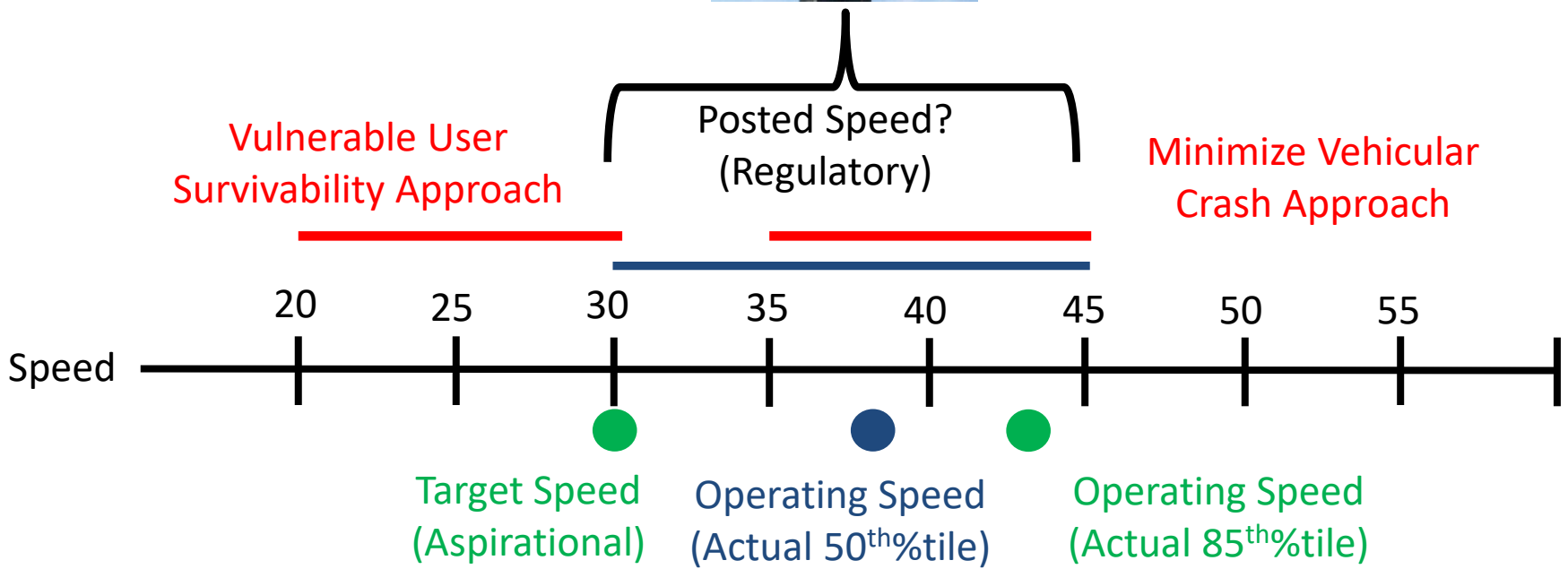
- 50th percentile is more than 35 mph
- Context is inconsistent
- Limited Access Facility

Speed can vary 10 mph below 50th if:

- Average Crash rate exceeds 1.5 times average
- More than one Fatal or Serious Injury in the last 3 years
- Meets definition of residence district



Speed Zone Dilemma



Built Environment (City Limits)



New Process - Outside City Limits

Roadway	Rural Highways	Rural Communities
State Highways	85 th percentile +/-5 mph	50 th percentile +/-10 mph
Non-state Arterials	85 th percentile +/-5 mph	50 th percentile +/-10 mph
Non-State collectors or locals	50 th percentile +/-5 mph	50 th percentile +/-10 mph

Rural Highways - speed can go 10 mph below 85th if:

- Average Crash rate exceeds 1.5 times average
- More than one Fatal or Serious Injury in the last 3 years
- Limited sight distance crashes

Speeds can vary 10 mph below 50th if:

- Continuous to business or residence district
- DLDC Unincorporated Community
- Urban character

Change Summary

- Oregon's speed law changes are in alignment with national research
- Still requires an engineering study be completed
 - All studies require speeds, crash data and roadway data
- Context based or 50th percentile speeds in urban areas with greater range flexibility
- 85th percentile speeds will still be used on rural high speed roadways and limited access hwy's
 - Only 15% of the drivers are exceeding this speed
- Still have special provisions for lowering speeds if there is a higher than usual crash history



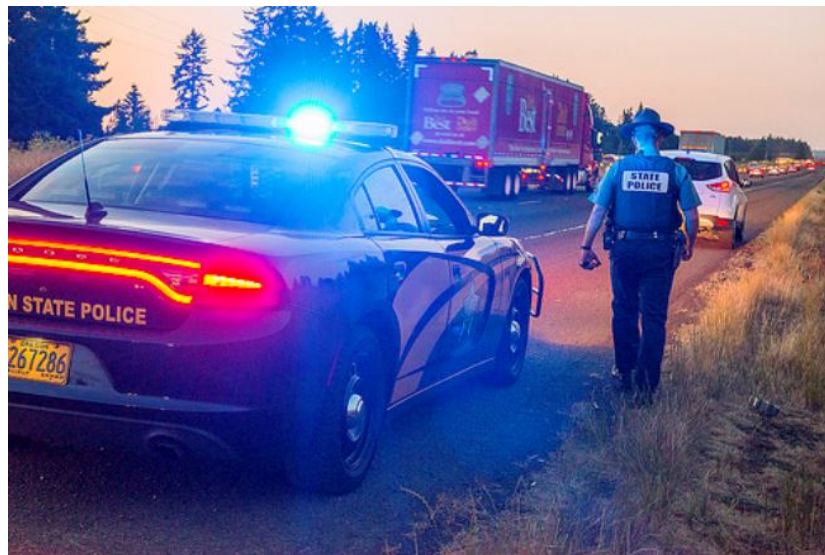


Speed Zone Request Process

- Local Jurisdiction then ODOT
 - State Hwy, outside of a city, then the public can request directly
- 4 to 6 months for an investigation
 - Investigations halted during the early part of the pandemic.
- Speed Zone Review Panel
 - Review contested cases

Speed Compliance

- Design
- Enforcement
- Congestion





Related Items

- Gravel Road speed limits
 - Discouraged but allowed by ODOT
 - Crash history, enforcement, maintenance
- Rural, Local Road posted speeds
 - Normally the County doesn't request to post
 - Considerations for cut-through, agritourism, special cases
- Road Standards
 - Update in process
 - Trend towards slower and narrower
- Next Steps

Questions and Discussion

If you have questions about speed zoning, please contact:

Oregon Department of Transportation
State Traffic Engineer
4040 Fairview Industrial Drive SE
Salem, OR 97302-1142

Phone: (503) 986-3568
Fax: (503) 986-3749

Or visit our Web site at:

www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/speed_zone_program.shtml

