Increasing safety through traffic enforcement
Program Goals

• Discuss the rules of the road.

• Provide data showing the importance of enforcement to reduce injuries and deaths.
Program Notes

- Not an all-encompassing course about all bicycle/motorist traffic laws.
- Focuses on the most important rules: those relating to vehicle operation and safety
- Emphasizes the need for equitable bicyclist and motorist enforcement
A nation of travelers with new opportunities to walk or ride a bicycle as part of their everyday life.

“help law enforcement officers enforce bicycle-safety traffic laws aimed at bicyclists and motorists.”

“A nation of travelers with new opportunities to walk or ride a bicycle as part of their everyday life.”
Comprehensive Bicycle Planning

• **Engineering** of roads and paths

• **Education** of bicyclists and motorists

• **Encouragement** of bicyclists’ rights and responsibilities, and of safe and lawful bicycling

• and **Enforcement**
Section Two: Crash Data and Statistics

84 million bicyclists in the country

• 37% under age 16
• Many infrequent riders
• Most ride for recreation or fitness
• Also - commuters, touring, utilitarian, package delivery

Section Three: Traffic Laws

Bicyclists Follow the Same Traffic Laws as Other Vehicles

SAME ROADS
SAME RULES
SAME RIGHTS
Do Motorists Respect Bicyclists?

- Do motorists understand cyclists’ rights and respect them?
- Are traffic laws regularly enforced when it comes to bicycle safety?
Do Bicyclists Act Like Drivers of Vehicles?

- Do bicyclists know how to drive on the road and respect other road users?
- Are traffic laws regularly enforced for bicyclists?
Section Five: Enforcement

Why be Aware of Bicyclists?
Why Enforce the Traffic Laws?

• All road users should be respectful of others’ rights.
• Many people are unaware of the law.
• Most bicycle crashes are caused by unlawful behavior.
Section Six: Crash Investigation

• Determine the cause of the crash
• Help prevent future crashes
Remember These Points!

Key Violations: Cyclists

- Operating against the flow of traffic
- Failure to yield when entering roadway or at a stop or yield sign
- Failure to obey traffic signals
- Failure to yield when moving across the road or turning left
- Riding at night without required equipment
- Riding on sidewalk unsafely or where prohibited
Remember These Points!

Key Violations: Motorists

• Failure to yield
  – when entering roadway
  – at a stop or yield sign
  – when turning left

• Unsafe passing

• Improper right turn (immediately in front of a cyclist)

• Driving too fast for conditions

• Opening a car door into traffic
Be Aware of Bicyclists

• Observe how cyclists and motorists behave

• Are both bicyclists and motorists respecting all road users, including pedestrians?
Increasing safety through traffic enforcement
The Bicyclist Injury Problem in the U.S.

- 500,000 emergency room visits,
  10% involve motor vehicles
- 25,000 hospitalizations,
  30% involve motor vehicles
- 700 fatalities,

80% involve motor vehicles

Emergency Dept Data Source: CDC, WISQARS,
Crashes per Million Miles


Cyclists educated about safety crash less
Motor Vehicle-Bike Collision, Bicyclist Under 16

Car-Bike Collisions by Type, Bicyclist 15 or younger, 1998-2002 average

- Bicyclist on correct side of road in daylight, no motorist error: 7%
- Motorist overtaking, daylight: 4%
- Dark, dusk, or dawn & bicyclist on correct side of road: 7%
- Motorist failed to yield, daylight: 13%
- Bicyclist failed to yield, daylight: 48%
- Bicyclist on road, wrong way: 8%
- Bicyclist riding on sidewalk: 10%
- Parking lot & other: 3%

Motor Vehicle-Bike Collision, Bicyclist 16 or Older

Car-Bike Collisions by Type, Bicyclist 16 or older, 1998-2002 average

- Motorist failed to yield, daylight: 23%
- Bicyclist on road wrong way: 13%
- Bicyclist on the correct side of the road, dark, dusk, or dawn: 13%
- Bicyclist failed to yield, daylight: 25%
- Bicyclist on the correct side of the road in daylight, no motorist error: 7%
- Motorist overtaking in daylight: 6%
- Parking lot and other: 3%

Most Frequent Fatal Crashes

- Intersections  
  - Motorist or Cyclist failure to yield
- Intoxication
- Cyclist driving the wrong way
- Cycling driving at night without proper lights and reflectors
Motorist Failed to Yield to Cyclist, Daylight

- Entering rd from driveway, intersection or pkg place
- Turning left
- Turning right (turned while overtaken)
- Did not yield at intersection
- Turned too wide or cut corner

Subtotal

15 and Under 16 and Over
Motorist Overtaking, Daylight

- Misjudges passing space
- Motorist loses control of vehicle
- Bicyclists undetected
- Other
- Subtotal

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Cyclist entering roadway or riding with traffic and did not yield

- Entering at driveway
- Entering from mid-block
- Entering at stop sign
- Moving left across road
- Failed to yield when turning left
- At intersection, details unknown
- Other

Subtotal is 46%
Cyclist was in the roadway riding against traffic

![Bar chart showing accident types and age groups]

- Hit head-on
- Hit by car entering road
- Hit by car turning left or right
- Hit by car turning right
- Hit by car turning left
- At an intersection, no details
- Other

Subtotal

15 and Under
16 and Over
Cyclist was riding on a crosswalk or sidewalk

- Hit by car entering road
- Car turning across sidewalk
- Rides out from sidewalk into roadway
- Rides out from street into roadway
- Details unknown

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Night Time

- 43% of all bicycle fatalities are in non-daylight hours.
- 17% of all car-bike collisions happen at night.

The Need for Improved Data

- All the tables in the above slides add up to 89% of all motor vehicle-bicycle crashes.
- The circumstances of 11% of all motor vehicle-bicycle collisions remain unknown.
- Improved crash reporting and investigation can counteract this trend.

Increasing safety through traffic enforcement
Bicyclists are Drivers

- The same set of traffic rules applies to all drivers of vehicles — bicyclists and motorists.
- When we say “driver” we mean bicyclist or motorist; when we say “vehicle” we mean bicycle or motor vehicle.
You Already Know Most Traffic Laws that Concern Bicyclists!

All drivers of vehicles must:

• Drive on the right side of the roadway
• Pass other traffic slowly and safely
• Yield to traffic with the right of way
• Observe traffic signs and signals
• Obey speed limits
• Et cetera!
1. Bicycle Law

- What is the legal definition of “bicycle?”
- What section of the law covers bicycle-specific traffic laws?
2. Same Roads

- On which roads can bicycles be legally excluded?
3. Direction, Lane Positioning and Merging

- Where should a bicyclist be positioned for normal travel?
- What is the law for staying to the right side of the right lane?
- What are the legal reasons that a bicyclist should be expected to leave the right side of the right lane?

4. Turning

• Where should a bicyclist be positioned for:
  – Right turns
  – Left turns
  – Continuing straight ahead?
5. Signaling

• Bicycles have no automatic turn signals; cyclists use hand signals.
• Right hand, right turn signal is best understood.
• Continuous signaling is not safe. Both hands are often needed to control the vehicle.
6. Safe Passing on the Left

• What are the rules for motorists passing other vehicles, including bicycles?
7. Safe Passing on the Right

• Under what circumstances are bicyclists permitted to pass on the right?
8. Sidewalk Bicycling

• Are bicyclists permitted to drive on the sidewalk?

• What are the rules for bicycles driving on sidewalks, paths, and trails?

10% of bicycle-motor vehicle crashes happen to bicyclists driving on sidewalks, paths, or in crosswalks
9. Lights at Night and Equipment

• What are the requirements for nighttime equipment for bicyclists?

• What are the braking and other equipment requirements?

43% of fatal bicycle-motor vehicle crashes occur at night, most of them probably involve bicyclists without proper lighting equipment.
10. Helmets

• Are children required to wear helmets while on a bicycle?

0% of crashes are caused by lack of a helmet.

About 75% of permanent disabilities and 50% of fatalities may have been avoided with proper helmet use.

www.pedbikeimages.org / Dan Burden
11. DUI

- Motor vehicle operators are prohibited from operating their vehicles while intoxicated.

- Are bicyclists also prohibited from operating their vehicles while intoxicated?

31% of fatal bicycle-motor vehicle crashes involve intoxication.
12. Aggressive Driving & Assault

- What are the laws regarding the use of a motor vehicle as a weapon, either intentionally or unintentionally?
- Are there special Aggressive Driving laws?
Other Bicycle Safety Laws: Local Ordinances

• In most states, local governments may:
  – establish bicycle registration
  – regulate sidewalk bicycling

• Generally, local ordinances may not contradict or supersede state law.

• Bicycle messenger registration
Other Bicycle Safety Laws: Manner of Riding

• No more riders than the bicycle is designed to carry.
• At least one hand on the handlebar.
• Carry articles safely
• Laws vary by state.
• Enforcing them might help prevent falls - the most frequent type of crash.
Other Bicycle Safety Laws

Equipment & Racing Permits

- Bells
- Bike racing
Increasing safety through traffic enforcement
Same Roads: Bike Path / Road Intersections
Same Roads: Mandatory Sidepath Rule

“Whenever a path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and not the roadway.”

- The sidepath rule should be discouraged
Same Roads: Bicycle Lanes

- *bicycle lane* - a portion of the *roadway* indicated by pavement markings
- A bicycle lane does not prevent bicyclists from:
  - avoiding hazards
  - overtaking
  - left turns
Drive with Traffic: Wrong Way Riders

Graphics compliments of Oregon DOT
Bicyclist’s Manual
Lane Positioning: Far Right Rule

• “Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable exercising due care when passing a standing vehicle or one proceeding in the same direction.”

• Unnecessary because of slow vehicles keep to right rule.

• Added to Uniform Vehicle Code in 1944 and since adopted by 41 states. But UVC now lists many exceptions, as do most states.

• Does not supersede rules on intersection positioning and passing, and permits bicyclists to be a safe distance from hazards at the right edge, including car doors.
Lane Positioning: The Door Zone

Enough Room

Too Close
Lane Positioning: Narrow Lanes
Lane Positioning: Impeding Traffic

- Impeding traffic rule: may apply to motor vehicles only.
- Does not prohibit use of roadway at bicycle speeds.
- Mountain roads: use turnout where there is a line of vehicles.
Lane Positioning: Bicycling Side by Side

• “Move right when being overtaken” means bicyclists must single up if they are side-by-side.
• Single-file bicycling.
• Side-by-side bicycling facilitates communication: for directions, training, etc.
Lane Positioning: Group Riding

Side-by-side bicyclists are compact and easier to pass.

Single-file bicyclists take up more space over a longer distance.
Intersections:
Failed to Yield When Turning
Intersections:
Entering the Roadway
Merging, Turning, and Signaling

Moving across the road:
• Yield, even when moving less than a full lane.
• Yield requires looking back.
• Yielding without signaling can be safe; signaling without yielding never is.
Merging, Turning, and Signaling

Graphics compliments of Oregon DOT
Bicyclist's Manual
• Turn lanes may only be used for the directions indicated.
• Bicyclists may need to merge left to avoid a right turn only lane.

Passing: On the Left and Right

- Pass on the left at a safe distance
- Do not use the left side of the road to pass if you can’t see far enough ahead
- Move right when being passed, if it is safe to do so
- Pass on the right
  - when driver ahead is intending to turn left
  - when there is enough room and it is safe
Passing on the Right
Passing: Lane changes

www.pedbikeimages.org / Dan Burden
Unsafe passing
Sidewalk Bicycling
Lights at Night:
Reflectors and Rear Lights
Lights at Night: Headlight v. Front Reflectors

Aggressive Driving and Harassment

- Verbal
- Assault
  - With vehicle
  - Thrown object
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Why Enforce the Traffic Law?

• Prevent Crashes
• Help traffic flow better
• Educate drivers who may be confused
Excuses for not enforcing bicycle/motor vehicle infractions

• "There are more important things to do."
• "Bicyclists should not be punished with a fine, especially children."
• "It is impossible to change road users' behavior."
• "Bicyclists are only endangering themselves when they violate traffic laws."
• "The courts will throw the tickets out."
Replies

• Injury and death prevention is very important work.
• How is this less important than enforcing expired tabs or issuing a parking ticket?
• If officers don't enforce the law, who will?
• Warnings can be sufficient, especially for children.
• Without enforcement, dangerous drivers will only get worse.
More Replies

• Would you rather report a traffic ticket or a death?

• Unlawful bicyclists are a danger to other bicyclists, pedestrians, themselves, and even motorists.

• The courts and the public can be convinced of the need for enforcement if the community understands the danger.
Key Violations: Cyclists

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• Opening a car door into traffic
Increasing safety through traffic enforcement

CALL
9-1-1
Bicycle “Crash” Defined

“An event in which a bicyclist hits another object of falls off the bicycle.”

Note: a collision usually leads to a fall also.
Crashes are not accidents

Accident implies heavy doses of chance, unknown causes, and the implication that “nothing could be done to prevent them.” Crashes are unintentional, but avoidable.
The Crash Report: General Information

• Give equal credence to the statements of cyclists, motorists, and witnesses
• Injuries and damage
• Any suspected traffic violations
• Driver impairments?
• Location of collision and/or final resting places of all objects and individuals
Roadway and Environmental Conditions

- Lighting: sun, glare, nighttime
- Weather conditions (wind direction and strength)
- Pavement condition
- Any physical or visual obstructions?
- Road and lane widths
- Type of facility adjacent to road (e.g. sand, paved sidewalk, car parking area, etc.)
- Roadway markings
- Traffic signs and signals (and condition)
- Any skid marks on pavement?
The Bicycle and Cyclist

• Same as other vehicle reporting
• What was the cyclist doing with respect to the traffic law
  • On the sidewalk or road?
  • With or against traffic?
  • Yielding at an intersection?
  • Entering the roadway?
• Advise cyclists to save all clothing and equipment involved in the crash, and to document injuries.

• Note type of bicycle (Mountain, road, commuter, loaded touring, recumbent, kids, etc.)

• Note type and condition of brakes and tires, chain, wheels, and gear selection.
The Bicycle and Cyclist

• Safety equipment — usage and condition: lights, helmet, sunglasses, reflectors, etc.
• Cycle computer information (may include recent speeds)
• Consult a bicycle mechanic for expert analysis
• Cyclists are required to report crashes involving personal injury or property damage
The Motorist and Automobile

Just like any other crash. For the sake of review:

• Condition/usage of safety equipment: lights, brakes, tires, mirrors, windows, windshield wipers

• What was the motorist doing with respect to the traffic law?

• Is the motorist aware of traffic rules?
The Motorist and Automobile

• Analyze a motorist’s claim not to have seen the cyclist (was cyclist in full view?)
• If belligerent or otherwise impaired, do not allow to continue driving vehicle
• Motorists are required to report crashes involving personal injury or property damage
Injury/Damage Without Collision

If a bicyclist avoids collision, but falls as a result:

- Record same information as with a collision
- Note suspected traffic violations by any individuals involved
- **Collision is not necessary for issuing citations or being found at fault**
Increasing safety through traffic enforcement
The End!