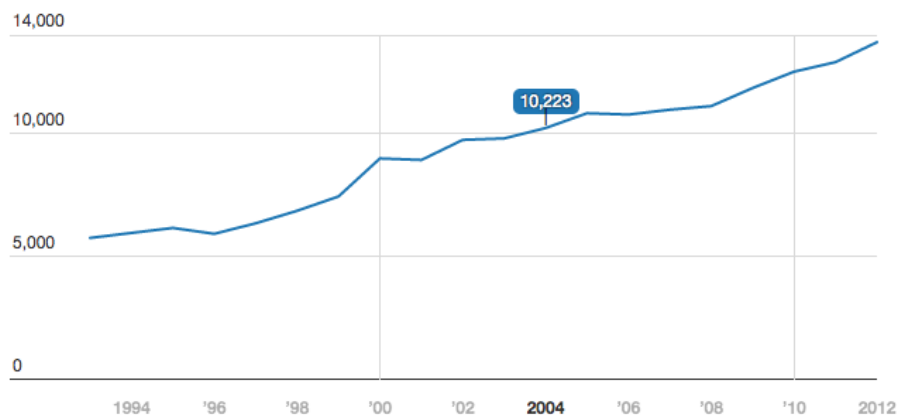


Walk On, Victoria – Pedestrian Issues Policy Research

Issue: Distracted walking

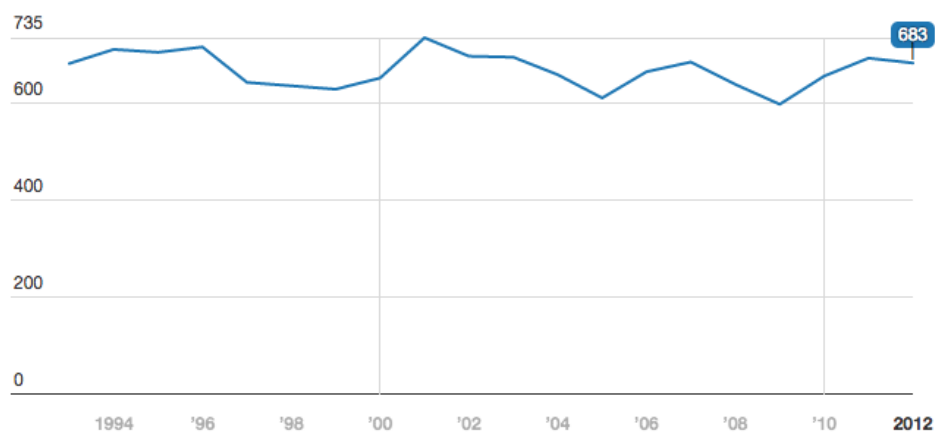
- a. Study of police accident report data shows no correlation between distracted walking and an increase in injury or death, similar data for distracted driving shows a steep relationship.

Injury/death collisions: Inattentive drivers



ONTARIO MINISTRY OF TRANSPORTATION

Injury/death collisions: Inattentive pedestrians



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- b. An experiment at the University of Bath reported that when people cross the street while on their phone, they “naturally slowed down, took their time and did not hit obstacles”
- c. One study by the University of Washinton found: 25-44 year olds most likely to text while walking, 1/3 of people are distracted in some way while crossing the street (listening to music, talking on phone, texting)
 - i. 80% obeyed traffic lights, 94% crossed at crosswalk but only 25% looked both ways before crossing.
- d. Associated Press found hospitalizations from distracted walking up fourfold from seven years ago
- e. A study in Manhattan by Basch et al found that out of more than 3500 pedestrians observed, more than a quarter were distracted during crossing.

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(28.8% of peds crossed at “walk” signal, 26.3% walked on “don’t walk” signal) analyses established that people on devices were more likely to walk during “walk” signal, but no significant difference in other distracted walking behaviors were observed

General conclusion: the jury is still out on whether distracted or inattentive walking is inherently dangerous. There is contradictory evidence in the literature as well as many factors that influence the stats they reference (e.g. age, location, walk signals). Some studies show bans have been effective, others not. Similar results for driving while texting bans. However, most significant factor for determining pedestrian injury/death is a car that hits them.

Issue: Reduced speed limits

- a. There are various techniques to reduce speed:
 - i. Traffic calming and complete streets
 - ii. Speed limits can be reduced
 1. Enforcement needed
 - iii. Narrowing streets
 - iv. Signage improvements
 - v. “Road diet”
 1. fewer lanes
 2. bike lanes
- b. Drivers tend to maintain a speed that feels comfortable based on design (lane width, visibility, clearance) and use (pedestrian activity included)
 - i. As a result, simply reducing posted speed limits may do little to reduce actual traffic speeds
 - ii. Effective speed reduction generally requires changing roadway design OR significantly increasing enforcement
 - iii. Enforcement can include speed cameras, aerial speed enforcement, electronic roadside signs that display vehicle speed
- c. Ivan, Garrick and Hanson (2009) found that higher average speeds are associated with wide shoulders, large building setbacks and a residential location. Lower speeds are associated with on-street parking, sidewalks and a downtown or commercial location.

Table 1 Responses To Opponents (SAHF 2011)

Opponents Say	Response
Lowering speed limits will cause congestion and increase travel time	In busy urban environments the average journey speeds are considerably less than the set speed limits. Data shows that lowering speed limits in built up urban areas has a minimal impact on drivers' travel time. Lower speed limits reduce delays – meaning smoother progression of traffic flow or harmonic traffic rhythm – under medium congestion levels. Adjusting traffic lights in slower speed areas will minimise delays, generate smoother traffic flow and relieve congestion. Drivers assume that driving faster will reduce overall travel time – not true in urban environments! Travel time is mostly influenced by frequent stopping or slowing down, such as at intersections and rail crossings. Traffic congestion in urban areas is a major consideration for assessing various modes of transport. Lowering speed limits will encourage more walking and cycling, and this shift will add capacity to our roads and reduce the strain on public transport services.
Changing speed limits will cause driver confusion	Speed limits should be one part of an overall strategy to calm traffic and improve the walking and cycling environments.
Cars are more fuel efficient at higher speeds – fuel consumption and emissions will be higher	Reducing speeds is not just about reducing pollution it's about driver safety, pedestrian and cyclist safety, improving health and increasing trader business. Emissions may be reduced under a 40 km/h speed limit compared to a 60 km/h. If people shift from cars to active transport there will be reduced noise and air pollution. Lower speed coupled with signal coordination can actually reduce emissions and fuel consumption. Aggressive driving such as accelerating hard from traffic lights and lane changing is a much bigger factor in fuel consumption than vehicle speed.
Reducing speed limits are just about raising revenue through speeding fines	No, it's about putting people and their safety first. It will improve the walkability and liveability of the city.

- d. Traffic speed is a major contributor to traffic accident risk, particularly for pedestrians and cyclists (WHO 2004). The *Power Model* states that a given relative change in the mean speed of traffic is associated with a relative change in the number of accidents or accident victims by means of a power (exponential) function (Elvik 2005). This indicates that a 10% change in the mean speed of traffic is likely to have a greater impact on traffic fatalities than a 10% change in traffic volume. Speed is likely to be the single most important determinant of the number of traffic fatalities.
- e. Based on analysis of several data sets that relate collision speeds and pedestrian injury severity, Pasanen (1992) estimated that about 5% of pedestrians would die when struck by a vehicle traveling 20 mph, 40% for vehicles traveling 30 mph, 80% for vehicles traveling 40 mph, and nearly 100% for speeds over 50 mph.

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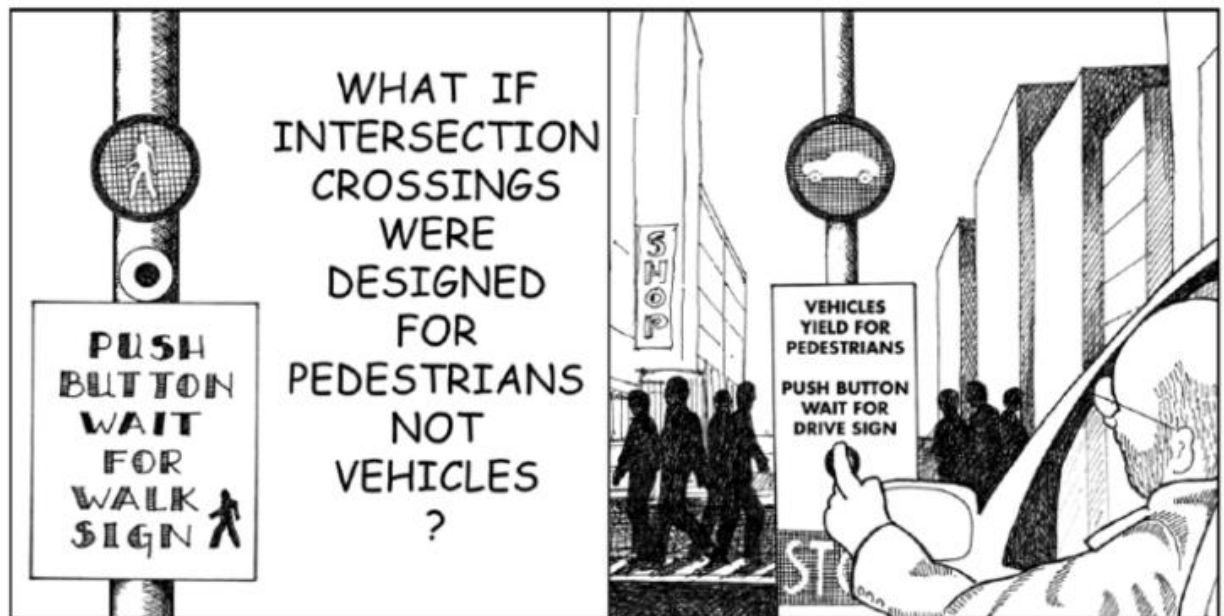
General conclusion: Unless speed limit reductions are coupled with enforcement techniques, comprehensive traffic calming is more effective. This includes speed tables, raised crosswalks, mini-circles, speed humps and lumps, roundabouts, road diets, bike lanes, narrower streets.

Issue: Creatively painted crosswalks

- a. According to Next City: Uncontrolled crosswalks - those marked by paint or other materials but not supplemented by traffic lights or stop signs were studied and published in the Transportation Research Board of the National Academies - found that on two lane roads, pedestrians were hit at same rate as at unmarked sites
 - vi. It was no safer to cross at a painted crosswalk than at another intersection with no walker oriented measures
 - vii. Multi-lane roads with lots of traffic, marked crosswalks were associated with a higher rate of collisions than their “naked” counterparts
 - viii. “The single most promising way to mitigate the danger of foot travel is to reduce vehicle speeds”

General conclusion: No data to show that painted crosswalks are more or less safe than regular marked crosswalks. Further, data shows even marked crosswalks are not more or less safe than unmarked crosswalks. Coupled with a traffic light or sign, pedestrian crossing is equally safe whether crosswalk is present or not.

Issue: “Beg buttons”



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- a. From Strong Towns “I know that the beg button may not seem like a big deal, but it is yet another way that cities send a message to pedestrians: You are not normal. You don't belong here. You need to push a button just to walk somewhere while we have built our transportation system to prioritize the free movement of cars.”
 - i. Alissa Walker made these points:
 - **Focus on driver violations instead of pedestrian "rule-breaking."** When it comes to enforcement, the button is often used as a way to blame pedestrians, i.e. you didn't push the button before you walked across the street so it's your fault you got hit by a car. Remove the buttons and start putting the responsibility in the hands of drivers.
 - **Use leading pedestrian intervals.** That means that every green light cycle begins with 3-7 seconds where only the walk-sign is illuminated. This gives pedestrians a head start in walking across the street.
 - **Redesign intersections.** I find this to be the best proposed solution because it has the power to do the most good. What about a roundabout instead of a traditional intersection? What about an uncontrolled intersection? What about narrower lanes and wider sidewalks?
- b. Leading Pedestrian Interval (LPI) have been shown to reduce collisions by 60% according to NACTO - gives pedestrian 3-7 second head start in crosswalk before turning traffic gets green <http://nacto.org/publication/urban-street-design-guide/intersection-design-elements/traffic-signals/leading-pedestrian-interval/>
- c. If button is there as a “traffic pause” button, it gives pedestrian control over cars
- d. Some buttons are “placebo” buttons, meaning traffic/lighting patterns do not change as a result of being pushed
 - i. Confirmed with the City of Victoria that this is not the case here, “Pedestrian pushbuttons at signalized intersections in the City of Victoria are installed to enable people wishing to cross the street to activate a signal change, and trigger a 'walk' phase. If you do come across installations that do not appear to be working, please report the location via our online Service Request Form (<http://www.victoria.ca/EN/meta/contact/service-request-form.html>), or contact our Electrical Shop staff at Public Works ([250.361.0400](tel:250.361.0400)), so the appropriate repairs can be made.” (Brad Dellebur, Engineering & Public Works)

General conclusion: Either walk signal turns on at every single red or LPIs should be the norm.