National Highway Traffic Safety Administration, higher vehicle speeds are strongly associated with both a greater likelihood of pedestrian collisions and more serious injuries. While only 5 percent of pedestrians die when struck by a vehicle traveling at 20 mph or less, according to the study, the fatality rate increases to 40 percent at a speed of 30 mph, 80 percent at a speed of 40 mph, and nearly 100 percent at a speed of 50 mph.<sup>32</sup>

A little known California law makes it difficult to enforce speed limits that are not set at or near the speed traveled by 85 percent of drivers on a particular street. This law has resulted in the boosting of speed limits in cities across California, despite the protests of residents who complain it compromises safety. According to a recent Los Angeles Times survey, the City of Orange raised the speed limits on more than 80 percent of its streets in 1994, and subsequently saw the number of serious accidents increase 21 percent over the next four years. The City of Santa Ana revised 70 of its 177 speed limits upwards, according to the Times. During the next three years about a third of all fatal pedestrian accidents occurred on streets where speed limits were raised.<sup>33</sup>

PEDESTRIAN PROFILE #4: SHACKELFORD ELEMENTARY SCHOOL MODESTO, STANISLAUS COUNTY, CALIFORNIA

Since 1971, Merle Olinghouse, a teacher at Shackelford Elementary School in Modesto, has powerlessly watched his students dodge cars while crossing Crow's Landing Road, the busy five lane highway adjacent to the school. "I've watched three of my students get hit by cars," he says. "One developed serious brain injury. With increased traffic, it's just getting worse every year."

Without any sidewalks or bike lanes, schoolchildren are walking and cycling in streets alongside speeding traffic that empties off nearby Highway 99. Most students live too close to school to be bused, but many parents on the other side of Crow's Landing drive their children to school even if they live only a block away. Children who don't get rides brave the streets alone on busy Crow's Landing Road and through neighborhoods without sidewalks.

"My friends and I were crossing Crow's Landing Road so fast that we dropped a backpack," explains Erica, a student at Shackelford. "I came back to get the backpack on the road, but my friends were all scared I would get hit. We were all so out of breath and scared that we couldn't talk." Without a traffic signal or overpass in front of the school, students are expected to cross the street at a lighted intersection three blocks away at Hatch Rd. to get to the school, but to many students that's simply not a logical option.

John and Diana Wiegand, whose son was hit by a car while walking to school, wrote a letter to the Modesto Bee in response to recent media publicity over the Crow's Landing crossing, "We noticed that the schools pulled out the same excuse they used in 1988—that there is a traffic signal at Hatch Road. They still don't understand that a poor kid, without a coat, when it is cold, is not going to walk the several extra blocks to cross at the light."

Years ago, when Shackelford parents and teachers asked the police to assist students across Crow's Landing Road, they determined that the street was too unsafe for a crossing guard. Judy Andrews, the school's community aide recalls that time: "the Police Department came and had three officers come for three days to walk the kids across the street. After three days, they said it was a suicide mission and they removed the crosswalk on Crow's Landing altogether."

More than 800 people recently signed a petition to construct a pedestrian overpass over Crow's Landing Road. In August 2000, Stanislaus County officials said that they would look for a solution, whether that involves installing a traffic signal or a pedestrian overpass. Most recently, County officials are said to be in negotiation with the school to install a traffic signal. Meanwhile, for most students, help can't come fast enough. As one Shackelford third–grader wrote: "Please build us a bridge so no one will get killed. I don't want to lose any of my friends."

The preoccupation with making traffic move faster has resulted in many other anti-pedestrian laws and policies as well. Motorists are allowed to make right

and left turns across the crosswalk during the walk sequence, and traffic signals are timed so as to improve the flow of traffic but making it difficult for parents with children and the elderly to cross the street. A 1994 UCLA study found that 27 percent of the elderly pedestrians observed crossing an intersection in a busy shopping area were unable to reach the opposite curb before the light changed. One quarter of this group was stranded in the middle of the street.<sup>34</sup>

The problem with the adoption of "right turn on red" laws was found in another study to result in a 57 percent overall increase in pedestrian-motor vehicle collisions. In urban areas, these collisions increased by 79 percent, with elderly pedestrians found to be the most at risk.<sup>35</sup>

Moreover, many measures taken to improve pedestrian safety actually penalize pedestrians. Many cities have responded to complaints about pedestrian safety by cracking down on jaywalkers. The Santa Ana City Council responded to concerns about pedestrian safety by making it illegal for pedestrians to take refuge on medians in the roadway,<sup>36</sup> despite the fact that many studies recommend providing raised medians for pedestrians as a way to increase safety.

Other communities have removed crosswalks or put up signs or barriers prohibiting pedestrians from crossing.

### **BLAMING THE VICTIM**

Pedestrians, even if they are very young children, are often found to be at fault in crashes, obscuring the fact that the real problem may be that speed limits are set too high, or that there are a lack of crosswalks, general pedestrian safety measures and safe places for children to play. Police reports are often designed to describe vehicle-pedestrian collisions in terms of what the pedestrian did wrong, and seldom note the actions of the driver or record the speed of the vehicle.

According to a recent Los Angeles Times story, California law unlike the law in 34 other states — does not have a provision requiring motorists to be especially careful around children, the disabled or other impaired individuals,

even though it does contain a provision requiring drivers to reduce speeds to avoid frightening livestock that may be on the road.<sup>37</sup>

The result of this tendency to hold pedestrians responsible also translates into difficulties for injured pedestrians attempting to get their medical bills paid, as insurance companies are less likely to provide compensation when pedestrians are faulted. And if the pedestrian or their family decides to bring a civil lawsuit against the motorist, attorneys are less likely to accept the case. Even when police do cite motorists in pedestrian accidents, the punishments are far from harsh. The most common type of pedestrian accident blamed on drivers - when a car strikes someone in a crosswalk - carries a maximum fine of \$103 in California regardless of the severity of the injury. That's far less than the \$271 fine for driving alone in a carpool lane or the \$270 fine for littering.

Statewide, police blamed pedestrians for 59 percent of all serious pedestrian accidents between 1994 and 1998, according to the Los Angeles Times story. In deciding culpability for the most common pedestrian collision – outside of a crosswalk – police must weigh the pedestrian's obligation to yield versus the motorist's obligation to exercise due care. The Times analysis of

PEDESTRIAN PROFILE #5:

BERNICE KRING

RETIREE

SACRAMENTO, CALIFORNIA

"Many drivers think that it's my responsibility to get the heck out of the way, but at my age that's difficult." So says Bernice Kring, a retired grandmother who recently moved up to Sacramento from southern California. "In the state capital, you'd think people know the law, but they don't stop for pedestrians. In Orange County, even the low-riders stop for you and know the laws."

Just five years ago, Bernice was an active adult in more ways than one. When she used to work for Grandmothers for Peace, it wasn't unusual for her to walk 20 to 30 blocks a day. But now Bernice is legally blind in one eye and has poor hearing. She doesn't walk as much as she used to because of asthma and poor air quality. Bernice jokingly says that she may one day have to tell the police she

suffers from "Spastic Ambulatory Syndrome," to explain the loss of control of her movements in order to avoid being arrested for public drunkenness. "At my age, I don't walk too straight," she says.

As an elderly pedestrian, she encounters many more challenges on her routes than a typical person. Due to lack of maintenance, sidewalks are broken up and she often trips and falls. Traffic lights aren't timed long enough even for younger pedestrians to safely cross. Kring often needs an extra light in order to navigate the larger intersections. Sacramento County suburbs, she explains, aren't built for pedestrians. If there are any sidewalks, they're usually too narrow. And drivers are often startled to find her in the middle of a long crosswalk or alongside a busy road, something she's convinced they'll understand when they get to be her age. "How do they get to their cars anyway?" she wonders out loud. "Do they flap their wings? Maybe they just blink their eyes?"

In addition to contending with traffic, she puts up with taunting by youths. Because of the street design, cars filled with kids have sped by close enough to the sidewalk to reach out and grab her groceries. Nowadays Bernice always carries her grocery bags on the inside. "I notice that I'm not out as much as I once was. But when I do go out, they don't argue with me as much as they used to. Now I have a cane."

333 such collisions in Santa Ana showed police decided in favor of the motorist 97 percent of the time, even though more than half of the accidents involved children under 9 years of age who were almost invariably hit in residential areas. According to the Times, police in Santa Ana also blamed hundreds of accidents over the last decade on children as young as 2 years old, and assigned fault to pedestrians in dozens of hit-and-run accidents, even when the pedestrian was killed.

Serious questions have also been raised about whether police are ignoring illegal driver behavior. The degree to which drivers have been found responsible ranges from 21 percent to 46 percent

IN THEIR OWN WORDS
RICK ANDERSON
TEACHER, MOBILITY FOR THE DISABLED
SACRAMENTO, CALIFORNIA

"When I see tire tracks over the sidewalks at curbless corners that you can drive a car onto, I point that out to my students—watch out, I say, you could get hit here.

The infrastructure is 20 years behind. Many of the corners don't have wheelchair ramps. Sidewalks are really narrow. Why are all the light rail tracks at the level of the street? Why weren't they installed so that there's pedestrian bridges? There hasn't been any planning for the separation of pedestrians, bicycles and cars. Our tax dollars should go to pedestrian bridges and bicycle tunnels.

The infrastructure in Sacramento, especially downtown, is 20 years behind. Many of the corners don't have wheelchair ramps. Sidewalks are really narrow. The pavement is so old and potholed in downtown residential areas that it's dangerous to walk across.

Pedestrian walk/don't walk lights everywhere just don't last long enough. You step out, and three steps later, the light starts blinking. Whether or not you have a disability, you could be caught in the middle of traffic. You're lucky if there's an island, but they're only a foot wide and not big enough to use safely if they exist at all.

These high speed one-way streets through the downtown residential areas are very anti-pedestrian and anti-disabled. There's no accommodation for the handicapped in the one-way residential zone except for some wheelchair ramps that are only now being installed. The message seems to be that there's not enough money to go around. There must be a way to make the big guys give the poor people and people with disabilities our fair share."

in different studies.<sup>38</sup> A very recent study of police reports from deadly pedestrian crashes in New York City found that in 74 percent of the cases drivers were speeding, had illegally turned into a crosswalk, had run a stop light or were otherwise culpable. Only 16 percent of the drivers were cited.<sup>39</sup>

A 1997 UCLA study found that 25 percent of pediatric pedestrian injuries involved hit and run drivers.<sup>40</sup> Other studies found that drivers take minimal evasive action to avoid striking pedestrians.<sup>41</sup> A 1999 UCLA study investigated the compliance rate of drivers at three stop signs on the university campus, and found that only 22.8 of every 100 drivers stopped at the crosswalk. The rate of compliance improved to just 53 percent when pedestrians were present in the crosswalk.<sup>42</sup>

The tendency to blame either pedestrians or motorists for collisions has obscured the fact that the physical design of the street or intersection is often a significant contributing factor: it can actually serve to encourage dangerous vehicle movements, speeding or jaywalking.

## THE THREE E'S: EDUCATION, ENFORCEMENT AND ENGINEERING

Assigning fault to pedestrians creates the impression among policy makers and the public that there's nothing that can be done to improve pedestrian safety. As a result, pedestrian safety efforts are typically targeted at educating the pedestrian to use additional caution, even though numerous health studies conclude that education alone has limited effectiveness, especially with children, and that modifications in street design and the lowering of speed limits are also needed.<sup>43</sup>

A recent article in the institute of Traffic Engineers Journal by researchers in Orange County points out that while children as young as 9 can learn the skills required to cross the street, they are unlikely to use them because of developmental limitations in their cognitive, perceptual and behavioral abilities – especially if they are engrossed in play.44 The article concludes that because children are small and have a narrower field of vision they are less visible to drivers and less able to see approaching cars. Children are disadvantaged because the task of negotiating traffic requires complex assessments of speed,

distance and time that are beyond their experience. Children are also unable to understand the driver's point of view and typically assume they are safe, especially if they are in a crosswalk.

For these reasons, the researchers conclude, traffic safety education must be expanded to target motorists as well as incorporate both speed enforcement and street engineering strategies in order to reduce child pedestrian accidents. "Modifications in street design and operation by traffic engineers also are required to prevent child pedestrian injuries . . . neighborhood streets need to be designed to reduce traffic speeds," write the authors. "Society cannot adapt children to traffic; society has to adapt traffic to children."

## RESPONSE 15.49

The comment is noted for the record and will be forwarded to the City decision makers for their review and consideration. The information provided in this comment has been addressed in Response to Comment 15.027.

### **COMMENT 15.50**

# TOUGON CONTROL

# RESPONSE 15.50

The comment is noted for the record and will be forwarded to the City decision makers for their review and consideration.