

# Chapter 2 Pedestrian & Bicycle Issues





## **PEDESTRIAN & BICYCLE ISSUES**

Unlike many countries worldwide, the United States is heavily dependent upon automobile transport to a vast majority of destinations. Inevitably, pedestrian and bicycle usage has dropped significantly as primary methods of travel. In one instance, since 1960, the number of pedestrian and bicycle trips by children has decreased by 40%. In another example, a 1999 study found nearly 90% of Americans using the automobile as their primary mode, with walking at 6%, and bicycle use a meager 1%. In stark contrast, in the Netherlands (as a European example) only 45% of the population utilizes the car, while 18% walk, and a significant portion - 28% - bicycle as their primary mode of travel.

There are a number of reasons behind these statistics in the U.S., primarily poor development patterns and disconnected communities where walking or biking a mile to a destination can be a dangerous proposition. The side effects have been nothing short of staggering with an epidemic of obesity sweeping the nation stemming from a sedentary lifestyle.

This chapter aims to put in perspective the major issues behind trails, from their rejuvenation due to federal funding set-asides, to their positive impacts on a community's quality of life. Much education is still needed to relay the message that trails offer strong positive impacts to localities on a number of issues, both directly and indirectly.

### **I. Federal, State & Local Initiatives**

Northwest Indiana (specifically Lake and Porter Counties) is one of five ozone non-attainment areas within the State of Indiana and is the worst of the five with a designation of "severe." There are five levels of non-attainment classification ranging from "marginal" to "extreme", with "severe" ranking as the second worst. This classification is based upon the degree to which an area exceeds the ozone standard.

Because ground level ozone is regarded as the number one concern in large urban areas across the country, a major segment of the Clean Air Act Amendments (CAAA) of 1990 is devoted to addressing the problem. States having ozone non-attainment areas within their boundaries are mandated by the CAAA to develop and implement programs by specific dates, under the direction of the EPA that will reduce ozone causing pollutants from all sources.



The permissible programs for reducing the ozone emissions in non-attainment areas are included in the CAAA. These programs are known as transportation control measures (TCMs). Some of the transportation control measures in the CAAA identify alternative modes of transportation to the single occupant vehicle as a means of reducing the ozone emissions. These transportation alternatives include carpooling, ridesharing, public transportation and of course, bicycling and walking.

**A. The Legacy of ISTEA**

In 1991, Congress passed the landmark Intermodal Surface Transportation Efficiency Act (ISTEA), that recognized the increasingly important role of bicycling and walking in creating a balanced, intermodal transportation system. ISTEA established funding programs such as Transportation Enhancements (TE), the Recreational Trail Program (RTP) and the Congestion Mitigation and Air Quality Improvement Program (CMAQ) to provide a significant amount of their funding to the development of non-motorized transportation projects. In 1998, ISTEA was reauthorized by Congress into the Transportation Equity Act for the 21st Century, or TEA-21, which further increased funding levels to said programs, including the addition of more non-motorized funding avenues. One of these included the Transportation and Community and System Preservation (TCSP) program. As of the writing of the *Ped & Pedal Plan*, Congress continues to debate on the successor to TEA-21, where regardless of the outcome, funding levels will likely continue to increase.



The “TEA” legislations have been responsible for over 12,000 miles of off-road trails being constructed in the United States. In Northwest Indiana alone, nearly 70 miles of off-road trail have been constructed, with another 50 miles either funded or planned. The legislation has provided the funding, planning and program authorizations necessary to create more walkable and bicycle-friendly communities. A detailed description of the TEA programs mentioned above will be discussed in **Chapter 3**.

**B. State & Local Roles**

Through the “TEA’ legislations, the Indiana Department of Transportation (INDOT) set aside 10% of it’s federal apportionment to projects for the Transportation Enhancement (TE) program. In 2004, INDOT will distribute nearly \$20 million statewide for projects eligible under the TE program. Since ISTEA, INDOT has awarded entities in the NIRPC region \$26.8 million, for an average of \$2.3 million per year. In addition, the Indiana Department of Natural Resources manages both the



Recreation Trail Program (RTP) and the Land and Water Conservation Fund (LWCF). In 2003, the DNR distributed \$800,000 RTP funds and \$1.4 million LWCF funds statewide.

At the NIRPC level, the Transportation Enhancement Committee has been charged in reviewing and ranking all bicycle and pedestrian projects eligible for TE funding. Their rankings are then submitted to INDOT for final review and approval by the Governor. The TE Committee further reviews DNR-funded proposals for regional significance, although DNR does not require such MPO review.



In a far more direct fashion, the TE Committee also solicits and ranks projects for NIRPC's Transportation Improvement Program, or TIP, which doles out approximately \$10 million per year of allocated Surface Transportation Program (STP) monies. Of this money, no less than 3% is guaranteed to non-motorized projects, with more funding eligible based on roadway-related submissions. NIRPC internally selects these projects, and funds them at their own discretion without any further approvals from INDOT.

## II. Need for Active Living

America is rapidly becoming a nation under siege to unhealthy eating habits, poor lifestyle choices, and shortsighted land use planning. If any greater argument can be fostered for the inclusion of better walking and bicycling facilities in a community, it would stand to reason that increasing the overall health and wellness would take a primary focus.

### A. An "Obese" Epidemic

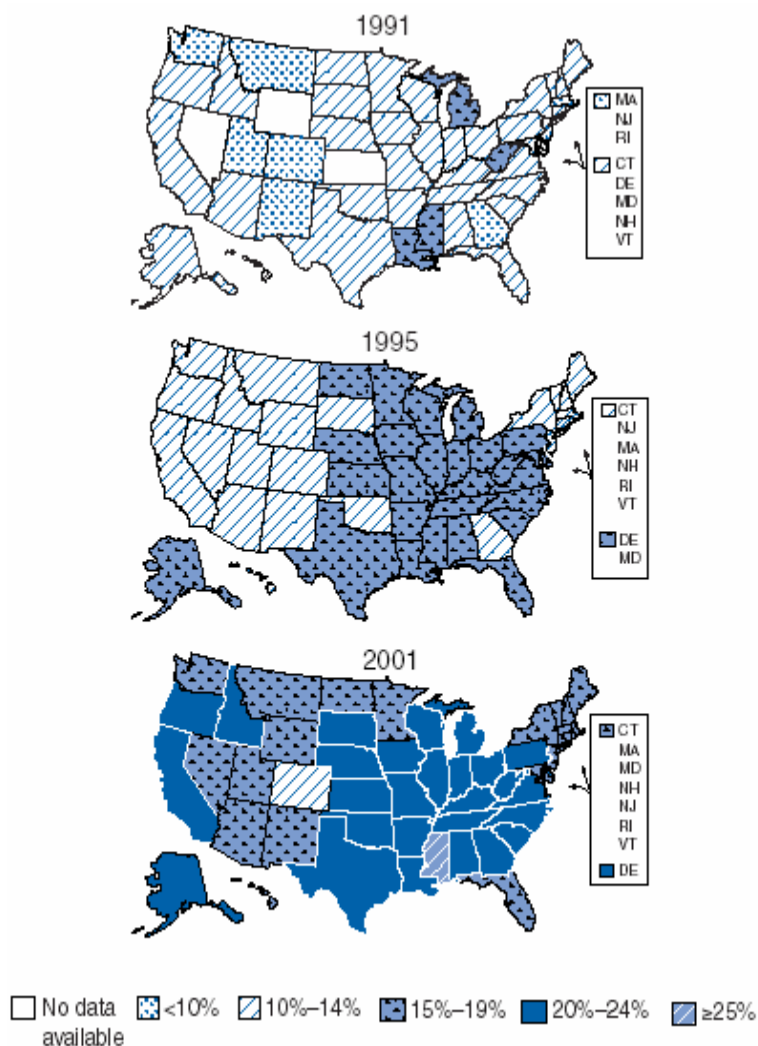
America is growing...fat. Physical activity rates in the United States are dangerously low, and continue to deteriorate. The Journal of the American Medical Association estimated that upwards of 400,000 people died due to inactivity and poor nutrition. This would rank second to smoking as the leading cause of preventable death in the United States. As shown in **Figure 2-1** it is very likely that obesity-related deaths have become our number one preventable killer. The Centers for Disease Control (CDC) have estimated that more than 120 million people, or 64% of the U.S. adult population are overweight, with 31% considered obese.



The damage is not only restricted to our waistlines, but also bleeds into our pocketbooks. The CDC



**Figure 2-1: Percentage of Obese Populations per State**



further estimated that in 2000, direct and indirect health costs related to obesity amounted to \$117 billion.

The reasons for our deplorable health status are many. Of prime note is simply eating way too many calories while not getting enough physical activity - no matter how many "carbs" you count. It is estimated that more than 60% of American do not get enough physical activity to provide even basic health benefits. The CDC defines this as 30 minutes of moderate activity five days a week, or 20 minutes of vigorous activity for three days a week. As for nutrition, we are weaning our younger generation on horrible health habits - with 60% of young people eating too much fat, and less than 20% consuming the recommended servings of fruit and vegetables each day (CDC).

Beyond just bad eating, we are also enjoying a very sedentary lifestyle buoyed by modern technology. The internet, VCR's, DVD's, video games and the lure of hundreds of channels to absently surf through on the television has turned our focus inside the home, and thus on our posteriors. Very little inspiration remains to get outside and take a pleasant walk or ride a bike, but then again, where is there to go?

**B. Poor Quality Development**

Many creative names have been attributed to poor land use development patterns in the United States over the last 50 years. These include "leapfrog" and "greenfield" development, but the



most commonly used term has been simply “sprawl”. In short, sprawl tidily sums up the rampant pace of new construction further and further outside established city centers. This in turn has produced a number of dilemmas over the years, which include population flight from cities and older “ring” suburbs, and the increased pressures on once pastoral communities now grappling with serving their new residents and businesses with essential municipal services.

Northwest Indiana has hardly been immune to sprawl. U.S. Bureau of Census figures show that the NIRPC region of Lake, Porter and LaPorte Counties experienced a 4.2% growth in population, with a 9% growth in new housing units. NIRPC’s *Connections 2030 Plan* estimated that 33% of these new housing units were constructed in the unincorporated areas of Lake, Porter and LaPorte Counties. Taken together, these statistics continue to demonstrate poor land use development patterns away from established municipal infrastructures and essential services.

What these patterns have also established is a culture severely dependent upon the automobile as the sole transportation mode. With new development pushed farther away from common destinations (shopping, schools, etc.), it has made pedestrian and bicycle travel not only infeasible, but hazardous as well. In addition, an increasing number of new subdivisions are being planned without sidewalks along the collector or arterial roads that feed into them. Furthermore, municipalities are not being proactive in setting aside greenways and open space for permanent off-road, communitywide connections. The end result has left a vast majority of our population disconnected, and thus stuck in their homes with very little inspiration or desire to leave.

### III. The Benefits of a Pedestrian and Bicycle-Friendly Culture

Into this muddled chasm of poor development, bad health habits and sedentary lifestyles has emerged a new philosophy on the benefits of non-motorized travel. Communities around the country are re-discovering the many positive attributes that are brought about by catering to a culture of connectivity.

#### A. Making the Connections

In a poorly designed community of scattershot subdivisions and land uses, what emerges as the most negative aspect is the lack of being able to connect to any other part either by foot or bike. It is estimated that a person can comfortably walk one mile in 15 minutes, and by bike in five. However, the way many communities have developed, traversing these distances in any other form than by automobile is risking one’s own life at times.



With connected sidewalks, greenways and trails incorporated into the growing development scheme (or retrofitted for that matter), communitywide links are assured, as well as a positive quality of life. There are numerous destinations that would benefit including schools, parks, civic facilities (libraries), retail centers and other areas of employment. A growing number of communities are beginning to recognize that their constituents demand better quality of life choices, and facilities that improve their health and wellness.

To this end, and as mentioned earlier in this report, the primary reason people use trails is for improving their health - far ahead of recreational purposes. A safe, maintained and planned non-motorized network represents a tremendous attraction for new residents, and for that matter, businesses alike who desire to locate where a healthy workforce resides. A 1991 Harris Poll found that 46% of the 1,250 adults surveyed said they would bike to work if designated trails were built.

Trail activities such as walking, jogging or running, in-line skating, cross-country skiing, and bicycling are well documented to improve health and fitness when done on a regular basis. Physical activity need not be unduly strenuous for an individual to reap significant health benefits. This benefit accrues to the individual, and, in the form of reduced health-care costs, to society as well.

**B. Just "Common Cents"**

A growing library of empirical data has clearly shown the positive effects of trail development on a local economy. From a homeownership perspective alone, trail location has been associated with higher property values and attraction for homebuyers.



- A 2003 study by the Center for Urban Policy and the Environment at Indiana University-Purdue University Indianapolis determined that homes near the many greenways in Indianapolis sold for 10% higher than the average for all homes within the larger districts.
- A survey conducted by the National Association of Home Builders found that recent home buyers ranked trails as the second most important community amenity out of a list of 18 choices. Only freeway access ranked higher.
- An informal 1985 survey of 40 experienced real estate experts found that all agreed that the 40-mile Illinois Prairie Path made properties easier to sell and often created a price premium.



In addition to positive home ownership attributes, trails and greenways bring job growth in construction maintenance as well as tourism-related opportunities like bike rentals, restaurants and lodging. In addition, they also attract new businesses to an area, and thus serve as a vital economic development tool.



- Total spending estimates for six trail-heads along the Allegheny Trail in Pennsylvania ranged from \$5.4 million to \$14.5 million as reported in a 1998 survey.
- A 1998 survey showed that visitors to Ohio's Little Miami Trail spent an average of \$13.54 per visit just on food, beverages and transportation to the trail. In addition, they spent an estimated \$277 each year on clothing, equipment and accessories to use during their trips. The economic potential was astounding considering there were 150,000 users in 1998.
- The City of Pueblo, Colorado attributes the investment in trails and parks along the Arkansas River and Fountain Creek as one of the most important components in the economic revitalization of this industrial city.

These figures bode well for the Northwestern Indiana region where many of the existing and planned trail systems traverse through established downtown districts. Many of these same trail networks also link up to large retail centers allowing another mode of transportation for utilitarian and employment trips.

### C. **Protecting Our Environment**



As trail development provides many positive attributes, there also exists solid reasoning for their incorporation in aiding our environment. For one, trail corridors provide linear greenbelts which preserve and protect plant species and open spaces that facilitate wildlife habitats and their migrations. Furthermore, the preservation of trail corridors improve water quality and mitigating flood damage. They do this by providing natural buffer zones to protect streams, rivers and lakes from pollution run-off caused by fertilizer and pesticide use on yards and farms. They also can serve as flood plains that absorb excess water and mitigate damage caused by floods. Such conservation efforts make good sense, because they save communities money in the long-run.

#### IV. Overcoming Opposition

Even with such superlatives associated with pedestrian and bicycle facility development, there still remains a number of people and organizations which strongly oppose their creation - especially trails. Their reasoning comes in many flavors which have been debunked in virtually every case, and include the following issues below.

##### A. Crime

Despite numerous studies that have concluded trails do not generate crime, concerns persist and fear of the unknown continues to provide fertile ground for trail opponents. Stories of trails attracting drug dealers, murderers, thieves and rapists are perpetuated by trail opponents with only a handful of newspaper headlines rather than empirical research. Truth is, local residents and police departments both have agreed that with limited automobile access to trails, criminal activity had not increased, and could in fact decrease due to the extra patrols and activity by law-abiding citizens.



- An intensive study and survey undertaken of a trail in Seattle, WA in 1987 found that occurrences of crime remained the same when the abandoned railroad was converted to a recreational trail.
- In 1998, the Rails-to-Trails Conservancy reported findings from their survey of 373 trail systems in the U.S. which found that only 3% of respondents reported any type of major crime (rape, murder) associated with trails in 1995 and 1996. In addition, only one-fourth of the respondents reported minor crimes occurring (littering, graffiti, petty theft).

##### B. Privacy

Of all concerns raised by those who will be directly affected by the placement of a trail facility, privacy issues hold the most weight. In this case, trail design concepts become critically important towards facilitating approval from neighboring properties. Natural screening such as large shrubs and planted berms, or manmade fences can effectively serve to preserve a homeowners sense of privacy. However, and as previously mentioned, trails positively impact the value of neighboring properties and enhance the overall quality of life.

##### C. Liability

The specter of a tort claim against a local entity regarding pedestrian and bicycle travel is a



legitimate fear. Our society has developed a hair-trigger response to any perceived violation of rights, especially when they feel their own government is not doing enough to protect them. Major non-motorized liability can be divided into three separate modes:

**1. Trails:** Along with the fear of increased crime rates and privacy, fear of being threatened with a lawsuit is a common concern among landowners adjacent to a proposed rail corridor. Likewise, potential trail owners and managers are sometimes leery of undertaking a trail project because of the liability exposure. However, the laws that protect adjacent landowners as well as trail managers, coupled with strategies for designing and managing a trail, should provide ample protection for managers and adjacent landowners alike from successful lawsuit. The three legal precepts that define and in many cases limit liability are Duty of Care, Recreation Use Statutes, and liability insurance as a final line of defense.



**2. Shared Routes:** For many bikers, sharing an existing roadway with automobile traffic is the only way to travel. However, this poses an increased risk of liability due to passing motorists either hitting or throwing debris at them, which unfortunately is all-too-commonplace. However, in Indiana, as in other states, bicyclists have a right to the road as much as automobiles do. To this end, they are allowed by state statute to ride as deep as two abreast, and can take over the left hand turn lane if proceeding in that direction. Of prime concern to local municipalities and counties are their signed routes, and how well they are maintained. It goes to reason that signing a dangerously fast and pothole-festooned route would provide for an ample amount of evidence for a tort claim. Providing a reasonable amount of maintenance is all that is needed to stem any further actions.



**3. Sidewalks:** Many municipalities are faced with a lawsuit now and then from those who have tripped or fallen due to sidewalks in disrepair. Since budgets are simply too tight to undertake an all-out reconstruction of all poor sidewalks, a logical alternative is creating a five-year maintenance plan to demonstrate, at the very least, a community's efforts to improve the walking environment. Also, communities should be very cognizant of American with Disability Act (ADA) laws which require wheelchair ramps at all corners and driveway entrances. In short, liability as this level is murky at best since many communities claim that the landowners are responsible for the maintenance and care of their sidewalk. This remains an issue of considerable debate.

Simply stated, properly planned operations and design can provide all the effective measures necessary to appease adjacent landowners who, for the most part, are acting out on what they don't know. It is up to the municipal or county officials to provide the education and patience necessary to win over a majority of people. It shouldn't be expected that everyone will go along with a trail project, but enough support should be generated to quell their opposition.

## V. Education

Education is important because many bicyclists, pedestrians and motorists are unaware of the rules of the road affording each user. Enforcement and education historically overlap one another and will dominate policy recommendations. Too often the simple and proactive initiative of encouragement of riding a bicycle or walking to a nearby destination is lost.

### A. Bicycles

Educating the adult bicycle rider is more difficult than educating a child. Adults often ride illegally, against traffic for example, because of the prevailing attitude that the bicycle is a recreational object. It is difficult to educate an adult because they are not always receptive to safety training. The only sure way of reaching adults is for a police officer to issue a traffic citation. Motorists often do not understand the bicyclist on the road. This group must also be educated as to the rights and concerns of the bicycling community.



However, educating the child rider remains a very difficult task. Traditionally the bicycle is seen as a toy to the child. This attitude encourages unsafe bicycle riding. Instead, bicycles are the form of transportation children depend on. Children hear too little about the importance of bicycle safety or lose the safety lesson while learning technique. Often, safety instructors rely on memorizing the "Rules of the Road" which many children fail to remember in actual practice.

### Pedestrians

It should not be discounted that the cheapest and healthiest form of transportation for a vast majority of people is their very own feet. As already mentioned in this chapter however, pedestrian-travel is becoming increasingly difficult due to spread-out development patterns and crumbling or incomplete sidewalk infrastructure. In addition, many intersections where automobiles and pedestrians interact are devoid of vital safety measures, such as adequately-timed signals and crosswalks, to guide people safely across streets.



Education however does not completely escape the pedestrian themselves. Many individuals would be well-advised by following common-sense practices to help avoid dangerous situations. Crossing the street at the appropriate location, and not jaywalking, would greatly aid in safety of movement just as one example. Another would include walking or jogging on a roadway against traffic if a sidewalk is not present. Since all of us are a pedestrian at one point of every trip we take (you do get out of your car, don't you?), it would stand to reason that providing for safe travel should be a priority for every community.

## C. Safe Routes to School

In light of growing concern over bicycle and pedestrian safety, a movement which has gained significant momentum over the last five years is the Safe Routes to School (SR2S) program. Originally conceived in Denmark in the 1970's, the SR2S program seeks to reduce the number of child pedestrian accidents through a series of initiatives launched with the support of multiple constituencies. The SR2S vision engages the following ideals:



1. Locating schools in close proximity to the children who attend them;
2. Providing good facilities for walking and biking to school;
3. Reducing the threats to health and safety posed by motor vehicles, pollution, and crime.
4. Fostering a cultural shift that accords high value and broad responsibility for the realization of this goal.

These are goals which can be attained through pro-active planning at the front-end involving ALL forms of land development. Statistics in 2001 showed that nearly 9 out of 10 children between 5 and 10 years old were driven to school by parent or bus, which in turn increases traffic and creates a negative environment around schools. Through the SR2S program, our desire to recapture that cherished and independent expression of our childhoods - walking or biking to school - can once again be attained.

