

THE BENCHMARKING PROJECT

*“Are We
There Yet?”*

*Assessing the Performance of
State Departments of Transportation
on Accommodating Bicycles
and Pedestrians*

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THE NATIONAL CENTER FOR BICYCLING & WALKING

The National Center for Bicycling & Walking (NCBW) is a national, nonprofit organization established in 1977. Our mission is to make communities bicycle-friendly and walkable. In 2001, the NCBW was awarded a multi-year grant by The Robert Wood Johnson Foundation (RWJF) to provide technical assistance to communities, advocates, and professionals working to create more activity-friendly communities.

Other NCBW services include: consulting on long-range planning, policy development, public involvement, route selection, planning and design guidelines for bicycle and pedestrian facilities, training programs for public health and transportation professionals, economic development and tourism planning and analysis, and organizing and managing workshops and conferences, including the biennial ProWalk/ProBike conference.

Finally, the NCBW works with local, state, and national bicycle, pedestrian, and transportation professionals and advocates to improve government policies, programs, and practices to better support bicycle-friendly and walkable communities.

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PREFACE

There is a simple logic to it all:

The public health people look at the data and tell us that our sedentary ways are making us sick (well, they actually put it a bit more elegantly, but that's the bottom line), and they conclude that we have got to be active, every one of us, every day.

Then, they look around and conclude that the best way for most of us to be active is to walk or bicycle.

Virtually all bicycling and most walking takes place in public space, along the streets and highways, and in park and recreation areas.

Not all of these areas are now well-suited for bicycling and walking.

This situation will only improve with the full, active participation of the various public agencies responsible for these areas (and the other elements of our community such as schools, planning, safety, etc.) to remove the barriers and expand the opportunities to walk and bicycle.

One of the most critical elements of community design as it affects bicycling and walking is the system of streets and highways, so we've got to have the transportation and public works agencies fully onboard "with the program."

What do they need to do? For a start, they need to develop and implement good bicycle and pedestrian plans, they need to provide good accommodations for bicycling and walking, and they need to be pro-active in facilitating kids walking and bicycling to school.

Are they doing this yet? That's what we wanted to learn. This report is the result.

ACKNOWLEDGEMENTS

This report – this whole benchmarking project – has been something I've wanted to do for years. Thanks to Bob Chauncey, my co-author, we're finally off to a good start. Bob took my notions and turned them into a coherent project. His interest and enthusiasm, and his upbeat, pleasant approach, go a long way towards explaining how he was able to collect data from 49 state departments of transportation and the District of Columbia.

And, thanks too, to the bicycle and pedestrian coordinators in these agencies; without their cooperation there would be little chance of getting a study like this done. These agency staff people serve in challenging positions: they are each employed by an agency that has, for most of its history, not given serious attention to bicycling and walking. These coordinators are, of necessity, frequently pioneers, advocates, and change agents. Having been there, I share with them an awareness of the challenges and the rewards. Thanks, folks!

Finally, thanks go to The Robert Wood Johnson Foundation for its ongoing support of the NCBW's activities as part of its Active Living initiative. More than ever, we are all coming to realize that bicycling and walking are more than just good, fun things to do: they are essential to our health and well-being.

Bill Wilkinson, Executive Director
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INTRODUCTION

The approach to land development and highway construction following WWII began to eliminate many of the more traditional details of street and highway design that had previously served to accommodate bicyclists and pedestrians. Narrow streets, few lanes, ubiquitous sidewalks, and frequent intersections began to disappear. Instead, the streets and highways got wider (even in residential neighborhoods), more travel lanes were added, motor vehicle speeds increased, traffic volume grew, the number and frequency of intersections were reduced, highway shoulders were turned into travel lanes, and sidewalks were either not built or, in some cases, eliminated.

Over the past 30 years, there has been a steadily growing demand to reverse this trend. Recently, the public health community has added its voice to this call, citing a host of chronic health problems¹ related to physical inactivity and obesity, and declaring that all of us need to walk or bicycle on a regular, routine basis. For this to happen, our communities need to become bicycle-friendly and walkable again.

Most walking and virtually all bicycling takes place on space either owned or managed by public agencies (e.g., streets, highways, and parks) or in areas, such as residential subdivisions, where the design of which is subject to some level of public oversight and regulation. Therefore, the opportunity to bike and walk largely depends on the actions of public agencies to provide safe and convenient accommodations.

What would the policies, priorities, plans, procedures, programs, and projects of public agencies look like if providing safe and convenient opportunities to walk and bicycle – anywhere and everywhere – became the desired outcome? While it is likely that no one size would fit all, it is possible to identify a general set of “benchmarks” or performance criteria to define what is required with regard to these identified factors. With benchmarks set, it is possible to assess current practice and focus attention on implementing actions needed to improve outcomes for bicycling and walking.

This report by National Center for Bicycling & Walking (NCBW) documents the results of the first of what will be a series of studies

conducted as part of **The Benchmarking Project**. This initial report focuses on specific state department of transportation (DOT) activities. Subsequent studies will explore other state DOT topics as well as the activities of Metropolitan Planning Organizations (MPOs), local governments, and other state agencies, related to walking and bicycling.

For nearly a century, the 50 agencies we now think of as the state departments of transportation have been the major players in setting the priorities and practices for this country's system of streets and highways have been. The state DOTs are the nexus for federal legislation and policy; for the application of standards and recommendations of federal agencies (e.g., US Department of Transportation and Federal Highway Administration) and national organizations (e.g., American Association of State Highway and Transportation Officials and the Institute of Transportation Engineers); and for liaison with the programs and practices of regional and local agencies and municipalities.

Given the central role of the state DOTs in determining the design and operation of our streets and highways, the NCBW decided to begin its benchmarking project with a scan and assessment of their key plans, policies, and practices related to bicycling and walking. We focused on these topics, in part, because the current federal transportation legislation, the Transportation Equity Act for the 21st Century (TEA-21), expires at the end of September 2003 and must therefore be reauthorized by the Congress. Issues related to bicycling and walking that are already under discussion as part of this process include long-range planning requirements, routine accommodation of bicycles and pedestrians in highway projects, and funding for safe routes to school programs.

While each of these issues is addressed to some degree by TEA-21, and in various regulations and recommendations from federal agencies and national organizations, no comprehensive effort has previously been undertaken to document the current practices of all 50 state DOTs. The degree to which existing legislation, regulations, guidance, and recommended practices have been incorporated into the routine practices of the state DOTs is not known. The data collected and the benchmarks developed for this report are intended to serve as a first look at current state DOT practices related to planning, routine accommodation, and safe routes to school by comparing them to a set of benchmarks.

In February 1999, the Federal Highway Administration (FHWA) issued guidance to the state DOTs on TEA-21, bicycling, and walking.² The statement contained these declarations:

“To varying extents, bicyclists and pedestrians will be present on all highway and transportation facilities where they are permitted and it is clearly the intent of TEA-21 that all new and improved transportation facilities be planned, designed and constructed with this fact in mind.”

“Congress clearly intends for bicyclists and pedestrians to have safe, convenient access to the transportation system and sees every transportation improvement as an opportunity to enhance the safety and convenience of the two modes.”

So, are we there yet?

METHODOLOGY

QUESTIONNAIRE

A set of questions was developed to determine the status of statewide long-range plans, state DOT policies and practices related to the accommodation of bicycles and pedestrians in the design of streets and highways, and whether the agency has a safe routes to school program. In addition, we requested copies of plan documents and policy statements related to these topics (or for a web address, if these documents are available online).

DATA COLLECTION

A description of the overall project and the list of questions were set forth in a memo titled, “The Benchmarking Project: Phase 1, State DOT Scan (Part A).”³ This was sent to each of the state DOT bicycle/pedestrian coordinators⁴ as an attachment to an email posted to the “State DOT Bicycle/Pedestrian Coordinators” listserv in early December 2002. The memo indicated that the NCBW project manager would contact each coordinator by phone to collect their responses to the questions.

Data collection began the following week and via telephone. In each case, the data was provided to us by the state DOT bicycle/pedestrian coordinator. Follow-up calls and emails were used, as needed, to make contact and collect the data. Responses were recorded in an Excel spreadsheet. Reports and policy documents were requested and collected (hard copy and on-line copies).

Data was collected from 49 states and the District of Columbia.⁵ In some cases this involved follow-up calls to provide more information on the purpose of the data collection. The final cut-off for responses was 25 February 2003.

VERIFICATION

A draft report, including the definitions used for the benchmarks (see next section), was completed in late January 2003. In mid-February, NCBW sent an email to each of the 49 state DOT bicycle/pedestrian coordinators (plus the coordinator for the District of Columbia) who had provided data to us. In that email we defined the

benchmarks and our proposed characterization for their agency based on the responses they had provided and NCBW's review of their plan documents (as appropriate). The coordinators were asked to review the benchmarks and the assessment of their state's performance, and to respond to us with any comments or clarifications within a week. As of 25 February 2003, 13 bicycle/pedestrian coordinators have responded with changes to our proposed representation. Most of the revisions they suggested were incorporated into this report.

VALIDATION

The data for this study comes from two sources: interviews with state DOT bicycle/pedestrian coordinators and NCBW's review of state DOT bicycle and pedestrian plans or long-range plan elements. Both the initial characterization of responses from the interview and NCBW's assessment of the plan documents were provided to the bicycle/pedestrian coordinators for their review and, as noted, largely changed as they suggested. The data, presented here generally reflects the understanding, awareness, and opinions of these state DOT staff. As such, it is limited to their knowledge and interpretation of the current policies and practices of the agency for which they work. In some cases, the individuals we interviewed indicated that they had served as the "bicycle/pedestrian coordinator" for only a short time. Others noted that their agency was highly decentralized and that practices varied between districts or regions.

Given this, we believe the data as reported is valid for the purposes of this report. We also believe that it will be important to continue the assessment process by seeking additional input and validation from other sources in each state (e.g., from other organizations and individuals).

BENCHMARKS AND INDICATORS

To establish benchmarks for the performance of state DOTs, we reviewed various federal and national statements in the form of legislation, regulation, policies, guidelines, and recommended practices pertaining to the topics under study. Using these sources, we identified a benchmark for planning, accommodating bicycles, accommodating pedestrians, and for special projects (i.e., safe routes to school programs). Then, using the data we collected, we defined an indicator for each. In this way, we assessed the current performance of each state DOT by comparing the indicators to the benchmarks.

Statewide Long-Range Plan

The *Intermodal Surface Transportation Efficiency Act of 1991* (P.L. 102-240), ISTEA, required each state DOT to develop a statewide long-range transportation plan. In addition, ISTEA required the state to develop a long-range plan for bicycle transportation and pedestrian walkways and to incorporate this plan into the long-range transportation plan.⁶ The *Transportation Equity Act for the 21st Century* (P.L. 105-178), extended this requirement noting that state plans should include pedestrian walkways and bicycle transportation facilities.⁷

The Federal Highway Administration (FHWA) *Guidance* on bicycle and pedestrian provisions reiterates the call for each state to develop a long-range transportation plan with a bicycle and pedestrian plan element.⁸ In addition, the FHWA states that these plan elements should include, among other things,

“Vision and Goal Statements, and Performance Criteria:

“The vision statements express concisely what the plan is expected to accomplish. ... The goals to reach the vision, and the time frame for reaching each goal should be spelled out. They should be clear and objectively measurable. ... Network and performance criteria also should be developed. ...”

BENCHMARK 1: Statewide Long-Range Plan

For the long-range plan benchmark, we identified two criteria:

1(a): The state DOT has a long-range bicycle and pedestrian plan element.

1(b): If so, the plan element conforms to the guidance issued by the FHWA.

Indicator

For 1(a) we set the minimum requirement for having a plan as a document entitled bicycle plan, bicycle and pedestrian plan, or similar; or, a chapter or section on bicycling and walking in the statewide multi-modal long-range transportation plan, if the chapter or section had the same format and scope as the chapters on other modes.

For 1(b) we reviewed the plan document provided to us by the DOT bicycle/pedestrian coordinator and noted a “yes” if the plan specified measurable objectives by which to evaluate whether or not the goals of the plan are being met.

Accommodates Bicycles

Since 1981, the various editions of the American Association of State Highway and Transportation Officials' (AASHTO) bicycle guide have included a statement to the effect that all highways (except those where cyclists are legally prohibited) should be designed and constructed under the assumption that they will be used by bicyclists.⁹

TEA-21 called for additional attention to accommodating both bicycles and pedestrians by directing the Secretary of the US Department of Transportation (USDOT) to develop guidance on various approaches to accommodating bicycles and pedestrian travel."¹⁰ In 2000, the USDOT issued this design guidance as "A Recommended Approach."¹¹ Under the heading of "Purpose" the USDOT states that this report is

"... a policy statement adopted by the United States Department of Transportation. USDOT hopes that public agencies, professional associations, advocacy groups, and others adopt this approach as a way of committing themselves to integrating bicycling and walking into the transportation mainstream."

The key principle for the policy statement is given as **'bicycling and walking facilities will be incorporated into all transportation projects** unless exceptional circumstances exist" (emphasis in original). The report and subsequent FHWA documents clarify that such "exceptional circumstances" would include one or more of three conditions:

- ?? bicyclists and pedestrians are prohibited by law from using the roadway
- ?? the cost would be excessively disproportionate (i.e., defined as exceeding 20 percent of the cost of the overall transportation project)
- ?? where sparsity (*sic*) of population or other factors indicate an absence of need.

In February 2000, the Federal Highway Administrator issued a memo to the Division Administrators (an FHWA manager in each state), conveying the USDOT "Design Guidance Language," and directing each division office to "... pass along the Design Guidance Language to the state DOTs for their use, and work with them in its implementation."¹²

BENCHMARK 2: Accommodates Bicycles

The state DOT routinely includes accommodations for bicycles in all state highway projects.

Indicator

We considered a state DOT as meeting this benchmark if the bicycle/pedestrian coordinator stated that the agency (1) has adopted the USDOT/FHWA Design Guidance Language, or follows this guidance without formally adopting it; and (2) routinely includes bicycle accommodations in all projects, unless there are exceptional circumstances present.

Accommodates Pedestrians

There is broad consensus among national organizations that sidewalks should be provided along streets and highways in urban areas (with the possible exception of short, low-volume streets such as cul-de-sacs). Note these various citations, from among many others in the AASHTO “Green Book”¹³, on providing pedestrian sidewalks in conjunction with street and highway projects:

“As a general practice, sidewalks should be constructed along any street or highway not provided with shoulders, even though pedestrian traffic may be light.” (p. 362)

“Sidewalks used for pedestrian access to schools, parks, shopping areas, and transit stops and placed along all streets in commercial areas should be provided along both sides of the street.” (p. 400)

“In residential areas, sidewalks should be provided on at least one side of all local streets and are desirable on both sides of the street.” (p.402)

“Arterial streets may accommodate both vehicles and pedestrians; therefore, the design should include sidewalks, crosswalks, and sometimes grade separations for pedestrians.” (p. 488)

The Institute of Transportation Engineers (ITE) recommended practice for pedestrian facilities states that, “All roadways should have some type of walking facility out of the vehicular traveled way included in the initial construction.”¹⁴ The ITE’s guidelines for installing sidewalks call for providing sidewalks on both sides of most roadways.

A recent study funded by FHWA was more direct in its guidelines for sidewalk construction, “All new construction must include places

for people to walk on both sides of a street or roadway. New construction in urban and suburban areas should provide sidewalks. ... If there is money for a road, there is money for a sidewalk. ... Even in rural areas, people do want to walk and such facilities should be provided.”¹⁵

The Public Rights-of-Way Access Advisory Committee (PROWAAC) to the U. S. Access Board, in developing guidelines for pedestrian facilities covered by the Americans with Disabilities Act (ADA) approved a resolution calling for sidewalks to be provided whenever a road is constructed or reconstructed in a public right-of-way in an urbanized area.¹⁶

Finally, as noted above, the USDOT/FHWA’s “Design Guidance Language” calls for incorporating walking facilities in all transportation projects unless exceptional circumstances exist.¹⁷

BENCHMARK 3: Accommodates Pedestrians

The state DOT includes sidewalks in all state highway projects in urban areas.

Indicator

We considered a state DOT as meeting this benchmark if the bicycle/pedestrian coordinator responded in the affirmative to the following three questions:

- (a) Are sidewalks included in all new state highway projects in urban areas (except where pedestrians are prohibited)?¹⁸
- (b) Are sidewalks included in most state highway reconstruction projects in urban areas?
- (c) Are sidewalks generally included in state highway projects in urban areas?¹⁹

Special Programs

There are other activities and programs that the state DOTs can – and in some cases should – be undertaking to ensure that people are provided safe, easy, and convenient opportunities to walk and bike on public roadways. Some of these, such as staff training, are essential to improving practice; others, like safe routes to school programs, serve to demonstrate an awareness of the needs of special populations too often overlooked in traditional highway planning, design, and operations.

BENCHMARK 4: Special Programs

This topic does not lend itself to an objective measure of performance other than whether there are any special programs under way.

Indicator

We asked state DOT bicycle/pedestrian coordinators whether their agency had some form of a Safe Routes to Schools program. We considered a state DOT as having a safe routes program if the program is statewide (or there is a pilot program underway with the intention of creating a statewide program), and if the state DOT is directly involved in its funding, planning and execution.

We then gave the bicycle/pedestrian coordinators an opportunity to discuss other DOT initiatives. They cited a variety of projects, including: training engineers, designers and planners on bicycle and pedestrian issues; creating safety brochures; improving agency plans, policies and procedures; building trails; improving links to transit; creating statewide bike routes; creating maps; and the like.

RESULTS

We collected data from the bicycle/pedestrian coordinators of 49 state DOTs and the District of Columbia.²⁰ In addition, we reviewed the state bicycle and pedestrian plan or long-range plan element for all states having such a plan. The findings for each benchmark are summarized and included in a table with the relevant data collected from each state (see next page).

	1(a)	1(b)	2	3(a)	3(b)	3(c)	3	4	
Benchmark	BIKE/PED PLAN?	PLAN MEETS	MEET BIKE	SIDEWALKS IN NEW	SIDEWALKS IN RECON-	SIDEWALKS GENERALLY	MEET PED	STATEWIDE SAFE ROUTES	OTHER STATEWIDE
STATE		FHWA GUIDANCE?	BENCHMARK?	PROJECTS?	STRUCTION?	INCLUDED?	BENCHMARK?	PROGRAM?	PROGRAM?
ALABAMA	no	n/a	no	no	no	no	no	pending	no
ALASKA	yes	yes	yes	yes	yes	yes	yes	no	no
ARIZONA	no*	n/a	no	no	no	no	no	no	no
ARKANSAS	yes	no	no	no	no	no	no	no	no
CALIFORNIA	no	n/a	yes	no	no	no	no	yes	yes
COLORADO	no	n/a	no	no	no	no	no	no	no
CONNECTICUT	yes	no	yes	no	no	no	no	no	yes
DELAWARE	no	n/a	yes	yes	no	n/a	no	yes	yes
DC	yes	yes	yes	yes	no	yes	no	no	yes
FLORIDA	no	n/a	yes	yes	yes	yes	yes	no	no
GEORGIA	yes	no	yes	yes	yes	yes	yes	no	yes
HAWAII	yes	no	yes	no	yes	no	no	no	no
IDAHO	yes	yes	yes	yes	yes	yes	yes	no	no
ILLINOIS	no	n/a	no	yes	no	yes	no	no	no
INDIANA	yes	no	no	no	no	no	no	no	yes
IOWA	no	n/a	yes	yes	yes	yes	yes	no	yes
KANSAS	yes	no	no	no	no	no	no	no	yes
KENTUCKY	yes	no	yes	yes	yes	yes	yes	no	yes
LOUISIANA	yes	no		no	?	?		no	yes
MAINE	yes	yes	yes	no	no	no	no	pending	yes
MARYLAND	yes	no	yes	yes	yes	yes	yes	yes	yes
MASSACHUSETTS	yes	yes	yes	yes	yes	yes	yes	yes	yes
MICHIGAN	no	n/a	?	?	?	?		no	yes
MINNESOTA	yes	yes	yes	yes	yes	yes	yes	yes	yes
MISSISSIPPI	yes	no	no	no	no	no	no	no	no
MISSOURI	no	no	no	no	no	no	no	yes	yes
MONTANA	yes	no	yes	no	yes	yes	no	no	yes
NEBRASKA	no	no	no	no	no	yes	no	no	no
NEVADA	no	no	no	yes	yes	yes	yes	no	yes
NEW HAMPSHIRE	yes	no	no	no	no	no	no	no	yes
NEW JERSEY	no	no	yes	yes	yes	yes	yes	pending	no
NEW MEXICO	yes	no	yes	yes	yes	yes	yes	yes	yes
NEW YORK	yes	yes	no	no	no	no	no	no	yes
NORTH CAROLINA	yes	no	yes	yes	yes	yes	yes	no	yes
NORTH DAKOTA	no	n/a	yes	yes	yes	yes	yes	no	no
OHIO	no	n/a	no	no	no	no	no	no	yes
OKLAHOMA	no	no	no	yes	no	yes	no	no	no
OREGON	yes	yes	yes	yes	yes	yes	yes	no	yes
PENNSYLVANIA	yes	no	no	no	no	no	no	no	yes
RHODE ISLAND	no	n/a	yes	yes	yes	yes	yes	no	yes
SOUTH CAROLINA	no	no	no	no	yes	yes	no	no	yes
SOUTH DAKOTA	yes	no	no	no	no	yes	no	no	no
TENNESSEE	no	n/a	yes	no	no	yes	no	yes	yes
TEXAS	no	n/a	no	no	no	no	no	yes	yes
UTAH	yes	no	no	no	no	no	no	yes	yes
VERMONT	yes	no	yes	no	yes	yes	no	no	yes
VIRGINIA	no	n/a	no	no	no	yes	no	no	no
WASHINGTON	yes	no	yes	yes	yes	yes	yes	yes	yes
WEST VIRGINIA**									
WISCONSIN	yes	yes	no	no	no	yes	yes	no	yes
WYOMING	yes	no	yes	yes	yes	yes	yes	no	yes

(* Arizona plan is to be completed by mid-2003; ** West Virginia did not respond.)

State DOT Benchmark Assessment February 2003

Source: National Center for Bicycling & Walking,
*"Are We There Yet?" Assessing the Performance of State Departments of Transportation on
Accommodating Bicycles and Pedestrians*, Washington, DC, February 2003.

THE BENCHMARKING PROJECT

BENCHMARK 1: Statewide Long-Range Plan

1(a): The state DOT has a long-range bicycle and pedestrian plan element.

1(b): If so, the plan element conforms to the guidance issued by the FHWA.

Twenty-nine state DOTs and the District of Columbia reported that they have either a bike plan or a combined bicycle and pedestrian plan. Eleven years after the passage of ISTEA, over 40 percent of all state DOTs have not complied with the most basic bicycle/pedestrian planning requirement: to develop a statewide long range plan or plan element for bicycles and pedestrians.

Considering those states with plans, we then applied our indicator for Benchmark 1(b): we reviewed the plan document provided to us by the state DOT bicycle/pedestrian coordinator and noted a “yes” if the plan specified measurable objectives by which to evaluate whether or not the goals of the plan are being met.

Eight state DOTs -- Alaska, Idaho, Maine, Massachusetts, Minnesota, New York, Oregon, and Wisconsin – and the District of Columbia have plans that include measurable goals.

BENCHMARK 2: Accommodates Bicycles

The state DOT routinely includes accommodations for bicycles in allstate highway projects.

We considered a state DOT as routinely including accommodations for bicycles if the bikeped coordinator stated that the agency (1) has adopted the USDOT/FHWA Design Guidance Language, or follows this guidance without formally adopting it; and (2) routinely includes bicycle accommodations in all projects, unless there are exceptional circumstances.

Twenty-five state DOTs reported that they routinely accommodate bicycles in all projects.²¹

BENCHMARK 3: Accommodates Pedestrians

The state DOT includes sidewalks in all state highway projects in urban areas.

Eighteen state DOTs responded “yes” to the three questions that comprise the indicator for this benchmark: (a) includes sidewalks in all new projects in urban areas (except where pedestrians are prohibited); (b) includes sidewalks in most reconstruction projects in urban areas; and (c) includes provisions for pedestrians in typical DOT projects in urban areas.²²

BENCHMARK 4: Special Programs

Eleven state DOTs reported that they have a Safe Routes to Schools program or pilot programs, with three additional states saying that they were in the process of developing such a program.

We then gave the state DOT bicycle/pedestrian coordinator an opportunity to discuss other bike-ped initiatives currently under way. They cited a variety of projects including: providing training for engineers, designers and planners on bike-ped issues; creating safety brochures; improving their plans, policies and procedures; building trails; improving links to transit; creating statewide bike routes; creating maps; and the like. Thirty-four bicycle/pedestrian coordinators reported programs of this type.²³

DISCUSSION

Most state departments of transportation do not now meet the benchmarks we have identified for bicycle and pedestrian planning, accommodation (design), and special programs.

Developing Effective Plans

In the data we have reviewed thus far, just over half of all state DOTs and the District of Columbia report that they have a long-range bicycle and pedestrian plan or long-range plan element, notwithstanding that this is a statutory requirement, and just over ten percent of the state DOTs have plans with measurable goals, as called for in the FHWA planning guidance.

One of the few state plans to meet the latter criterion – the bicycle plan for Maine by the Maine DOT – provides a positive example. Under “vision and goals,” it states:

“The vision for Maine’s bicycle transportation system will be met by achieving the following three goals.

• Double the percentage of bicycle trips as outlined in the ‘National Bicycling and Walking Study’ by the year 2000 (the plan was created in 1995) and exceed that goal in subsequent years;

• Reduce serious bicycle-involved accidents by ten percent as outlined in the ‘National Bicycling and Walking Study’ by the year 2000 and exceed that goal in subsequent years; and

• Create a safe, convenient and pleasant bicycle transportation system which meets the needs of all cyclists by the year 2015.”²⁴

The first two goals are clear and measurable, although the post-2000 performance measure should be more precise). The third goal is good, but impossible to measure. Statements like the latter are typical of most of the bicycle and pedestrian plans we reviewed.

Contrast this degree of clarity from the 1995 Maine DOT plan with the following statements taken from the recently completed plan of the Maryland DOT:

“Performance measures are important as they represent degrees of success towards achieving an intermodal system that fully accommodates bicyclists and pedestrians of all levels of ability.” (Italics in original.)²⁵

While the plan acknowledges the significance of performance measures and offers several it has or will begin to collect data on, it presents no measurable goals based on these data. This approach neither conforms to the FHWA planning guidance nor does it commit the agency to achieve specific progress.

Good plans are important. They define a vision in terms of the desired outcomes. They define the agency’s mission and role, and establish responsibility. They set goals and measurable objectives. And, they provide a template to guide the allocation of resources. Given the findings of this assessment, something more will be required to ensure that the state DOTs develop good plans for bicycles and pedestrians.

Routinely Accommodating Bicycles

Twenty-five state DOTs indicated they routinely accommodate bicycles in state highway projects. Other state DOT bicycle/pedestrian coordinators noted the absence of a stated priority in local plans, the reluctance of their agency to mark bike lanes for fear of potential liability, funding limitations, right-of-way and other terrain limitations, and the lack of standards to apply as among the reasons why their agency does not now meet this benchmark. Note, however, that these concerns are not deterring other state DOTs from routinely implementing these same kinds of improvements.

It seems reasonable to conclude that the reluctance of some state DOTs to routinely include accommodations for bicycles has more to do with a lack of desire and commitment than it does with a lack of opportunity. Likely, it will take some sort of mandatory performance measure to ensure that all streets and highways on which bicycles are permitted are, in fact, designed to accommodate this use, as called for in the USDOT/FHWA guidance.

Providing Sidewalks in Urban Areas

The current situation for pedestrians appears to be even worse. While all of the various national policy statements and guidelines are consistent in calling for sidewalks along all streets and highways in urban areas, just over a third of the state DOTs indicate they routinely include this essential accommodation for pedestrians in state highway projects.

Even when we relaxed our indicators to the point of asking “are sidewalks generally included in state highway projects within urban areas,” twenty-two state DOT bicycle/pedestrian coordinators answered “no.” They described how the state DOT took the lead from local communities on whether to construct sidewalks, that sidewalks would be replaced in reconstruction projects but not constructed otherwise, or that sidewalks would be more likely to be constructed if local jurisdictions paid a percentage of the cost, and so on.

Most state DOTs do not currently treat sidewalks as an essential element of good road design in urban areas. This suggests that recommended policies, voluntary guidelines, and recommended practices cannot ensure that sidewalks will be routinely provided in urban areas. Again, it is likely that a mandate of some kind will be required to ensure the routine accommodation of pedestrians with sidewalks in urban areas

Implementing Safe Routes to School Programs

Just over a quarter of state DOTs are involved in some form of statewide safe routes to school program. Unfortunately, fewer than five state DOTs are involved with a safe routes to school program that entails to allocation of significant funds.²⁶ All state DOTs should develop implement comprehensive, statewide safe routes to school programs. Various interests are already campaigning for establishment of a nationwide safe routes to school program in the reauthorization of TEA-21.²⁷

It is encouraging to note that two-thirds of all state DOT bicycle/pedestrian coordinators reported that their agency was involved with other programs related to bicycling and walking. The state DOTs should develop additional initiatives to help achieve positive long-term results:

- ?? collect good data on bicycling and walking, including the characteristics of users and numbers of trips taken by bike and on foot,
- ?? focus on reducing the incidence of bicyclist and pedestrian injuries and fatalities while increasing use,
- ?? coordinate with local governments, bicycle and pedestrian advocates, public health agencies, smart growth groups, business organizations, tourism departments, schools, parks and recreation agencies, and others to make bicycle and pedestrian

accommodations an element of smart public policy,
and

?? support bicycle and pedestrian safety programs in the schools through the development and implementation of curricula that not only teach children how to walk and bike safely and confidently, but show children the environmental, personal, and health advantages of these transportation modes.

Conclusion

All of this should not be taken as suggesting the absence of any improvements since the passage of ISTEA. With public health officials sounding the alarm that we are getting increasingly obese and less active on a population-wide basis, and that this is directly related to an increased incidence of chronic disease, we must do more to provide opportunities for people everywhere to walk and bicycle. With our air and water quality continuing to be threatened by vehicle emissions, as our dependence on foreign oil increases, as our highways become more congested, and as our public finances become more strained, improving conditions to increase the levels of bicycling and walking is both smart and strategic. And, it seems that at least some state departments of transportation are getting the message and have begun to address the needs of bicyclists and pedestrians in the planning and design of streets and highways.

Still, it is clear from this assessment that **“No, we are not there yet.”** A substantial gap exists between benchmarks we have identified (based on the policies and recommended practices of the USDOT, FHWA, AASHTO, and ITE) and the current performance of most state departments of transportation. In future studies, we hope to find significant progress by all state DOTs toward achieving these benchmarks.

REFERENCES

- 1 Koplan JP, Dietz WH. Caloric Imbalance and Public Health Policy. *JAMA*. 1999;282:1579-1581.
- 2 "FHWA Guidance: Bicycle and Pedestrian Provisions of Federal Transportation Legislation", February 24 1999.
- 3 A copy of the memo is available at http://www.bikewalk.org/assets/Reprots/StateDOT_A.doc
- 4 ISTEA (P.L. 102-240, § 217) requires each State to fund in the State department of transportation a position of bicycle and pedestrian coordinator.
- 5 The West Virginia DOT did not respond to our questions; we spoke directly with the State DOT bike-ped coordinator as well as public affairs office.
- 6 P.L. 102-240, § 135(e) Statewide planning.
- 7 TEA-21 (P.L. 105-178) § 1204 Statewide Planning.
- 8 FHWA, *Guidance, Appendix 3*, available at:
http://www.fhwa.dot.gov/environment/bikeped/bp_guid.htm#App-3
- 9 See AASHTO, *Guide for Development of New Bicycle Facilities: 1981*, p. 8, and AASHTO, *Guide for the Development of Bicycle Facilities*, 1999, p. 1.
- 10 P.L. 105-178, § 1203(b) Design Guidance.
- 11 USDOT, *Accommodating Bicycle and Pedestrian Travel: A Recommended Approach*, 2000.
- 12 FHWA Policy Memorandum, *Action: Bicycle and Pedestrian Design Guidance Language*, 28 February 2000, available at: <http://www.fhwa.dot.gov/environment/bikeped/bpdgl.htm>
- 13 AASHTO, *A Policy on Geometric Design of Highways and Streets*, 2001.
- 14 ITE, *Design and Safety of Pedestrian Facilities: A Recommended Practice*, 1998.
- 15 FHWA, *An Analysis of Factors Contributing to 'Walking Along Roadway Crashes': Research Study and Guidelines for Sidewalks and Walkways*, Report # FHWA-RD-01-101, 2002, (Appendix B).
- 16 PROWAAC, *Final Report: Building a True Community*, 2001, Appendix C.
- 17 USDOT, *op.cit.*
- 18 We counted as a "yes", responses including phrases like, "yes, unless the cost would be prohibitive".
- 19 None of these three questions originally included the phrase "in urban areas". We subsequently considered an answer to be affirmative if the coordinator noted that, indeed, the answer was "yes" in urban areas, but "no" in rural areas.
- 20 We received no response to our questions from the West Virginia DOT.
- 21 Data were either insufficient or lacking for Louisiana and West Virginia.
- 22 Data were either insufficient or lacking for Louisiana and West Virginia.
- 23 We received no response to our questions from the West Virginia DOT.
- 24 Maine DOT, *You Can Get There From Here*, Vol. 1, January 1995.
- 25 Maryland DOT, *Twenty Year Bicycle and Pedestrian Access Master Plan*, October 2002.
- 26 California has the most ambitious program, established (and reauthorized) by the state legislature. See <http://www.dhs.ca.gov/routes2school/> for additional details.
- 27 See, for example: http://www.americabikes.org/resources_policy_saferoutes.asp