

National Bicycling and Walking Study

Ten Year Status Report

October 2004

“This report is about expanding options for personal transportation. In particular, it is about making the changes needed in America’s transportation system to encourage greater use of human-powered travel modes. It is about two of the oldest and simplest – and in many ways most intelligent – means of transportation available.

It is about bicycling and walking.”

- Introduction to **National Bicycling and Walking Study**, 1994¹

Chapter One: Introduction and Background

Note: This Ten-Year Status Report is an update of the Five-Year Status Report released in April 1999. This report identifies the latest data available, and updates progress since 1999. It consists of original material from the 1999 report, revised material, and new material.

In 1990, the Federal Highway (FHWA) Administrator described bicycling and walking as "the forgotten modes" of transportation. For most of the preceding decade, these two nonmotorized transportation options had been largely overlooked by Federal, State, and local transportation agencies. An average of just \$2 million of Federal transportation funds were spent each year on bicycle and pedestrian projects, and the percentage of commuting trips made by bicycling and walking fell from a combined 6.7 percent to 4.4 percent.²

In the same year, the U.S. Department of Transportation (USDOT) adopted a new national transportation policy that, for the first time, specifically sought to "increase use of bicycling, and encourage planners and engineers to accommodate bicycle and pedestrian needs in designing transportation facilities for urban and suburban areas", and "increase pedestrian safety through public information and improved crosswalk design, signaling, school crossings, and sidewalks." This policy signaled an increase in attention to bicycling and walking.

The U.S. Congress wanted to know how the Department proposed to increase bicycling and walking while improving the safety of the two modes, and in fiscal

¹ The National Bicycling and Walking Study – Transportation Choices for a Changing America; Final Report, FHWA, 1994, FHWA-PD-94-023.

² Journey to Work Trends in the United States and its Major Metropolitan Areas, 1960-2000, FHWA, 2003, FHWA-EP-03-058.

year 1991 appropriated \$1 million to complete the *National Bicycling and Walking Study* (NBWS). The legislation outlined five specific tasks:

1. Determine current levels of bicycling and walking and identify reasons why they are not better used as a means of transportation.
2. Develop a plan for increased use and enhanced safety of these modes and identify the resources necessary to implement and achieve this plan.
3. Determine the full costs and benefits of promoting bicycling and walking in urban and suburban areas.
4. Review and evaluate the success of promotion programs around the world to determine their applicability to the role required of the U.S. Department of Transportation to implement a successful program.
5. Develop an action plan, including timetable and budget, for implementation of such Federal transportation policy.

Throughout 1991, input for the study was gathered from a wide variety of sources including staff from the modal administrations within the Department, agency field staff, State and local bicycle and pedestrian coordinators, a group of national experts, and from the general public. A *Federal Register* notice, published in February 1991, generated more than 500 comments that were almost all strongly supportive of efforts to improve conditions for bicycling and walking.

In 1992, a series of 24 case studies was commissioned to investigate different aspects of the bicycling and walking issue. These reports gathered a wealth of information on bicycling and walking from around the world and provided a snapshot of the state of bicycling and walking in the United States in the early 1990s. The studies also highlighted information gaps, identified common obstacles and challenges to improving conditions for the nonmotorized traveler, and suggested possible activities and a leadership role for the Department.

On April 22, 1994, the Federal Highway Administrator and National Highway Traffic Safety Administrator walked the final report of the *National Bicycling and Walking Study* from the Department of Transportation to the U.S. Congress. The study contained two overall goals:

- Double the percentage of total trips made by bicycling and walking in the United States from 7.9 percent to 15.8 percent of all travel trips; and
- Simultaneously reduce by 10 percent the number of bicyclists and pedestrians killed or injured in traffic crashes.

In addition to these goals, the *Study* identified a nine-point Federal Action Plan with 60 specific activities for the Office of the Secretary (OST), Federal Highway Administration (FHWA), National Highway Traffic Safety Administration (NHTSA), Federal Transit Administration (FTA), and Federal Railroad Administration (FRA);

and a five-point State and Local Action Plan with a range of suggested activities for State and local agencies.

In 1999, the U.S. Department of Transportation released a five-year report³ documenting its response to the *National Bicycling and Walking Study* and the goals and action plans identified in the *NBWS*.

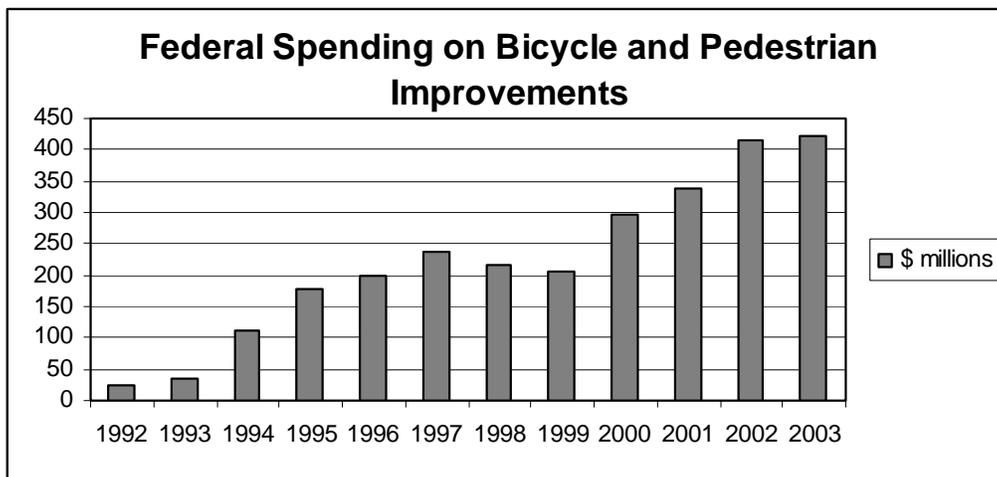
This report builds on the previous work to assess the Department of Transportation's activities and progress in respect to the *National Bicycling and Walking Study* goals and action plans in the ten years since the Study was released. Chapter 2 provides an overview of progress towards the two national goals and the Federal, State and local action plans. Chapter 3 discusses the status of bicycling and walking within the Department of Transportation ten years after the release of this landmark study. Chapter 4 identifies conclusions and recommendations for action that can reinvigorate the Department's commitment to achieving the overall goals of the study. A detailed assessment of how the Department has responded in the last five years to each of the 60 activities in the nine-point Federal Action Plan is provided in Appendix 1. Appendix 2 presents the detailed assessment of the Department's response that was prepared for the first five-year report. Appendix 3 presents funding information for bicycle and pedestrian projects using Federal-aid funds.

³ National Bicycling and Walking Study Five Year Status Report, FHWA, 1999, <http://www.fhwa.dot.gov/environment/bikeped/study.htm>

Chapter 2

Assessing the Impact of the National Bicycling and Walking Study

The *National Bicycling and Walking Study* was a landmark report that ushered in a period of unparalleled progress for bicycling and walking issues. Soon after Congress commissioned the *Study*, it also passed the Intermodal Surface Transportation Efficiency Act (ISTEA), which made available billions of dollars of transportation funds, which could be used for a range of transportation projects, including bicycling and walking improvements. These bicycle and pedestrian projects can access funding from Surface Transportation Program (STP) (including Transportation Enhancements and Highway Safety funds), Congestion Mitigation and Air Quality Program, National Highway System funds, and Federal Lands Highway funds. Spending of Federal transportation funds on these two modes rose from \$6 million in 1990 to more than \$238 million in 1997. In 1998, Congress passed the Transportation Equity Act for the 21st Century (TEA-21). Spending of Federal transportation funds on bicycling and walking improvements declined briefly under TEA-21 as new policies were implemented, but then rose from \$204 million in 1999 to \$422 million in 2003.⁴



Many States and localities rediscovered bicycling and walking in the 1990s, and began devoting staff and financial resources to the creation of a more bicycle-friendly and walkable infrastructure. Buoyed by Federal legislation (ISTEA in 1991 and TEA-21 in 1998) that boosted support for walking and bicycling and the *National Bicycling and Walking Study* (NBWS), the number of bicycling and

⁴ In addition to spending programs for Bicycle and Pedestrian improvements, Federal legislation also established the Recreational Trails Program, which has provided nearly \$328 million to states between 1993 and 2004. More information can be found at <http://www.fhwa.dot.gov/environment/rectrails/index.htm>.

walking professionals has grown to the point that they have established their own professional association with more than 400 members. In 1990 only a handful of States and cities had bicycle coordinators and none had a pedestrian coordinator.

The *National Bicycling and Walking Study* also stands out as the first time the Federal government has ever committed itself to modal split targets, i.e. achieving a certain percentage of trips by specified modes. This lead has since been followed in both the United Kingdom and Australia.

The coupling of an increase in use with a simultaneous reduction in fatalities and injuries created a unique target that challenged the conventional wisdom that increasing use would increase crashes. Equally important, the twin goals were designed to ensure that gains in the apparent safety of the two modes were not achieved by discouraging use.

Implementing the *National Bicycling and Walking Study* was also made more challenging by the changing role of the Federal government in the early 1990s. ISTEA provided the States and local governments with significantly more control over transportation planning, funding, and decisionmaking than had been the case previously.

Therefore, in writing the *National Bicycling and Walking Study*, the USDOT had to identify an appropriate role to play in encouraging and promoting the two goals without requiring specific actions at the State and local level, even though many of the improvements necessary to achieve the goals had to be made at the State and local level. The result was the adoption of a nine-point Federal Action Plan with 60 specific activities and a five-point Recommended Action Plan for both State and local government agencies.

Doubling the Percentage of Trips Made by Bicycling and Walking

The *National Bicycling and Walking Study* (NBWS) established the target of doubling the **percentage** of trips made by bicycling and walking from 7.9 percent to 15.8 percent. In 1990, a total of 18 billion walking trips and 1.7 billion bicycling trips were reported representing 7.2 percent and 0.7 percent respectively of all trips counted by the study. In 2001, the total **number** of reported walking and bicycling trips nearly doubled to 38.6 billion, although it was only 9.5 **percent** of all reported trips.

The data were collected in the Nationwide Personal Transportation Surveys and the National Household Travel Survey. The Department views these surveys as the best available data on all types of trips, although the differences in methodology in the collection years limit their comparability.

Summary of Walking and Bicycling Trips, 1990 to 2001

	Walking Trips (billion)	Walking Trips %	Bicycling Trips (billion)	Bicycling Trips %	Combined Trips (billion)	Combined Trips %
1990 NPTS	18.0	7.2	1.7	0.7	19.7	7.9
1995 NPTS ⁵	20.3	5.3	3.3	0.9	23.6	6.2
2001 NHTS ⁶	35.3	8.7	3.3	0.8	38.6	9.5

The *NBWS* goal was based on numbers collected in the 1990 Nationwide Personal Transportation Survey (NPTS). The NPTS was repeated in 1995, approximately one year after the release of the *NBWS*. The number of walking trips had increased to 20 billion but this figure was just five percent of total trips; bicycling trips increased to more than three billion, and were still less than one percent of all trips.⁵

In 2001, the NPTS was replaced by the National Household Travel Survey (NHTS). The number of walking trips for all purposes increased significantly to 35 billion; the number of bicycling trips increased slightly to 3.3 billion.⁶

There has been a significant increase of the total number of reported bicycling and walking trips since Congress commissioned the *NBWS* in 1991. In 1990, there were a total of 19.7 billion walking and bicycling trips reported; in 2001, that **number** had nearly doubled to 38.6 billion.

The *NBWS*, however, called for a doubling of the **percentage** of trips made by bicycling and walking. This percentage has increased from 7.9 percent to 9.5 percent. The disparity between the near doubling of actual trips and the slight percentage increase can be explained by the explosive growth in total reported trips made; from 249 billion in 1990 to 407 billion in 2001. In short, reported bicycling and walking trips have increased significantly, but the number of reported driving trips has increased at a rate that eclipses that of bicycling and walking.

The first *NBWS* goal of doubling the percentage of walking and bicycling trips has not been accomplished; although the reported *number* of bicycling and walking trips has increased.

⁵ The NPTS survey methodology changed between the 1990 and 1995 surveys from a telephone survey to a travel diary survey. This resulted in an increase in the reported number of trips overall, although it likely better reflects actual travel.

⁶ Changes in survey methodology from 1995 to 2001 could have increased the number of trips reported. For example, in 2001, direct interviewer probes were asked of respondents to report any "forgotten" bike or walk trips. Also, persons ages 0 to 5 were included in 2001, but not in 1995.

The 1999 *NBWS Five-Year Progress Report* identified this trend and stated that "Increasing the percentage of overall trips made by bicycling and walking is going to be a tough challenge if the level of overall travel continues to increase at this rate." The same remains true in 2004.

Also, although data collected from the NPTS in 1990 and 1995 and the NHTS in 2001 indicate more walking and bicycling trips, the methodology for each survey has been different. Until data are collected using the same survey and methods, an accurate evaluation of the change in level of bicycling and walking in the United States cannot be made.

Another source of information on utilitarian bicycling and walking is the U.S. Census "Journey to Work" survey. The survey is conducted every ten years and reports travel to and from work for people aged 16 or above. In 1990, 4.3 percent of workers, or 4.9 million people, walked or rode bicycles to work. In 2000, the percentage fell to 3.3 percent, and the number fell to 4.25 million people riding bicycles or walking to work. Although discouraging with regards to meeting the *NBWS* goal, according to the 2001 NHTS, less than 15 percent of all trips are journeys to and from work; over 85 percent of all trips are not accounted for by Census data.

A potential explanation for the reported increase in bicycling and walking trips identified by the NHTS and the relatively stable number of walking and bicycling trips to work shown by the Census Journey to Work survey is that there has been an increase in bicycle and walking trips for non-work related transportation or recreation.

The Bureau of Transportation Statistics (BTS) monthly *Omnibus Household Survey* found in 2001-2002 that nearly two million adult US residents bicycle to work or as part of their job and more than ten million walk to work or as part of their job. These data indicate that nearly 12 million adults, or approximately nine percent of all adult workers, regularly bicycle or walk related to their work.⁷

Although the goal of doubling the percentage of trips by bicycling and walking, as called for by the *NBWS*, has not been met, there are other indicators that walking and bicycling remain important modes of transportation or recreation in the U.S.

- Results from the *National Survey on Recreation and the Environment 2000* indicate that over 80 million U.S. residents bicycle for fun or exercise.

⁷ The apparent disparity between Census Journey to Work data, and the BTS Omnibus data are most likely the result of different survey methodologies. For example, the Census data were collected using a self-reported survey while the BTS data were collected using telephone interviews. They also collect slightly different information; the Census looks only at going to and from work, while the BTS Omnibus survey looks at travel to and from work, as well as walking and bicycling as part of work.

- The BTS monthly *Omnibus Household Survey* found that, during 2002, an average of 143.7 million U.S. residents (72 percent of the non-institutionalized adult population) walked, ran, or jogged an average of 13 days each month.
- The *Omnibus Household Survey* also found an average 33 million adult U.S. residents (16 percent of the non-institutionalized adult population) rode a bicycle an average of six days a month, for an average of more than an hour on a typical day.
- The 2002 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, jointly sponsored by NHTSA and BTS, found that 27.3 percent of the driving age public rode a bicycle during the summer of 2002.

The challenge confronting the Department to meet the goal of doubling the percentage of bicycling and walking trips, is to continue increasing the total number of bicycling and walking trips while simultaneously encouraging other travel modes to switch to bicycling and walking. The first part of this might be accomplished simply by continuing current activities including current programs and policies, since walking and bicycling trips have increased. The second part, affecting overall vehicle trips, however, falls outside the scope of activities included in this report, which deals only with bicycle and walking-related goals.

Recent surveys conducted by the Department, such as the *2002 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors*, offer insight into why and how people walk or bicycle, and can help USDOT, States, and local governments determine how to increase walking and bicycling. For example, a BTS *Issue Brief* report using data from the National Survey conducted during the summer of 2002 found that bicyclists riding in areas without bike paths or lanes are nearly twice as likely to feel endangered (mostly by motorists) as are bicyclists with paths or lanes, and more than four times as likely to be dissatisfied with how their community is designed for making bicycling safe. Knowing this and other forthcoming information from the *2002 Survey*, communities and States can better understand walkers and bicyclists, and might lead to better plans for providing the most appropriate new infrastructure and programs to encourage more walking or bicycling.

Reducing Fatalities and Injuries Suffered by Bicyclists and Pedestrians

In 1993, the last year prior to the release of the *NBWS*, 5,649 pedestrians and 816 bicyclists were killed in collisions with motor vehicles. In 2003, using preliminary data,⁸ these numbers had fallen to 4,762 and 626 respectively. These numbers reflect a 17.3 percent decline in pedestrian fatalities and a 23.3 percent drop in bicycle fatalities. In the past year, between 2002 and 2003, pedestrian and bicyclist fatalities fell by 2.8 percent and 5.4 percent, respectively. Overall, since the *NBWS* was released, combined pedestrian and bicyclist fatalities have dropped 18 percent. The second *NBWS* goal of reducing fatalities and injuries suffered by bicyclists and pedestrians by 10 percent has been surpassed.

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Over the same period, the number of pedestrians injured in collisions with motor vehicles fell from 94,000 to 68,000 (27.7 percent) and the number of bicyclists injured in collisions with motor vehicles fell from 68,000 to 44,000 (35.3 percent). Between 2002 and 2003, pedestrian and bicyclist injuries declined by 4.2 percent and 8.3 percent, respectively.

Bicyclists and pedestrians represented more than 16 percent of all traffic fatalities in 1993, and then dropped to 12.3 percent in 2003. At the same time there was an increase in overall traffic fatalities of more than seven percent. The declines between 1993 and 2003 in pedestrian fatalities (17.3%), pedestrian injuries (27.7%), bicyclist fatalities (23.3%), and bicyclist injuries (35.3%) have exceeded the target set by the *National Cycling and Walking Study*.

Progress on the Federal Action Plan

The role of the Federal government, and specifically the Department,⁹ in implementing the *NBWS* was defined in an ambitious nine-point Federal Action Plan that identified 60 specific action items to be carried out by the Department. Responsibility for each of the action items was assigned to at least one of the modal administrations within the Department (e.g. FHWA, NHTSA, FTA, FRA, or OST).

⁸ Preliminary Estimates of 2003 Highway Fatalities, released April 28, 2004; <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/PPT/2003EARRelease.pdf>.

⁹ The *NBWS* established an action plan within the USDOT as the primary implementing agency. Other Federal agencies, including the Environmental Protection Agency, Centers for Disease Control and Prevention (Department of Health and Human Services), and the National Park Service (Department of the Interior), also have active programs to support an increase in walking and bicycling.

Action has been taken on at least 55 of the 60 items, and while many of the items are ongoing, more than one quarter of the items can reasonably be said to be complete. There are only five items where no identifiable action has yet been taken and on at least one of these the Department has either no responsibility for the specific action or the action has been performed by other agencies and no longer requires the Department's action.¹⁰

The final action item adopted in the *NBWS* was for the Department to serve as a positive national presence and role model in relation to bicycling and walking. Through its work in implementing the overwhelming majority of the Federal Action Plan and other related activities, the Department has clearly shown States and local governments the kind of leadership, direction, encouragement, and support for bicycling and walking that was intended.

In particular, the Department has made significant accomplishments in five key areas:

a) Publications. In the ten years since the *NBWS* was released, the Department has produced a wealth of literature - research reports, fact sheets, design and sign guides, manuals, brochures, training materials, etc. - on all aspects of improving conditions for bicycling and walking. Most of these publications are available on the Department's web sites. These publications have enabled State and local government agencies and advocacy groups to ensure the design and planning of a more walkable and bicycle-friendly infrastructure, stage successful safety events and training courses, enforce safe road user behavior, combine transit with bicycling and walking, promote public involvement in the transportation planning process, reach new constituencies with important safety messages, and inform planners, engineers, safety experts, accessibility advocates, and the public about bicycling and walking issues.

b) Research and Technology Transfer. The Department has undertaken a comprehensive multi-year bicycle and pedestrian research program that includes original research, project evaluations, several syntheses of existing research work in critical areas (including some foreign experience), training courses to disseminate research findings, awareness campaigns, and other activities designed to apply existing knowledge in the field. The research and technology transfer program has addressed many of the issues identified in the *NBWS* Federal Action Plan including studies of crash types and countermeasures, innovative intersection designs to accommodate bicyclists and pedestrians, and methods to estimate travel behavior by bicyclists and pedestrians.

¹⁰ A full assessment of the actions taken in the past five years (1999-2004) under each item is provided in Appendix 1. Appendix 2 provides an assessment of the actions taken by USDOT between 1994 and 1999.

c) Outreach and Partnerships. Recognizing that improvements for bicycling and walking will only come about with the concerted and combined efforts of many agencies and interested parties, the Department has actively sought to partner with a wide range of groups and other agencies. The Department has developed a strong relationship with the State Department of Transportation bicycle and pedestrian coordinators and has worked with the American Association of State Highway and Transportation Officials (AASHTO) and the Institute of Transportation Engineers (ITE) on specific projects. There has been improved collaboration between modal administrations within the Department (e.g. working with the Federal Railroad Administration for the first time) and between the Department and other Federal agencies through regular meetings and joint projects. The Department has successfully used printed materials, the internet, training courses, clearinghouses, conferences, events, and other media to effectively disseminate information about bicycling and walking to a diverse audience.

d) Increased Attention to Pedestrian Issues. Actions taken in response to the Federal Action Plan, as well as the nationwide emergence of pedestrian advocacy organizations, have substantially boosted the level of attention paid to walking issues by both the Department and State and local agencies. Through a range of activities such as the development of a Pedestrian Safety Roadshow, support for Safe Routes to School and annual Walk to School Day events, publication of Spanish-language pedestrian safety materials, and collaboration with the health promotion and injury prevention communities, the awareness of pedestrian issues is higher than at any time in the past three decades. There has also been an increased emphasis on issues affecting access to the transportation system for people with disabilities.

e) Increased Funding for Bicycling and Walking Projects. While the most significant recent increases in funding for bicycling and walking projects occurred with the enactment of ISTEA in 1991 and TEA-21 in 1998, actions taken by the Department in response to the Federal Action Plan, such as the issuance of the "Design Guidance" language¹¹ in 2000, contribute to continuing record levels of spending on bicycling and walking initiatives across all the various funding categories administered by the Department. In addition, with more information and technical resources available about pedestrian and bicycle facilities and programs, States and local governments are increasingly using their own funds for projects and programs benefiting bicyclists and pedestrians.

¹¹ The Design Guidance included a Policy Statement encouraging the inclusion of facilities for bicyclists and pedestrians in all transportation projects unless exceptional circumstances exist. <http://www.fhwa.dot.gov/environment/bikeped/design.htm>

While the Department is proud of these and many other accomplishments in the bicycle and pedestrian arena during the past ten years, there are still some items in the Federal Action Plan that have not been addressed, or where important work still remains necessary. A partial list of these items include:

- Updating the part of the Code of Federal Regulations (CFR) relating to bicycle and pedestrian eligibility to reflect the changes made by TEA-21 and upcoming reauthorization of surface transportation legislation
- Promoting the integration of bicycling and walking with transit directly to the transit operators through training, publications, and encouragement
- Explicitly including bicycle and pedestrian considerations in the core internal planning and operations documents of the USDOT (e.g. strategic plans and performance measure plans)
- Collecting and analyzing bicycle and pedestrian use and exposure data to help determine problem behaviors leading to crashes and crash risks; and the effectiveness of safety countermeasures and other actions
- Conducting research into promoting the use of bicycling and walking and measuring the effectiveness of such programs

The Department has responded to opportunities and needed improvements to more effectively support its pedestrian and bicycle goals and Federal Action Plan. In 1999, at the five-year mark of the *NBWS*, ten items for improvement were identified. Five have now been addressed, including:

- Encouraging and assisting States and MPOs to more speedily implement bicycle and pedestrian projects using Federal transportation funds
- Undertaking research and offering guidance on the air quality and congestion relief impacts on investments in bicycling and walking infrastructure and promotions
- Developing a stronger relationship with the Department's field staff
- Providing training and technical assistance on designing accessible sidewalks and trails
- Identifying more research opportunities within the Department to meet ongoing and future research needs in the bicycle and pedestrian area

Progress on the Recommended State and Local Action Plan

The Federal role in State and local transportation decisionmaking continued to evolve throughout the 1990s. However, because most decisions affecting the safety and comfort of bicyclists and pedestrians are made at State and local levels of government, the *NBWS* provides some guidance and encouragement to States and localities as to the ways in which they could improve conditions for the nonmotorized traveler.

Based on input from State and local bicycle and pedestrian coordinators, and the findings of a number of case studies developed as part of the *NBWS*, the *Study*

outlined a five-point Recommended Action Plan (RAP) for State and local governments. The final report of the *NBWS* discussed ways in which each of the five elements of the plan could be implemented, drawing on examples from States and localities that had already made progress in these areas.

Since the *Study* came out, the Department has not undertaken a formal inventory of State and local government actions in response to the Recommended Action Plan. However, some factors indicate the States and local governments are increasing attention to pedestrian and bicycling needs:

- All State DOTs now have a designated bicycle and pedestrian coordinator.¹²
- A 2003 report about progress in State DOTs¹³ indicates some success there: 29 of the 50 States have adopted statewide bicycle or bicycle and pedestrian plans.
- Membership in the Association of Pedestrian and Bicycle Professionals¹⁴ has grown to over 400 since its founding in 1995. APBP's members work at local and state planning and transportation offices, as well as in the private sector as consultants; the growth of membership reflects many more professionals dedicated to bicycle and pedestrian issues, and further indicates that more local governments are dedicating resources to pedestrian and bicycle issues.¹⁵

General State and Local Agency Response

Action Plan Item 1. Organize a Bicycle/Pedestrian Program

Since 1994, the number of staff (or amount of staff time spent) working on bicycle and pedestrian issues at the State level appears to have more than doubled. As described above, the growth in membership of an organization of pedestrian and bicycle professionals indicates an increase in the number of staff working on these issues, although the exact numbers working at the local level on bicycle, pedestrian, or both issues cannot be easily quantified.

¹² A list of State Bicycle and Pedestrian Coordinators is maintained by the AASHTO Transportation Center for Excellence, Subcommittee on Design, at www.transportation.org/committee/design/tf_nonmotorized_bikeped.html.

¹³ William Wilkinson and Bob Chauncey, *Are We There Yet? Assessing the Performance of State Departments of Transportation on Accommodating Bicycles and Pedestrians*. National Center for Bicycling & Walking, Washington, DC: February 2003.

¹⁴ www.apbp.org

¹⁵ No centralized source of information about bicycle and pedestrian coordinators at the local level exists, so membership in the professional organization serves as the only available rough indicator of the number of professionals in the field.

Also since 1994, more than half the States and a number of local agencies have established or re-established citizen advisory committees to help guide bicycle and pedestrian programs.

Action Plan Item 2. Plan and Construct Needed Facilities

Approximately half the States report that bicycle and pedestrian facilities are now included in some or most highway projects; the remaining States usually develop bicycle and pedestrian facilities as separate or independent projects. Less than half the States have separate bicycle and pedestrian design manuals.

Most States report having an overall long range transportation plan that integrates bicycling and walking; one-third have a separate long range plan for bicycling and walking.

Action Plan Item 3. Promote Bicycling and Walking

Most States and local governments report publishing supportive literature (maps, brochures, etc), and more than half promote or organize events such as Bike-to-Work Day.

Action Plan Item 4. Educate Bicyclists, Pedestrians, and the Public

Most States and localities have produced bicycle and pedestrian safety literature; local agencies are more likely to have also provided training to children on safe walking and bicycling.

Action Plan Item 5. Enforce Laws and Regulations

Some States and localities have revised their vehicle codes and/or drivers' manuals since 1994 to better address bicycling and walking issues, others have passed child helmet laws for bicyclists.

As March 2004, 20 States (including the District of Columbia) have enacted age-specific bicycle helmet laws and more than 131 localities have enacted some type of bicycle helmet legislation.

Chapter 3

Status of Bicycling and Walking Within the Department

Staffing:

There can be little question that the treatment of bicycling and walking issues within the Department of Transportation has advanced considerably since the start of the 1990s. When Congress commissioned the *National Bicycling and Walking Study* (NBWS) in 1990, there were no more than one or two Department headquarters staff working full-time on bicycle and pedestrian issues, and fewer than five with any part-time responsibility for them. Today there are approximately ten full-time and ten part-time personnel within the Department with responsibility for bicycling and walking, as well as a dozen or more staff who are regularly involved in bicycle and pedestrian issues. A monthly meeting of Department staff in this area regularly attracts people from the Office of the Secretary, Federal Highway Administration, Federal Transit Administration, National Highway Traffic Safety Administration, Bureau of Transportation Statistics, and Federal Railroad Administration. The bicycle and pedestrian responsibilities of these personnel range from programmatic activities to research, technology transfer, surveys, and policy development.

The impressive work of the Department in implementing an ambitious Federal Action Plan, as documented in the Appendices of this report, has been achieved with limited staff and resources in relation to the size of the task. In order to complete tasks from the NBWS Federal Action Plan, provide ongoing leadership and support to States and local governments, and meet the challenging goals of the NBWS, the Department must effectively prioritize its work and make the most of ongoing program and research activities.

Mainstreaming of pedestrian and bicyclist consideration throughout the USDOT is clearly improving, but is not always achieved. Continued visible and vocal support from senior Department officials is necessary to reiterate that bicycling and walking issues are a critical part of the mission of the Department and that everyone within the agency - not just those working full-time or part-time on bicycling and walking issues - has responsibility to address the safety and accessibility of bicyclists and pedestrians.

Safety:

The downward trends in pedestrian and bicyclist fatalities and injuries during the past decade are certainly encouraging signs, as is the renewed commitment to traffic safety within the Department in general and FHWA and NHTSA in particular. Safety is one of the top stated priorities of the Department.

However, without reliable data on levels of bicycle and pedestrian activity and exposure, the enthusiasm for reported crash reductions involving bicyclists and pedestrians must be tempered by the possibility that the relative danger of the two modes may still be increasing even though fatality and injury numbers are falling.

The Department must balance the need to focus safety efforts on a wide range of safety issues including major train, truck or plane crashes, safety belt use, alcohol use and crashes, and infrastructure design with the everyday safety of the pedestrian and bicyclist. Despite crash reductions in recent years, bicyclists and pedestrians remain over-represented in crash statistics, accounting for almost 13 percent of all fatalities but only nine percent of trips and a much smaller percentage of total miles traveled.

With expected passage of a new surface transportation law (replacing TEA-21), the Department will soon have an opportunity to rebalance its safety related activities as needed.

Funding:

Clearly there has been a major increase in funding opportunities for bicycling and walking improvements that has resulted in spending on projects to benefit the two modes growing from approximately \$6 million in 1990 to more than \$422.7 million in 2003.¹⁶ In 2004, under current Federal transportation laws, virtually all the major transportation funding programs can be used for bicycle and pedestrian activities without any limit on the amount of available funds. By contrast, in 1990, many of the Federal-aid funding programs were not used for bicycle and pedestrian improvements and no State was allowed to spend more than \$4.5 million in any one year on bicycle and pedestrian projects that were not part of a larger highway project.

Despite this remarkable change, expenditures on bicycling and walking are still less than two percent of total transportation spending. Much of

¹⁶ Appendix 3 of this Report presents detailed information on Federal transportation monies provided to States for bicycle and pedestrian projects. It also presents State-by-State data on bicycle and pedestrian spending.

the ongoing spending on transportation infrastructure should take into account the needs of pedestrians and bicyclists, especially as approximately one third of the population of the United States does not have access to a motor vehicle.

Under TEA-21 (and expected under new legislation), States and localities choose how much to spend on bicycle and pedestrian safety and facilities. The Department can encourage States to spend more on bicycle and pedestrian projects and programs.

Overall Status:

The Department is supportive of bicycling and walking and has made great progress in addressing the needs of the two modes of transportation. There is certainly a much greater awareness of bicycling and walking issues compared to a decade ago. However, there is still much progress to be made in making the nonmotorized modes a routine part of the everyday activities of the Department. The final chapter of this report identifies a number of key action items that are necessary to elevate bicycling and walking to the point that they become a visible, mainstream part of the policy, programs, and projects of the Department.

Chapter 4

Conclusions and Recommendations

In the ten years since the *National Bicycling and Walking Study* (NBWS) was released, bicycling and walking issues have become more a part of the day to day activities of Federal, State, and local transportation agencies in the United States. Progress has been made towards to the twin goals of increasing use while improving the safety of the two modes.

The United States Department of Transportation has acted on the majority of the 60 items contained in the *NBWS* Federal Action Plan and has played a significant role in encouraging and enabling State and local governments to implement various elements of the *NBWS* Recommended Action Plan for State and Local Government.

However, to achieve the specific goals of the study and to realize the vision of "a nation of travelers with new opportunities to walk or ride a bicycle as part of their everyday life"¹⁷, the Department must renew its commitment to elevating bicycling and walking to become part of the transportation mainstream.

Specifically, within the next few months, and as part of developing guidance following Congressional reauthorization of surface transportation, the Department should initiate the development of a strategic plan for achieving the goals of the NBWS that is integrated into the ongoing work of the Department and addresses the following critical needs:

1. Better Document Bicycling and Walking Activity

- Develop a method of accurately recording bicycle and pedestrian trips
- Develop a method to measure and track bicyclist and pedestrian exposure rates
- Measure and track bicycle helmet use rates
- Better capture expenditure information for bicycle and pedestrian projects and programs
- Determine the impact of bicycle and pedestrian investments on air quality, public health, and other quality of life indicators,

2. Improve Internal Support and Commitment to Bicycling and Walking

- Complete the unfinished action items in the Federal Action Plan of the *NBWS*
- Include bicycle and pedestrian goals in the next Department Strategic Plan

¹⁷ National Bicycling and Walking Study, page 124.

- Incorporate bicycle and pedestrian measures into each modal administration's annual performance plans
- Integrate bicycling and walking into all appropriate administration initiatives; include specific action items to improve conditions for bicycling and walking within such initiatives
- Promote greater awareness of pedestrian accessibility issues
- Develop and implement a strategy for improving the ability of Department headquarters and field staff to address bicycle and pedestrian issues as part of their everyday functions
- Integrate bicycle and pedestrian-related activities into the research agenda of the various modal administrations and business units within each agency (to diversify funding sources and broaden the scope of research to more than safety issues)
- Promote administration support for bicycling and walking to non-bicycling and walking audiences, as well as other identified high-risk audiences.

3. Improve External Awareness and Support for Bicycling and Walking

- Actively promote a "share the road" philosophy among all road users that stresses the importance and vulnerability of bicyclists and pedestrians
- Actively promote and reward communities that adopt land use and development policies that create more bicycle-friendly and walkable communities
- Implement and evaluate a national marketing campaign to encourage people to walk and bicycle more often
- Promote campaigns that target driving behavior (e.g. speeding, pedestrian and bicycle right-of-way violations, aggressive driving) that particularly endangers bicyclists and pedestrians
- Explore opportunities for new technologies (e.g. Intelligent Transportation System products) to be deployed for the benefit of bicyclists and pedestrians

Successes in improving bicycling and walking can be identified. With recent attention on health aspects of transportation, the Department has joined with the health community to promote bicycling and walking as a means of easily achievable exercise for individuals whose health is threatened by weight and inactivity. In partnership with the Centers for Disease Control, NHTSA and FHWA have developed the *National Strategies for Advancing Bicycle Safety - A Call To Action*. Released in May 2001, the *National Strategies* seeks to change the cycling environment in significant ways by addressing five key goals:

- Motorists will share the road
- Bicyclists will ride safely
- Bicyclists will wear helmets
- The legal system will support safe bicycling
- Roads and paths will safely accommodate bicyclists.

Under each goal is a series of strategies and action steps. Different member agencies, and a number of outside agencies, have taken on each of these goals and are making real progress toward implementation. Partnerships like the *National Strategies* are an innovation unforeseen at the time when the *National Bicycling and Walking Study* was released in 1994, yet are proving to be a crucial technique for improving walking and bicycling conditions.

The opening sentence of this report recalled a 1990 statement by the FHWA Administrator that bicycling and walking were the "forgotten modes." It was perhaps a measure of how far the Department as whole had come that in 1999 the FHWA Administrator wrote that, "we expect every transportation agency to make accommodation for bicycling and walking a routine part of their planning, design, construction, operations, and maintenance activities." In 2001, the Secretary of Transportation stated "Bicycle and pedestrian facilities and programs are an integral part of our nation's transportation system for the 21st century." He also pledged the full support of the Department in "efforts to mainstream bicycling and walking facilities and programs into our Nation's transportation system at all levels of government..."¹⁸ With continued dedication and support, the Department can achieve the goals of the *National Bicycling and Walking Study*.

"Bicycling and walking can then become attractive options and valuable components within our Nation's transportation system."¹⁹

¹⁸ Letter by Secretary of Transportation Norman Mineta to Participants at the National Bike Summit, March 27, 2001; www.fhwa.dot.gov/environment/bikeped/bikesum.htm

¹⁹ *National Bicycling and Walking Study*

Appendix 1: USDOT Activities, 1994-1999

Note: This Appendix was prepared for the Five Year Progress Report in 1999. It is included here for readers to follow USDOT activities since 1994. No changes have been made to this material. Appendix 2 presents USDOT activities during 1999 to 2004.

The Federal Action Plan

Action Item 1

Provide technical guidance in the interpretation of national transportation legislation and distribute other technical information.

Action Item 2

Fully integrate consideration of bicyclist and pedestrian needs into planning; design; operational policies and procedures; and suggested usage, accident rate, and evaluation methodologies.

Action Item 3

Provide funding for a bicycle and pedestrian friendly infrastructure that includes new facilities and infrastructure retrofitting and education for all road users, and enforcement programs for all road users.

Action Item 4

Provide initial and continuing education and training for planning and engineering professionals which encourages routine consideration of the needs of bicyclists and pedestrians.

Action Item 5

Conduct promotional and awareness activities, both to increase the level of bicycling and walking for all trip purposes and to legitimize these travel modes within the transportation system.

Action Item 6

Carry out activities that increase the safety of bicycling and walking.

Action Item 7

Provide outreach to other government agencies and develop new public/private partnerships to safely increase bicycling and walking usage levels.

Action Item 8

Conduct research and develop effective methods of technology transfer.

Action Item 9

Serve as positive national presence and role model.

Action Item 1

Provide technical guidance in the interpretation of national transportation legislation and distribute other technical information.

1. Develop guidance and regulations as required to implement the bicycle and pedestrian provisions of ISTEA, including information on funding sources, State and MPO planning requirements, and the State DOT bicycle and pedestrian coordinator positions (FHWA).
2. Develop guidance as needed on the use of bicycle and pedestrian programs to meet the goals of the Clean Air Act Amendments. (OST, FHWA)
3. Distribute the findings of the National Bicycling and Walking Study and develop an implementation plan for carrying out the Federal action items. (OST, FHWA, NHTSA, FTA)
4. Develop and distribute a brochure describing and promoting opportunities in the FTA program for bicycle and pedestrian projects. (FTA)
5. Assimilate other technical information and distribute it as appropriate. (OST, FHWA, NHTSA, FTA)
6. Conduct briefings for field, State and local offices on bicycle and pedestrian program issues. (FHWA, NHTSA, FTA)
7. Provide materials on bicycle and pedestrian issues to national organizations

USDOT Response to Action Item 1

1. Develop guidance and regulations as required to implement the bicycle and pedestrian provisions of ISTEA, including information on funding sources, State and MPO planning requirements, and the State DOT bicycle and pedestrian coordinator positions (FHWA).

Actions: USDOT has

- Issued interim guidance on *Bicycle and Pedestrian Planning at the State and MPO level under the Intermodal Surface Transportation Efficiency Act* (1994).
- Delivered ten 1-day workshops on *"Bicycle and Pedestrian Planning Under ISTEA"* through the National Highway Institute (1994-1995).
- Published a *"Synthesis of Bicycle and Pedestrian Planning Under ISTEA"* (1998).
- Published the *"Bicycle and Pedestrian Provisions of the Federal-aid System"* brochure (1998).
- Issued program guidance on the *Bicycle and Pedestrian Provisions of the Federal Transportation Program* (1999) which details all the major funding sources available for bicycle and pedestrian projects.
- Issued program guidance on the Recreational Trails Program (1995, 1996/97, 1999).
- Delivered numerous ISTEA/TEA-21 presentations to workshops, conferences, and other events over the past five years.

USDOT still needs to:

- Update the 1992 guidance on the role and functions of the State bicycle and pedestrian coordinator position.
- Update 23 CFR Part 652-Pedestrian and Bicycle Accommodations and Projects (the Code of Federal Regulations) to reflect the changes made by ISTEA and TEA-21.
- Provide more guidance to FHWA Division staff, States, MPOs, and Federal Lands Highway offices on ways to integrate bicycle and pedestrian programs within their existing activities.

2. Develop guidance as needed on the use of bicycle and pedestrian programs to meet the goals of the Clean Air Act Amendments. (OST, FHWA)

Actions: USDOT has

- Included bicycle and pedestrian information in FHWA program guidance on the Congestion Mitigation and Air Quality Improvement (CMAQ) program (1996, 1999).
- Included case studies of bicycle and pedestrian projects in a variety of CMAQ publications including an interactive display unit featuring the CMAQ program.

USDOT still needs to:

- Complete research and offer guidance on quantifying the air quality and congestion relief impacts of investments in bicycle and pedestrian infrastructure and promotions.

3. Distribute the findings of the National Bicycling and Walking Study (NBWS) and develop an implementation plan for carrying out the Federal action items. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Distributed approximately 25,000 copies of the NBWS Final Report; 10,000 copies of the Executive Summary and more than 15,000 copies of the 24 case studies.
- Presented the findings of the NBWS to international conferences in Basel (Switzerland), and Perth (Australia); national conferences in Oregon, Maine, Florida, the District of Columbia; and numerous State and local events throughout the country.
- Issued a One Year Progress Report (1995).

USDOT still needs to:

- Collaborate more effectively within DOT and other Federal agencies to plan and implement the remaining action items in the National Study.

- Continue integrating the goals of the study into DOT programs and transportation plans at the State and MPO level.

4. Develop and distribute a brochure describing and promoting opportunities in the FTA program for bicycle and pedestrian projects. (FTA)

Actions: USDOT has

- Published *Bicycles and Transit: A Partnership that Works* (1998).
- Published *Improving Pedestrian Access to Transit: An Advocacy Handbook* (1998).

USDOT still needs to:

- Implement an outreach program to transit operators to assist them in developing bicycle- and pedestrian-friendly policies, projects, and programs.
- Adopt a similar approach with the Federal Railroad Administration.

5. Assimilate other technical information and distribute it as appropriate. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Published a wide variety of reports and other resources based on FHWA and NHTSA research, State and local best practices, and international experience.
- Initiated publication of two resource manuals detailing how State and local agencies should develop sidewalks and trails to meet the requirements of the Americans with Disabilities Act (due in 1999).
- Worked closely with the American Association of State Highway and Transportation Officials (AASHTO), the National Committee on Uniform Traffic Control Devices and the National Committee on Uniform Traffic Laws and Ordinances to update the bicycle and pedestrian sections of key documents; and initiated a 1-day training workshop to update bicycle and pedestrian professionals on these various changes.
- Worked in partnership with the Consumer Product Safety Council to publicize new bicycle helmet standards (March 1999).

6. Conduct briefings for field, State and local offices on bicycle and pedestrian program issues. (FHWA, NHTSA, FTA)

Actions: USDOT has

- Made presentations on bicycle and pedestrian program issues in many States including AZ, CA, CO, DC, FL, GA, IA, IL, IN, ME, NY, OR, RI, SC, TX, WA.
- Organized annual meetings of the State Bicycle and Pedestrian Coordinators, to which FHWA and NHTSA headquarters and field staff are invited.
- Initiated a series of State-level meetings between all those involved in implementing bicycle and pedestrian projects through TEA-21 (including FHWA

Division Offices, Governors Highway Safety Representatives, Bicycle and Pedestrian Coordinators, Transportation Enhancement Coordinators, advocacy groups, and others).

USDOT still needs to:

- Better train and work with USDOT field staff to ensure that they are able to address the needs of bicyclists and pedestrians.

7. Provide materials on bicycle and pedestrian issues to national organizations

Actions: USDOT has

- Made a wide array of publications and other resources available to a diverse and growing number national organizations. Notable projects include:
 - creation of Pedestrian and Bicycle Crash Analysis Tool (PBCAT) software to assist State and local government record keeping and problem identification;
 - publication of a Bike to Work Day manual for the annual Washington DC event sponsored by the Washington Area Bicyclists Association;
 - a comprehensive Bicycle Safety Tool Kit, with an emphasis on safety materials, which will soon be complemented by a pedestrian equivalent;
 - compilation of a Pedestrian Reference Set to augment information available to communities wanting to improve walking conditions
 - publication of a Spanish- and English-language Walkability Checklist to help people identify pedestrian issues in their neighborhood
 - a series of Spanish-language materials to address older adult and child pedestrian safety issues
- Established the National Bicycle and Pedestrian Clearinghouse to facilitate distribution of materials on bicycle and pedestrian issues to national organizations (1994-1998).
- Distributed pedestrian and bicycle safety materials to diverse organizations such as the American Public Health Association, General Federation of Women's Clubs, Emergency Nurses Association, National Association of City and County Health Officials, National SAFE KIDS Campaign, Centers for Disease Control and Prevention, Maternal and Child Health Bureau, Coalition of Hispanic Health Organizations, and many more.

Action Item 2.

Fully integrate consideration of bicyclist and pedestrian needs into planning; design; operational policies and procedures; and suggested usage, accident rate, and evaluation methodologies.

1. As appropriate, include consideration of bicyclist and pedestrian needs into revisions of DOT policies and procedures. (OST, FHWA, NHTSA, FTA)
2. Distribute the revised policies and procedures to field offices. (FHWA, NHTSA, FTA)

3. Coordinate bicycle and pedestrian efforts with the Office of Intermodalism and with the Bureau of Transportation Statistics. (OST, FHWA, NHTSA, FTA)
4. Encourage AASHTO to incorporate appropriate criteria for accommodation of bicyclists and pedestrians into their design, construction policies, standards and guides. (FHWA)
5. Recommend revisions to the "Manual of Uniform Traffic Control Devices" and the "Highway Capacity Manual" to ensure appropriate consideration of bicyclists and pedestrians. (FHWA)
6. Encourage the revision of State and local planning and design policies and procedures to include consideration of bicyclists and pedestrians as appropriate. (FHWA)
7. Encourage and publicize intermodal projects which include bicycle and/or pedestrian components. (OST, FHWA, NHTSA, FTA)
8. Encourage State safety offices to include consideration of bicyclists and pedestrians into their policies and procedures. (FHWA, NHTSA)
9. Investigate the collection of use, crash/accident rate, and evaluation data. Develop and test model usage, crash/accident rate, and evaluation methodologies and encourage their use by State and local officials. Assimilate and distribute this information. (OST, FHWA, NHTSA, FTA)
10. Develop prototype seating configurations and hardware to accommodate bicycles on commuter and intercity rail and bus lines. (FTA)
11. Encourage liberalized policies by Amtrak for bicycle carriage on rail. (FTA)

USDOT Response to Action Item 2.

1. As appropriate, include consideration of bicyclist and pedestrian needs into revisions of DOT policies and procedures. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Ensured that the USDOT proposal for the successor to ISTEA (known as NEXTEA), fully integrated bicycle and pedestrian elements, including continued eligibility for major funding programs and inclusion in the planning process (1997). The eventual law that was passed by Congress, TEA-21, reflected most of these recommendations.
- The *NHTSA Strategic Plan* includes mention of bicycle and pedestrian issues:

"The agency's goal is to reduce the pedestrian fatality rate to 2.0 and the injury rate to 30.6 per 100,000 people by the year 2000. In addition, the DOT seeks to reduce pedestrian and bicycle injuries and fatalities by 10 percent by the year 2000. A combination of public information, enforcement, engineering, and outreach strategies will be used to reach these goals."

NHTSA's goal is to reduce bicyclist fatalities and injuries and increase bicycle helmet usage. The agency will use a combination of public information, legislation, enforcement, engineering, and outreach strategies targeted to both bicyclists and motorists.

- The *FHWA Strategic Plan* includes a brief mention of bicycle and pedestrian issues: "The FHWA, in partnership with the total highway and transportation community, is preparing for the future. Our vision is to create the safest and most efficient and effective highway and intermodal transportation system in the world for the American people--a transportation system where everyone has access within and beyond their community and to the world; a transportation system where crashes, delays, and congestion are significantly reduced; a transportation system where freight moves easily and at the lowest costs across towns, States, and international borders; a system where roads protect ecosystems and where travel on our roadways does not degrade the quality of the air; a system where pedestrians and bicyclists are accommodated; and a system where transportation services are restored immediately after disasters and emergencies."

USDOT still needs to:

- Include bicycle and pedestrian consideration in core internal planning and operations documents such as the US DOT Strategic Plan and the modal administrations' performance measure plans. The current *USDOT Strategic Plan* includes no specific mention of bicycle issues and a passing reference to the safety of elderly pedestrians.
- Improve overall awareness of bicycle and pedestrian issues within the senior levels of the USDOT so that the stated priorities of the agency and modal administrations are translated into actions.

2. Distribute the revised policies and procedures to field offices. (FHWA, NHTSA, FTA)

Actions: USDOT has

- Distributed a series of policy memoranda that highlight the agency's commitment to bicycle and pedestrian issues including a February 26, 1999, policy memorandum from the FHWA Administrator to field offices detailing changes brought about by TEA-21 (1999).

USDOT still needs to:

- Incorporate bicycle and pedestrian issues into the statements of overall policy and procedure of the USDOT so that the issues are integrated into the ongoing activities of transportation agencies.

3. Coordinate bicycle and pedestrian efforts with the Office of Intermodalism and with the Bureau of Transportation Statistics. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Worked with the BTS to develop a needs statement for current research into the availability of bicycle and pedestrian data. (1998)

- Worked with the Office of Intermodalism to develop the Millennium Trails Initiative

4. Encourage AASHTO to incorporate appropriate criteria for accommodation of bicyclists and pedestrians into their design, construction policies, standards and guides. (FHWA)

Actions: USDOT has

- Provided a consultant to collect and assimilate technical comments on the upcoming AASHTO *Guide to the Development of Bicycle Facilities* (1996-1998).
- Worked closely with AASHTO to involve bicycle and pedestrian professionals in the review and re-writing of the *Guide to the Development of Bicycle Facilities*, in particular by soliciting and compiling the comments of the State Bicycle and Pedestrian Coordinators (1996-1998).
- Begun implementing the TEA-21 mandated study to develop guidance on the various approaches to accommodating bicycle and pedestrian travel, in cooperation with AASHTO, ITE, and other interested organizations (1998-1999).
- Designated a staff person to serve on the review panel for an NCHRP research project synthesizing pedestrian design guidelines and standards (1999).

5. Recommend revisions to the *Manual on Uniform Traffic Control Devices* and the *Highway Capacity Manual* to ensure appropriate consideration of bicyclists and pedestrians. (FHWA)

Actions: USDOT has

- Worked closely with the newly-formed National Committee on Uniform Traffic Control Devices Task Force on Bicycling to revise Part IX of the MUTCD.
- Developed a Final Rule for use of the fluorescent yellow-green warning sign (for bicyclists, pedestrians and school zones) and the "Share the Road" warning sign.
- Completed a research project to study and develop necessary changes to the *Highway Capacity Manual*; the research is complete and the changes approved for inclusion in the 2000 edition of the Manual. (1996-1998)

USDOT still needs to:

Include more pedestrian and bicycle-related innovative traffic control devices in the MUTCD, including:

- develop a brochure outlining the MUTCD experimentation and rulemaking processes
- ensure bicyclists and pedestrian interests are considered in all MUTCD rulemaking activities.

6. Encourage the revision of State and local planning and design policies and procedures to include consideration of bicyclists and pedestrians as appropriate. (FHWA)

Actions: USDOT has

- Delivered 40 *Bicycle and Pedestrian Safety and Accommodations* courses through the National Highway Institute (NHI) -- the course includes extensive coverage of design and planning issues (1996-1998).
- Delivered 10 *Bicycle and Pedestrian Planning Under ISTEA* training courses through NHI -- the course includes extensive recommendations on developing a planning process to integrate bicycling and walking (1994-1995).
- Published *Flexibility in Highway Design* -- the book includes discussion of bicycle and pedestrian design issues (1997).
- Published *Implementing Bicycle Improvements at the Local Level* (1998) and drafted a companion pedestrian manual for publication in 1999.

USDOT still needs to:

- Develop and deliver bicycle and pedestrian facility design courses.
- Develop and deliver training on compliance with the Americans with Disabilities Act.

7. Encourage and publicize intermodal projects which include bicycle and/or pedestrian components. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Recognized the Traverse Area Recreational Trail and Wisconsin's Highway 23 Improvement in the *Environmental Excellence* award program (1997).
- Featured numerous intermodal bicycle and pedestrian projects including the Stone Arch Bridge (MN), the Farmington Canal trail (CT), and the Danville Rail Passenger Station (VA) in *"Building on the Past, Traveling to the Future"*, published with the National Trust for Historic Preservation (1995).
- Published *"Improving Conditions for Bicycling and Walking: A Best Practices Report"* which features the I-70 trail (Glenwood Canyon, CO), Long Beach Bikestation, Phoenix Bike on Bus program, Caltrain Bike on Rail program, and many more examples of intermodal transportation projects.
- Created an interactive, multi-media kiosk on the CMAQ and Transportation Enhancements program which features numerous bicycle and pedestrian projects including Seattle's Spot Improvement Program and the Long Beach Bikestation.

8. Encourage State safety offices to include consideration of bicyclists and pedestrians into their policies and procedures. (FHWA, NHTSA)

Actions: USDOT has

- Created the Pedestrian Safety Roadshow, an interactive workshop to help communities mobilize support for pedestrian safety activities. DOT has sponsored at least 10 workshops and trained more than 150 trainers - who in turn have delivered dozens of Roadshows in communities across the country.

- Published *Traffic Safety Digest: A Compendium of Innovative State and Local Traffic Safety Projects* which includes descriptions of a variety of pedestrian and bicycle safety initiatives.

9. Investigate the collection of use, crash/accident rate, and evaluation data. Develop and test model usage, crash/accident rate, and evaluation methodologies and encourage their use by State and local officials. Assimilate and distribute this information. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Published *Crash Typing in the 90's* reports for both bicycle and pedestrian crashes to update the way in which these crashes are categorized. This in turn helps with the identification of problems and specific countermeasures (1998).
- Developed and tested the PBCAT software to assist State and local crash data gathering and application (1999).
- Updated research into the use of hospital data to capture more accurate levels of bicycle and pedestrian crashes, especially in relation to single person and off-highway crashes (1999).
- Disseminated a *Model User Survey* through the National Bicycle and Pedestrian Clearinghouse to aid agencies wishing to collect bicycle and pedestrian use data (1994).
- Published a *Compendium of Available Bicycle and Pedestrian Trip Generation Data in the United States* (1994).
- Worked with Bureau of Transportation Statistics to develop needs statement for current research into the availability of bicycle and pedestrian data (1998).
- Issued annual Traffic Safety Fact Sheets on bicycle and pedestrian injuries and fatalities.

USDOT still needs to:

- Collect and analyze bicycle and pedestrian exposure data to help determine the impact of safety countermeasures and other actions on bicyclist and pedestrian safety.
- Collect and analyze bicycle and pedestrian use data.

10. Develop prototype seating configurations and hardware to accommodate bicycles on commuter and intercity rail and bus lines. (FTA)

Actions: USDOT has

- Not acted on this item. The ongoing work of Caltrain and other rail providers, and the developers of bicycle racks for buses, has made USDOT's role in this unnecessary.

USDOT still needs to:

- Promote the work of rail and transit providers to the broader transit industry.

11. Encourage liberalized policies by AMTRAK for bicycle carriage on rail. (FTA)

Actions: USDOT has

- Not acted on this item.

USDOT still needs to:

- Identify FRA as the appropriate agency through which to work cooperatively with the railroad industry and address the issue of bicycle carriage on passenger trains.

Action Item 3

Provide funding for a bicycle and pedestrian friendly infrastructure that includes new facilities and infrastructure retrofitting and education for all road users, and enforcement programs for all road users.

1. Actively promote the use of Federal-aid transportation funds for bicycle and pedestrian projects. Follow up to determine the amount of money spent in each State. Publicize the expenditures and funding sources. (FHWA, NHTSA)
2. Actively encourage Section 402 funding to be used on bicycle and pedestrian safety programs. (FHWA, NHTSA)
3. Encourage the use of Title III, Section 25 funds for facilities and programs enhancing multimodal transit trips which include bicycle and pedestrian components. (FTA)
4. Refine and promote educational and enforcement programs for all road users relating to bicyclists and pedestrians. (NHTSA, FHWA, FTA)

USDOT Response to Action Item 3

1. Actively promote the use of Federal-aid transportation funds for bicycle and pedestrian projects. Follow up to determine the amount of money spent in each State. Publicize the expenditures and funding sources. (FHWA, NHTSA)

Actions: USDOT has

- Published *Bicycle and Pedestrian Provisions of the Federal-aid Program* which highlights funding opportunities (1998).
- Circulated program guidance on the bicycle and pedestrian provisions of the Federal transportation program that actively encourages States and MPOs to use the full range of available funding programs to improve conditions for bicycling and walking (1999).

- Ensured that the *Federal Register* Notice announcing the Transportation and Community and System Preservation pilot program actively encouraged bicycle and pedestrian related projects (1998).
- Attended a groundbreaking ceremony for the Metropolitan Branch Trail (DC), a High Priority Project funded under TEA-21 (1998).
- Written the 1999 Public Lands Highways Discretionary Funds solicitation to actively recruit trail projects - resulting in the award of \$11 million for bicycle, pedestrian, and trail projects (1998) - and publicized the results of this solicitation.
- Produced an annual summary of obligated funds for the TE, CMAQ, and STP programs.

USDOT still needs to:

- Improve the way in which the agency tracks expenditures on bicycle and pedestrian projects that are an incidental feature of larger projects.
- Encourage and assist States and MPOs in the speedier implementation of bicycle and pedestrian projects using TEA-21 funds.

2. Actively encourage Section 402 funding to be used on bicycle and pedestrian safety programs. (FHWA, NHTSA)

Actions: USDOT has

- Initiated the Pedestrian Safety Roadshow, a citizen action workshop that has been delivered in more than 50 communities, which focuses on a variety of pedestrian safety programs including those funded by Section 402 State and Community Traffic Safety Program. More than 150 trainers have been trained to deliver the Roadshow.

3. Encourage the use of Title III, Section 25 funds for facilities and programs enhancing multimodal transit trips which include bicycle and pedestrian components. (FTA)

Actions: USDOT has

- Published *Bicycles and Transit: A Partnership that Works* (1998).
- Published *Improving Pedestrian Access to Transit: An Advocacy Handbook* (1998).

USDOT still needs to:

- Provide greater assistance in defining and describing the new Transit Enhancements Program created by TEA-21

4. Refine and promote educational and enforcement programs for all road users relating to bicyclists and pedestrians. (NHTSA, FHWA, FTA)

Actions: USDOT has

- Maintained an active, ongoing program to provide a wide range of literature and resources on bicycle and pedestrian safety programs including:
 - *Prevent Pedestrian Crashes* a program for preschool and elementary school children
 - *Walk Alert: National Pedestrian Safety Program Guide*
 - *Ride Like A Pro* bicycle helmet safety event and brochure
 - *Caminando a Través de los Años*, a three-part Spanish language pedestrian safety program featuring a telenovela, brochures, slide show etc.
 - *What's New About Bicycle Helmets* brochure
 - *10 Smart Routes to Bicycle Safety* booklet
 - *Use Your Head: Before You Buy a Bike Helmet Make Sure it Fits*, poster and flyer
- Initiated work on the TEA-21 mandate to develop a national bicycle safety education curriculum.
- Developed a *Zone Guide for Pedestrian Safety* to provide a systematic, cost-effective way to target pedestrian safety activities.
- Developed a *Bicycle Safety Resource Guide* documenting bicycle safety problem areas and available countermeasures in a matrix format.

Action Item 4.

Provide initial and continuing education and training for planning and engineering professionals which encourages routine consideration of the needs of bicyclists and pedestrians.

1. Refine and continue providing training for transportation officials in field, State, MPO, and local offices on bicycle and pedestrian accommodations and safety. (FHWA, NHTSA)
2. Provide training opportunities and technical assistance to State Department of Transportation bicycle and pedestrian coordinators. (FHWA, NHTSA)
3. Investigate the development of a core bicycle and pedestrian curriculum for inclusion in transportation engineering courses at the undergraduate, graduate, and continuing education levels. (FHWA).
4. Investigate development of a training course on bicyclist and pedestrian facility planning and design. (FHWA)
5. Provide training for local transit officials on designing bicyclist-friendly parking facilities, on-vehicle carriage programs, interfaces for bicyclists and pedestrians with transit, and access features approaching and at transit centers. (FTA, FHWA)

USDOT Response to Action Item 4

1. Refine and continue providing training for transportation officials in field, State, MPO, and local offices on bicycle and pedestrian accommodations and safety. (FHWA, NHTSA)

Actions: USDOT has

- Delivered 40 *Bicycle and Pedestrian Safety and Accommodation* courses through NHI (1996-1998)
- Initiated development of a bicycle facility design course through the National Highway Institute (1999.)

2. Provide training opportunities and technical assistance to State Department of Transportation bicycle and pedestrian coordinators. (FHWA, NHTSA)

Actions: USDOT has

- Organized 6 annual meetings of the State bicycle and pedestrian coordinators
- Provided a detailed package of current training opportunities at most recent annual meeting (Sept. 1998)
- Promoted all NHI bicycle and pedestrian courses through the State DOT bicycle and pedestrian coordinators
- Facilitated a bi-monthly conference call of the State bicycle and pedestrian coordinators

3. Investigate the development of a core bicycle and pedestrian curriculum for inclusion in transportation engineering courses at the undergraduate, graduate, and continuing education levels. (FHWA).

Actions: USDOT has

- Developed a modular, graduate level bicycle and pedestrian curriculum for inclusion in engineering and planning curriculum (1999). This can also be used as part of undergraduate and continuing education courses.

4. Investigate development of a training course on bicyclist and pedestrian facility planning and design. (FHWA)

Actions: USDOT has

- Begun work through NHI to develop a bicycle facility design training course (1999).
- Offered a three-day *Bicycle and Pedestrian Safety and Accommodation* course through NHI that includes a substantial amount of facility planning and design information.

USDOT still needs to:

- Develop and deliver a pedestrian facility design course.
- Develop and deliver an ADA implementation design course.
- Develop and deliver a course or course materials on pedestrian crossings at railway-highway intersections.

5. Provide training for local transit officials on designing bicyclist-friendly parking facilities, on-vehicle carriage programs, interfaces for bicyclists and pedestrians with transit, and access features approaching and at transit centers. (FTA, FHWA)

Actions: USDOT has

- Not acted on this item.

USDOT still needs to:

- Integrate bicycle and pedestrian integration into American Public Transit Association (APTA) and FTA courses, resources and materials.
- Complete and publish the results of an FRA study into the feasibility of rails-with-trails facilities and their linkage to transit services.

Action Item 5.

Conduct promotional and awareness activities, both to increase the level of bicycling and walking for all trip purposes and to legitimize these travel modes within the transportation system.

1. Coordinate activities of the USDOT with other Federal agencies. Convene regular meetings of representatives of the Federal agencies involved in bicycling and pedestrian issues to develop new programs and to exchange information. (OST, FHWA, NHTSA, FTA)
2. Include specific promotional references to bicycling and walking in speeches, policy documents and regulations, press releases, news articles and other information released to the public. Actively promote and sponsor events such as National Bicycle Month and bicycle and pedestrian conferences. (OST, FHWA, NHTSA, FTA)
3. Conduct briefings for field, State, MPO and local offices on bicycle and pedestrian program issues. Conduct site visits of exemplary programs and pass on information to other localities. (OST, FHWA, NHTSA, FTA)
4. Encourage and coordinate activities to measure the amount of bicycling and walking in the United States and ensure this data is compatible with crash/accident data. (OST, FHWA, NHTSA, FTA)
5. Develop and provide information to transit providers and to potential and actual transit users on multimodal trips including bicycling and walking. (FTA)
6. Implement a national campaign to promote increased and safer use of bicycling and walking. (OST, FHWA, NHTSA, FTA)

USDOT Response to Action Item 5

1. Coordinate activities of the USDOT with other Federal agencies. Convene regular meetings of representatives of the Federal agencies involved in bicycling and pedestrian issues to develop new programs and to exchange information. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Initiated monthly meetings of DOT staff involved in bicycle and pedestrian issues.
- Established a Charter Group on Bicycle and Pedestrian Safety to coordinate and elevate the importance of these issues within NHTSA and FHWA.
- Convened quarterly meetings of a new Interagency Task Force on Bicycling and Walking that has included participation from GSA, EPA, CDC, DOT, DOI, USDA, the Presidents Council on Physical Fitness and Sports, DOD, and local bicycle interest groups.
- Created a Task Force on Rails-with-Trails to coordinate the response and role of FHWA, NHTSA, FRA, OST, and FTA on this emerging issue.
- Co-chaired the National Bicycle Safety Network, a public-private partnership to promote safe bicycling with partners such as the League of American Bicyclists, Centers for Disease Control and Prevention, and Maternal and Child Health Bureau.
- Participated in the Interagency Trails Council meetings hosted by DOI/NPS.
- Developed the Millennium Trails Initiative in partnership with the White House Millennium Council.
- Worked with the U.S. Access Board on sidewalk accessibility and the accessibility of outdoor developed areas.

2. Include specific promotional references to bicycling and walking in speeches, policy documents and regulations, press releases, news articles and other information released to the public. Actively promote and sponsor events such as National Bicycle Month and bicycle and pedestrian conferences. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Sponsored and supported a wide range of national, State and local bicycle and pedestrian conferences including Pro Bike / Pro Walk (1994, 1996, 1998), National Trails Symposium (1994, 1996, 1998), National Rails to Trails Conference (1995), First International Trails and Greenways Conference (1998), LifeSavers (1994, 1995, 1996, 1997, 1998), National Pedestrian Conference (1997), Moving Kids Safely (1996, 1997), National Trails Day (1998, 1999), International Conference on Injury Prevention and Control (1996, 1998), Safety Integration Conference (1999)
- Supported the annual Washington, DC Bike to Work Day.
- Supported the first Earth Force Youth Summit scheduled on May 5, 1999.
- Supported the National Walk Our Children to School Day (1998, 1999).
- Established the Millennium Trails Program to integrate bicycling and walking into the White House Millennium initiative, including a launch by the First Lady on Oct. 5, 1998.
- Written a guest editorial on bicycling issues for Bicycling Magazine, due for publication in the June 1999 issue.

USDOT still needs to:

- Integrate bicycling and walking into USDOT presentations at mainstream transportation conferences such as AASHTO, TRB, ITE, APA, ASCE, APTA, and Railvolution.
- Include references to bicycling and walking in speeches, presentations and other activities that are not just addressed to the bicycling and walking community, but also to the construction, traffic engineering, motor vehicle, trucking, and planning audiences.

3. Conduct briefings for field, State, MPO and local offices on bicycle and pedestrian program issues. Conduct site visits of exemplary programs and pass on information found to other localities. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Published *Improving Conditions for Bicycling and Walking: A Best Practices Report* which captures and disseminates success stories from more than 20 cities and States. (1998)
- Published *Bicycling and Walking in the Nineties and Beyond: Applying Scandinavian Experience to America's Challenges*. (1995)
- Published *FHWA Study Tour for Pedestrian and Bicyclist Safety in England, Germany and The Netherlands*. (1995)
- Included in its on-going research program studies of innovative bicycle facilities and pedestrian applications for ITS technologies. These are expected to be published in 1999.

4. Encourage and coordinate activities to measure the amount of bicycling and walking in the United States and ensure this data is compatible with crash/accident data. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Published *A Compendium of Available Bicycle and Pedestrian Trip Generation Data in the United States* (1994).
- Organized and published the results of a *Bicycle/Pedestrian Trip Generation Workshop* (1996-1998).
- Disseminated model surveys for local and State agencies to use in determining local levels of bicycle use (1995).
- Recently awarded a contract through Bureau of Transportation Statistics to research available bicycle and pedestrian data (1999).
- Developed a nationwide telephone survey on Public Beliefs about Pedestrian and Bicycle Safety and Accommodations, to be carried out in 1999.

USDOT still needs to:

- Establish a reliable method by which to calculate and track the level of use of bicycles and walking.

- Continue studying ways in which to develop a complete picture of bicycle and pedestrian crashes and their causes.

5. Develop and provide information to transit providers and to potential and actual transit users on multimodal trips including bicycling and walking. (FTA)

Actions: USDOT has

- Published *Bicycling and Transit: A Partnership that Works* (1998)
- Published *Improving Pedestrian Access to Transit: An Advocacy Manual*. (1998)
- Studied methods of forecasting nonmotorized trip patterns, including where the two modes are integrated with transit, and prepared a report for publication in 1999.

6. Implement a national campaign to promote increased and safer use of bicycling and walking. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Founded and actively supported the Partnership for a Walkable America (PWA).
- Supported the National Walk Our Child to School Day.
- Sponsored National Trails Day in 1998 and 1999.
- Developed the Pedestrian Safety Roadshow for community leaders.

USDOT still needs to:

- Explore support for a bicycle equivalent of the PWA.
- Champion the cause of bicycling and walking beyond a bicycle and pedestrian audience and ensure that the two modes become a real part of the national dialog on transportation safety and the future of our transportation infrastructure.

Action Item 6.

Carry out activities that increase the safety of bicycling and walking.

1. Encourage the collection of data for evaluating the effectiveness of bicycle and pedestrian safety programs. (OST, FHWA, NHTSA, FTA)
2. Promote and disseminate the results of Section 402 bicycle and pedestrian safety programs. (FHWA, NHTSA)
3. Develop a data collection methodology for bicyclist and pedestrian use estimates and for exposure measures in crash/accident rate calculations. (FHWA, NHTSA)
4. Encourage and actively promote helmet use among bicyclists of all ages. (OST, FHWA, NHTSA, FTA)
5. Investigate bicyclist and pedestrian crashes which do not involve motor vehicles and those which occur off the roadway.
6. Widely promote the use of Walk Alert and other pedestrian safety program materials. (FHWA, NHTSA)

7. Cooperate with other agencies and organizations to develop and promote a Bicycle Safety Program for use at the local level.
8. Collect crash/accident data involving pedestrians, bicyclists, and transit vehicles, develop countermeasures for these crashes/accidents and test these countermeasures. (FTA)

USDOT Response to Action Item 6

1. Encourage the collection of data for evaluating the effectiveness of bicycle and pedestrian safety programs. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Developed the *Pedestrian and Bicycle Crash Analysis Tool (PBCAT)* software.
- Initiated study of pedestrian safety countermeasures in a large urban area (Miami) to determine their impact (1998).
- Published a *Bicycle Safety-related Research Synthesis* (1995).
- Evaluated the Pedestrian Safety Roadshows and Facilitator Training courses to determine their effectiveness and the need for additional follow-up and assistance to communities who have had the Roadshow.

USDOT still needs to:

- Develop an outreach program to promote the benefits of different pedestrian countermeasures as cost-effective solutions to pedestrian crash problems.

2. Promote and disseminate the results of Section 402 bicycle and pedestrian safety programs. (FHWA, NHTSA)

Actions: USDOT has

- Published *Traffic Safety Digest: A Compendium of Innovative State and Local Traffic Safety Projects* which includes descriptions of pedestrian and bicycle safety initiatives.
- Published the *Safety Countermeasures* newsletter and a series of *Traffic Tech Notes* that highlight successful and interesting projects funded with Section 402 money.

3. Develop a data collection methodology for bicyclist and pedestrian use estimates and for exposure measures in crash/accident rate calculations. (FHWA, NHTSA)

Actions: USDOT has

- Created and disseminated a Model Use Survey and included crash and use data collection activities as an element of various on-going research projects.
- Commissioned research through BTS to study current data collection techniques.

USDOT still needs to:

- Complete this task.
- Collect and analyze data related to pedestrian crossings of railroad lines and trespasser activity on railroad corridors.

4. Encourage and actively promote helmet use among bicyclists of all ages. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Co-chaired the National Bicycle Safety Network
- Organized the *Ride Like A Pro* bicycle helmet safety event in conjunction with the National Football League and the Super Bowl (1995-1999)
- Published a range of materials on bicycle helmets including
 - *What's New About Bicycle Helmets*, flyer
 - *Use Your Head Before You Buy a Bicycle Helmet*, poster and flyer
 - *Be Head Smart*, brochure.
- Provided bicycle helmet demonstrations at the DOT's 30th Anniversary Celebration, to Garrett Morgan Youth, and at local schools.
- Presented a Helmet Initiatives workshop at the International Injury Conference (1998, 1999)

5. Investigate bicyclist and pedestrian crashes which do not involve motor vehicles and those which occur off the roadway.

Actions: USDOT has

- Completed *Development of Pedestrian and Bicyclist Injury Databases to Study Non-roadway and Non-motor vehicle Injury Events* to address this issue. (1999)

6. Widely promote the use of Walk Alert and other pedestrian safety program materials. (FHWA, NHTSA)

Actions: USDOT has

- Developed the Pedestrian Safety Roadshow which has been delivered in more than 50 communities, and trained 155 Roadshow trainers. The Roadshow is seen as a necessary precursor to the implementation of a Walk Alert-type pedestrian safety program.
- Developed a *Pedestrian Reference Set* to provide follow-up materials to communities who have had, or are organizing, a Pedestrian Safety Roadshow.
- Supported *National Walk Our Children to School Day*. (Ongoing)
- Developed a *Pedestrian Safety Toolkit* as a resource for local pedestrian safety coordinators and advocates (1999).
- Produced brochures on *Pedestrian Safety for School Age Children*; *Crossing Advice for Pedestrians*; *The Signs of Safety are Everywhere*; and *Don't have a Blind Spot When it Comes to Walking Safely Near Large Trucks and Buses*.

- Produced a quarterly newsletter to inform USDOT field staff and others about pedestrian funding issues, research reports, success stories, legislation, and other updates.

7. Cooperate with other agencies and organizations to develop and promote a Bicycle Safety Program for use at the local level.

Actions: USDOT has

- Initiated development of a National Bicycle Safety Education Curriculum which will result in an assemblage of available education courses for all age groups.
- Commissioned a compilation of bicycle safety literature, programs, resources etc. with the goal of providing a World Wide Web based resource that can identify education program for any age, any problem, variety of media.
- Worked with Earth Force and the Centers for Disease Control and Prevention to host a Youth Safety Summit to showcase innovative youth projects that promote bicycling and bicycle safety (1999).
- Developed the *Ride Like a Pro Community Handbook* to enable communities to host their own bicycle safety events.

8. Collect crash/accident data involving pedestrians, bicyclists, and transit vehicles, develop countermeasures for these crashes/accidents and test these countermeasures. (FTA)

Actions: USDOT has

- Initiated a task force and commissioned research to address rails-with-trails issues, one element of this overall action item.

USDOT still needs to:

- Complete this action item.

Action Item 7.

Provide outreach to other government agencies and develop new public/private partnerships to safely increase bicycling and walking usage levels.

1. Initiate contact with other Federal agencies to learn of their efforts relating to bicycling and walking both from a programmatic and from administrative aspects. Work with these agencies to use their resources to promote bicycling and walking, and to integrate consideration of bicycling and walking into their policies and programs where appropriate. (OST, FHWA, NHTSA, FTA)
2. Initiate contact, respond to inquiries, and work cooperatively with public and private organizations committed to promoting bicycling and walking and their safety. (OST, FHWA, NHTSA, FTA)
3. Provide technical information, present briefings, or conduct workshops and conferences as appropriate. (OST, FHWA, NHTSA, FTA)

4. Conduct a workshop to investigate the role of the transit industry in bicycle systems and services. (FTA)
5. Monitor and publicize ongoing projects to show the role of local transit agencies, MPOs, and other local organizations in developing and managing a comprehensive bicycle commuting system. (FTA)

USDOT Response to Action Item 7.

1. Initiate contact with other Federal agencies to learn of their efforts relating to bicycling and walking both from a programmatic and from administrative aspects. Work with these agencies to use their resources to promote bicycling and walking, and to integrate consideration of bicycling and walking into their policies and programs where appropriate. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Established and maintained the Interagency Task Force on Bicycling and Walking.
- Participated in Interagency Trails Council meetings.
- Served on the Regulatory Negotiation Committee on Outdoor Recreation Facilities in cooperation with the U.S. Access Board and numerous public and private groups.
- Co-chaired the National Bicycle Safety Network.
- Been a founding member of Partnership for a Walkable America.
- Hosted two workshops on Rails-with-Trails issues with the railroad industry, safety groups, and trail advocates.
- Co-sponsored a conference with the Centers for Disease Control to Prevent Pediatric Pedestrian Injuries.
- Delivered presentations to numerous conferences and meetings of national associations and government agencies.

2. Initiate contact, respond to inquiries, and work cooperatively with public and private organizations committed to promoting bicycling and walking and their safety. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Supported the Partnership for a Walkable America.
- Published *Improving Conditions for Bicycling and Walking: A Best Practices Report* with the Association of Pedestrian and Bicycle Professionals and the Rails-to-Trails Conservancy (1998).
- Supported numerous conferences, workshops, and events organized by public and private partners.
- Established the National Bicycle and Pedestrian Clearinghouse with Bicycle Federation of America and the Rails-to-Trails Conservancy (RTC) (1994-1998). In 1999, many of these functions and additional responsibilities will be transferred to a new Bicycle and Pedestrian Technical Information Center.

- Established the National Transportation Enhancements Clearinghouse with RTC (1996-present).

3. Provide technical information, present briefings, or conduct workshops and conferences as appropriate. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Presented bicycle and pedestrian information at numerous international, national, State, and local conferences, meetings, and workshops.
- Briefed the USDOT Secretary, modal Administrators, and members of Congress on bicycle and pedestrian issues.

4. Conduct a workshop to investigate the role of the transit industry in bicycle systems and services. (FTA)

Actions: USDOT has

- Not acted on this item.

USDOT still needs to:

- Complete this action item

5. Monitor and publicize ongoing projects to show the role of local transit agencies, MPOs, and other local organizations in developing and managing a comprehensive bicycle commuting system. (FTA)

Actions: USDOT has

- Not acted on this item.

USDOT still needs to:

- Complete this action item.

Action Item 8.

Conduct research and develop effective methods of technology transfer.

1. Coordinate Federal research activities both within and outside of the USDOT and make recommendations for studies as appropriate. (OST, FHWA, NHTSA, FTA)
2. Continue research activities relating to the safety of bicycling and walking. (FHWA, NHTSA, FTA)
3. Conduct research into promoting the use of bicycling and walking, and measuring the effectiveness of such programs. (FHWA, NHTSA, FTA)

4. Actively investigate existing technology transfer activities (such as the FHWA Local Technical Assistance Program, National Highway Institute, FHWA Office of Technology Applications, and the NHTSA Regional Operations Program) and utilize them where appropriate. Where needed, develop new technology transfer activities.
5. Conduct a workshop to investigate the shortcomings of traditional technology transfer activities relating to bicyclists and pedestrians. Develop solutions and recommend their implementation in the DOT agencies. (OST, FHWA, NHTSA, FTA)
6. Identify means and provide resources to translate appropriate research and other bicyclist/pedestrian literature from foreign language sources. (OST, FHWA, NHTSA, FTA)
7. Investigate the quantification of the projected reductions in emissions as a result of provisions for bicyclists and pedestrians in air quality nonattainment areas. (OST, FHWA)
8. Establish a national nonmotorized transportation center and clearinghouse. (OST, FHWA, NHTSA, FTA)
9. Conduct research on patronage estimation and mode split modeling for bicycle and pedestrian services and facilities. (FTA)

USDOT Response to Action Item 8

1. Coordinate Federal research activities both within and outside of the USDOT and make recommendations for studies as appropriate. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Completed a 5-year Bicycle and Pedestrian Research Program featuring 16 major areas of research. A complete description of the research projects was included as an appendix in the five year progress report.
- Developed an annual list of research priorities within FHWA
- Served as a co-chair of the TRB Committee on Bicycling Research Needs Subcommittee to develop research problem statements; had numerous staff serving on the TRB Bicycling and Pedestrian committees.
- Established a Research Committee of the Interagency Task Force on Bicycling and Walking (1999)

USDOT still needs to:

- Participate in the development of a coordinated national research agenda to address critical bicycle and pedestrian research needs.

2. Continue research activities relating to the safety of bicycling and walking. (FHWA, NHTSA, FTA)

Actions: USDOT has

- Completed tasks under the research project above.

- Initiated a major research study of pedestrian safety countermeasures in a large urban area (1998).
- Begun investigating a three year research study of trail/roadway intersections.
- Initiated research on bicycle conspicuity.
- Initiated a literature review on Vehicle Travel Speeds and Pedestrian Injuries.
- Undertaken the development, implementation and evaluation of a countermeasures program for impaired pedestrians.
- Initiated research into the feasibility of rails-with-trail projects.
- Tested and developed the "Zone Approach" to targeting pedestrian safety improvements.

USDOT still needs to:

- Identify more research funding within the Department to meet the on-going research needs in the bicycle and pedestrian area.

3. Conduct research into promoting the use of bicycling and walking, and measuring the effectiveness of such programs. (FHWA, NHTSA, FTA)

Actions: USDOT has

- Not acted on this item.

USDOT still needs to:

- Complete this action item.

4. Actively investigate existing technology transfer activities (such as the FHWA Local Technical Assistance Program, National Highway Institute, FHWA Office of Technology Applications, and the NHTSA Regional Operations Program) and utilize them where appropriate. Where needed, develop new technology transfer activities.

Actions: USDOT has

- The National Highway Institute (NHI) has worked with FHWA and NHTSA to develop bicycle and pedestrian courses and to review bicycle and pedestrian research products.
- The Office of Technology Applications (since renamed the Office of Technology Evaluation and Deployment) has trained more than 150 instructors for the Pedestrian Safety Roadshows, created the Pedestrian Reference Set, and has worked collaboratively with FHWA and NHTSA to promote and use a variety of bicycle and pedestrian products.
- FHWA's International Technology Scanning Program has sponsored two study tours and published two reports on European initiatives to improve bicycle and pedestrian use and safety.
- All agencies have started taking full advantage of the World Wide Web to make information widely available.

5. Conduct a workshop to investigate the shortcomings of traditional technology transfer activities relating to bicyclists and pedestrians. Develop solutions and recommend their implementation in the DOT agencies. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- The technology transfer element of the multi-year Pedestrian and Bicycle Safety Research project included two workshops to gather public input into the appropriate technology and content to provide.
- The World Wide Web site proposed as a result of these meetings and research activities is under development and should be available in October 1999.

6. Identify means and provide resources to translate appropriate research and other bicyclist/pedestrian literature from foreign language sources. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Provided access to international research and experience that would not otherwise have been available through a Scanning Tour of European countries (1994-1995).
- Commissioned research summaries from six countries as part of an investigation of innovative bicycle facility treatments (1995).
- Commissioned research summaries from five countries as part of an investigation of innovative pedestrian facility treatments (1997).

USDOT still needs to:

- Identify a mechanism to translate key documents from languages such as German, Danish, Japanese and Dutch into English.

7. Investigate the quantification of the projected reductions in emissions as a result of provisions for bicyclists and pedestrians in air quality nonattainment areas. (OST, FHWA)

Actions: USDOT has

- Not acted on this item.

USDOT still needs to:

- Complete this research.

8. Establish a national nonmotorized transportation center and clearinghouse. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Established the National Bicycle and Pedestrian Clearinghouse in 1994. The NBPC developed a series of fact sheets and disseminated thousands of USDOT publications. FHWA support for the Clearinghouse ceased in 1998.
- Reviewed applications for the TEA-21-mandated Bicycle and Pedestrian Safety Grant to establish a Technical Information Center, develop and disseminate bicycle and pedestrian materials, techniques and strategies. The contract will be awarded in the Spring of 1999.
- Established the National Transportation Enhancements Clearinghouse in 1996.

9. Conduct research on patronage estimation and mode split modeling for bicycle and pedestrian services and facilities. (FTA)

Actions: USDOT has

- Not acted on this item.

USDOT still needs to:

- Complete this research.

Action Item 9.

Serve as positive national presence and role model.

1. Offer and provide technical information within the agencies of the USDOT, their field offices, and outside the agency as appropriate. (OST, FHWA, NHTSA, FTA)
2. Encourage the use of bicycling and walking as agency policy. (OST, FHWA, NHTSA, FTA)
3. Present bicycling and walking as legitimate transportation options in speeches and other public communications. (OST, FHWA, NHTSA, FTA)
4. Participate in national and regional conferences to promote bicycling and walking. (OST, FHWA, NHTSA, FTA)
5. Assimilate examples of successful projects and promotion programs for distribution. (OST, FHWA, NHTSA, FTA)

USDOT Response to Action Item 9.

1. Offer and provide technical information within the agencies of the USDOT, their field offices, and outside the agency as appropriate. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Undertaken a wide variety of activities both internally and externally to offer and provide technical information on bicycle and pedestrian issues. These actions are detailed throughout the response to the preceding eight action items.

2. Encourage the use of bicycling and walking as agency policy. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Actively participated in the annual bike to work event in Washington, DC.
- Drafted an Executive Order on Managing Federal Workforce Transportation that encourages employees and visitors to walk and bicycle as a means of commuting.

USDOT still needs to:

- Ensure the planning, design and operation of DOT buildings and facilities (including any new headquarters building) provides access for people with disabilities; promotes bicycling and walking by employees, contractors and visitors; and contributes to the livability of the surrounding community.

3. Present bicycling and walking as legitimate transportation options in speeches and other public communications. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Included bicycling and walking in speeches of senior administration officials (Secretary, Deputy Secretary, Associate Deputy Secretary, Modal Administrators) at conferences and meetings on bicycle and pedestrian related topics.
- Developed display materials and events (e.g. Walk Our Children to School Week) that represent bicycling and walking as legitimate transportation modes.

4. Participate in national and regional conferences to promote bicycling and walking. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Supported a wide range of national, State and regional conferences with sponsorship, promotion, and speakers. These have included bicycle and pedestrian conferences, trail and greenway conferences and symposia, transportation safety conferences, and bicycle and pedestrian tracks within other national conferences.

5. Assimilate examples of successful projects and promotion programs for distribution. (OST, FHWA, NHTSA, FTA)

Actions: USDOT has

- Published *Improving Conditions for Bicycling and Walking: A Best Practices Report*. 1998.
- The 1998 Excellence in Highway Design awards recognized a number of bicycle and pedestrian related projects including the Historic Columbia River Highway

- State Trail (OR), the Pen Yan Main Street Bridge (NY), the Grasshopper bridge (AZ) and the Assateague Island Pedestrian bridge (MD).
- Published *More than Asphalt, Concrete and Steel*, a report which recognizes bicycle and pedestrian improvements in Port of Kalama, WA; Puerto Rico; and Chicago, IL.
 - Distributed *Traffic Safety Digest: A Compendium of Innovative State and Local Traffic Safety Programs*.
 - Initiated a *Compendium of Research in Pedestrian and Bicycle Safety* (1999).

Appendix 2 – USDOT Activities, 1999-2004

The Federal Action Plan

Action Item 1

Provide technical guidance in the interpretation of national transportation legislation and distribute other technical information.

Action Item 2

Fully integrate consideration of bicyclist and pedestrian needs into planning; design; operational policies and procedures; and suggested usage, accident rate, and evaluation methodologies.

Action Item 3

Provide funding for a bicycle and pedestrian friendly infrastructure that includes new facilities and infrastructure retrofitting and education for all road users, and enforcement programs for all road users.

Action Item 4

Provide initial and continuing education and training for planning and engineering professionals which encourages routine consideration of the needs of bicyclists and pedestrians.

Action Item 5

Conduct promotional and awareness activities, both to increase the level of bicycling and walking for all trip purposes and to legitimize these travel modes within the transportation system.

Action Item 6

Carry out activities that increase the safety of bicycling and walking.

Action Item 7

Provide outreach to other government agencies and develop new public/private partnerships to safely increase bicycling and walking usage levels.

Action Item 8

Conduct research and develop effective methods of technology transfer.

Action Item 9

Serve as positive national presence and role model.

Action Item 1

Provide technical guidance in the interpretation of national transportation legislation and distribute other technical information.

1. Develop guidance and regulations as required to implement the bicycle and pedestrian provisions of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), including information on funding sources, State and Metropolitan Planning Organization (MPO) planning requirements, and the State department of transportation (DOT) bicycle and pedestrian coordinator positions (FHWA).

Note: The Transportation Equity Act for the 21st Century (TEA-21) is the successor to ISTEA and was enacted on June 9, 1998 as Public Law 105-178.

Actions:

- Issued program guidance on the *Bicycle and Pedestrian Provisions of the Federal Transportation Program* (www.fhwa.dot.gov/environment/bikeped/bp-broch.htm) which details all the major funding sources available for bicycle and pedestrian projects. (FHWA, 1999)
- Issued program guidance on the Transportation Enhancements Program (<http://www.fhwa.dot.gov/environment/te/guidance.htm>). (FHWA, 1999)
- Issued program guidance on the Recreational Trails Program (<http://www.fhwa.dot.gov/environment/rectrails/guidance.htm>). (FHWA, 1999)
- Issued "Design Guidance" language as required in TEA-21 legislation. (FHWA, 2000)
- Developed and maintained websites for the Bicycle and Pedestrian Program, Transportation Enhancement Activities, and the Recreational Trails Program. (FHWA, 1999-2004)
- Funds and supports operation of National Transportation Enhancements Clearinghouse (www.enhancements.org). (FHWA, 1999-2004)
- Delivered numerous presentations on bicycle and pedestrian-related provisions in Federal surface transportation laws to workshops, conferences, and other events over the past five years. (FHWA, NHTSA, BTS, FTA, FRA)

Action Needed:

- Update the 1992 guidance on the role and functions of the State bicycle and pedestrian coordinator position.
- Update 23 CFR Part 652-Pedestrian and Bicycle Accommodations and Projects (the Code of Federal Regulations) to reflect the changes made by ISTEA and TEA-21.
NOTE: An update of this section of Federal Regulations is planned after reauthorization of TEA-21 or passage of new surface transportation legislation.
- Provide more guidance to FHWA Division staff, States, MPOs, and Federal Lands Highway offices on ways to integrate bicycle and pedestrian programs within their existing activities.

2. Develop guidance as needed on the use of bicycle and pedestrian programs to meet the goals of the Clean Air Act Amendments. (OST, FHWA)

Actions:

- Included bicycle and pedestrian information in FHWA program guidance on the Congestion Mitigation and Air Quality Improvement (CMAQ) program. (FHWA, 1999)

- Included case studies of bicycle and pedestrian projects in a variety of CMAQ publications including an interactive display unit featuring the CMAQ program. (FHWA)
- Issued guidance on quantifying the air quality and congestion relief impacts of investments in bicycle and pedestrian infrastructure and promotions. (FHWA)
- Established ongoing partnerships with local communities to boost alternative modes of transportation related to transit access. Partnerships include storage of bicycles in secure, indoor, and accessible facilities adjacent to public transit. Car sharing is also available at some partner sites. (FTA)

Action Needed:

- Develop and issue explicit guidance on the use of bicycle and pedestrian programs to meet the goals of the Clean Air Act Amendments.
- Continue providing technical assistance and case studies to assist in quantifying the air quality and congestion relief impacts of investments in bicycle and pedestrian infrastructure and promotions.

3. Distribute the findings of the National Bicycling and Walking Study and develop an implementation plan for carrying out the Federal action items. (OST, FHWA, NHTSA, FTA)

Actions:

- Distributed approximately 25,000 copies of the NBWS Final Report, 10,000 copies of the Executive Summary, and more than 15,000 copies of the 24 case studies since original publication. (FHWA, NHTSA)
- Issued a Five Year Progress Report. (FHWA, 1999)

Action Needed:

- Develop an implementation plan for carrying out all applicable Federal action items.
- Develop and make available on applicable websites digital copies of the National Bicycling and Walking Study and all 24 case studies.
- Update ten-year old plan elements of National Bicycling and Walking Study.

4. Develop and distribute a brochure describing and promoting opportunities in the FTA program for bicycle and pedestrian projects. (FTA)

Actions:

- Published and distributed *Bicycles and Transit* brochure, describing how transit agencies are strengthening the connections between bicycles and transit and how Federal transportation programs may be used to support more of these efforts. (FTA, 2000)

Action Needed:

- Implement an outreach program to transit operators to assist them in developing bicycle- and pedestrian-friendly policies, projects, and programs. (FTA)
- Pursue the development of a brochure highlighting successful projects that safely combine bicycle (and pedestrian) travel with railroad use. (FRA)

5. Assimilate other technical information and distribute it as appropriate. (OST, FHWA, NHTSA, FTA)

Actions:

- Published a wide variety of reports and other resources based on FHWA and NHTSA research, State and local best practices, and international experience. (FHWA, NHTSA)
- Published *Designing Sidewalks and Trails for Access*, a two-part resource manual detailing how State and local agencies develop sidewalks and trails to meet the requirements of the Americans with Disabilities Act. Part 1 was a review of existing guidelines and practices; Part 2 is a best practices guide. (FHWA, part 1 – 1999; part 2 – 2001)
- Worked closely with the American Association of State Highway and Transportation Officials (AASHTO), the National Committee on Uniform Traffic Control Devices and the National Committee on Uniform Traffic Laws and Ordinances to update the bicycle and pedestrian sections of key documents. (FHWA)
- Worked in partnership with the Consumer Product Safety Council to publicize new bicycle helmet standards. (NHTSA, 1999)
- Released annual traffic safety reports, including Traffic Safety Facts for “Pedalcyclists,” and “Pedestrians.” (NHTSA)
- Developed the *National Strategies for Advancing Bicycle Safety*, an agenda including a three to five-year plan, in partnership of USDOT (NHTSA and FHWA) and the U.S. Department of Health and Human Services (Centers for Disease Control and Prevention and the National Center for Injury Prevention and Control). Wide dissemination of the product was accomplished through all partners including nonprofit, university settings, research groups, and national groups such as Safe Kids, etc. (NHTSA, FHWA)
- Provided Federal funds in 2002 and 2004 to support the *National Strategies for Advancing Bicycle Safety*. The grants include programs to educate various population groups regarding road safety and laws related to bicycling. Programs include education of law enforcement officers, middle school children, college staff and students, and employees at the worksite. Greater emphasis in 2004 will be on high risk or underserved populations and education of motorists regarding sharing the road. (NHTSA)
- Developed *National Strategies for Advancing Child Pedestrian Safety*, a joint effort between NHTSA and the Centers for Disease Control and Prevention to identify and promote effective solutions to child pedestrian safety problems. (NHTSA, FHWA)

Action Needed:

- Maintain current level of activities.

6. Conduct briefings for field, State and local offices on bicycle and pedestrian program issues. (FHWA, NHTSA, FTA)

Actions:

- Made presentations on bicycle and pedestrian program issues in many States and USDOT field offices including AZ, CA, CO, DC, FL, GA, IA, IL, IN, ME, NY, OR, RI, SC, TX, WA. (FHWA, NHTSA)
- Organized annual meetings of the State Bicycle and Pedestrian Coordinators, to which FHWA and NHTSA headquarters and field staff are invited. Recently developed material and policy guidance is distributed at these meetings. (FHWA, 1999-2003)

- Initiated a series of State-level meetings between all those involved in implementing bicycle and pedestrian projects through Federal surface transportation legislation (including FHWA Division Offices, Governors Highway Safety Representatives, Bicycle and Pedestrian Coordinators, Transportation Enhancement Coordinators, advocacy groups, and others). (FHWA)

Action Needed:

- Better train and work with USDOT field staff to ensure that they are able to address the needs of bicyclists and pedestrians.

7. Provide materials on bicycle and pedestrian issues to national organizations. (OST, FHWA, NHTSA, FTA)

Actions:

- Made a wide array of publications and other resources available to a diverse and growing number of national organizations. (1999-2004) Notable activities include:
 - Provided national funding summaries, technical documents, and policy papers to groups such as the League of American Bicyclists, the National Center for Bicycling and Walking, and America Walks. (FHWA, NHTSA)
 - Following release of *Bicycle and Pedestrian Data: Sources, Needs, & Gaps* (BTS, 2000), worked with national pedestrian and bicycling groups to refine questionnaire development of 2002 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, and distributed initial Highlights Report. (BTS, NHTSA, 2003)
 - Created, modified, and distributed Pedestrian and Bicycle Crash Analysis Tool (PBCAT) software to assist State and local government record keeping and problem identification. (FHWA, 1999-2004)
 - Disseminated a report on pedestrian travel, *Omnistats: Pedestrian Travel During 2002* (BTS, 2003)
 - Disseminated a report on bicycle use, *Omnistats: Bicycle Use Among Adult US Residents* (BTS, 2002)
 - Disseminated a report with bicycle and pedestrian trip information, *NHTS 2001 Highlights Report* (BTS, 2003)
 - Disseminated a report having information on biking and walking of disabled and non-disabled persons, *Freedom to Travel* (BTS, 2003)
 - Developed a series of Spanish-language materials to address older adult and child pedestrian safety issues. (FHWA, NHTSA, 1999-2003)
 - Published national newsletter on transit connected mobility options with focus on pedestrian and bicycle connections to transit. This publication, the *Mobility Connection*, on a bi-monthly basis explores a wide array of new approaches to providing affordable, personal mobility options connected to train and bus stations. (FTA, 2003)
- Facilitated distribution of materials to national organizations through support of national conferences including Transportation Research Board, National Bike Summit, National Pedestrian Congress, and others. (FHWA, NHTSA, 1999-2004)
- Established a Pedestrian and Bicycle Information Clearinghouse, in accordance with TEA-21, to provide technical assistance on bicycle and pedestrian issues to national organizations and make information available to all interested parties. (FHWA, NHTSA)
- Developed extensive educational and informational materials and community assessment tools to support and advance pedestrian and bicycle safety, and distributed materials to diverse organizations such as the American Public Health

Association, General Federation of Women's Clubs, Emergency Nurses Association, National Association of City and County Health Officials, National SAFE KIDS Campaign, Centers for Disease Control and Prevention, Maternal and Child Health Bureau, Coalition of Hispanic Health Organizations, and numerous others. (NHTSA)

Action Needed:

- Maintain current level of activities.

Action Item 2.

Fully integrate consideration of bicyclist and pedestrian needs into planning; design; operational policies and procedures; and suggested usage, accident rate, and evaluation methodologies.

1. As appropriate, include consideration of bicyclist and pedestrian needs into revisions of DOT policies and procedures. (OST, FHWA, NHTSA, FTA)

Actions:

- Developed proposed legislation continuing major funding programs and eligibility for Pedestrian and Bicycle programs, Transportation Enhancements, Recreational Trails, and Federal Lands Highway programs for surface transportation program reauthorization, and fully integrated these elements into the SAFETEA proposal. (FHWA, 2003-2004)
- *Included in the FHWA Strategic Plan* that the FHWA vision is "to create the safest and most efficient and effective highway and intermodal transportation system in the world for the American people--a transportation system where everyone has access within and beyond their community and to the world; a transportation system where crashes, delays, and congestion are significantly reduced;" ... "a system where roads protect ecosystems and where travel on our roadways does not degrade the quality of the air; a system where pedestrians and bicyclists are accommodated..."
- Issued FHWA program guidance to implement the bicycle and pedestrian provisions of Federal surface transportation legislation. (FHWA, 1999)
- Issued FHWA Design Guidance language that called on transportation decision makers to routinely include provisions for bicyclists and pedestrians unless exceptional circumstances were present. (FHWA, 2000)
- Constructed a transportation database for all modes (required in TEA-21, see 49 U.S.C. 111(d)). Called "TranStats" (www.transtats.bts.gov), it makes bicycle and pedestrian data available on volume and patterns of movement. To date, TranStats contains six databases related to biking and walking. (BTS)
- Included in the NHTSA 1998 strategic plan is a specific goal of reducing pedestrian fatality and injury rates. Established goal to reduce pedestrian fatality rates to 2.0 and the injury rate to 30.6 per 100,000 people by 2000. By 2002, the pedestrian fatality rate had fallen to 1.67 and the injury rate was down to 25 per 100,000. NHTSA continues to include goals to reduce pedestrian and bicycle fatalities in its annual performance plan; for FY05, the goal is to reduce all non-occupant fatalities to 0.16 per million miles of vehicle miles traveled. (NHTSA)
- Participated in USDOT Secretary's Disability Law Coordinating Council to ensure nondiscrimination in FHWA activities and products having implications for pedestrian travel. (FHWA)

Action Needed:

- Integrate pedestrian and bicycle issues of planning, design, and operation into all programs, documents, manuals, and guidance that affect bicycling or walking.
- Build expertise in various program areas that are responsible for overseeing the design, planning, and operation of facilities or programs that influence pedestrian and bicycle travel.
- Increase bicycle and pedestrian consideration in core internal planning and operations documents such as the USDOT Strategic Plan and the modal administrations' performance measure plans.
 - The current *USDOT Strategic Plan* includes specific mention of building expertise in bicycle and pedestrian issues and reference to protecting pedestrians near roads.
 - The current *NHTSA 2020 Report* strategic plan includes pedestrian issues as they relate to the aging population and bicycling issues in the context of increasing helmet use.
- Maintain and improve overall awareness of bicycle and pedestrian issues within the senior levels of the USDOT so that the stated priorities of the agency and modal administrations are translated into actions.

2. Distribute the revised policies and procedures to field offices. (FHWA, NHTSA, FTA)

Actions:

- Distributed two Guidance documents and a series of memoranda that highlight the agency's commitment to bicycle and pedestrian issues in response to legislative changes in TEA-21. Maintain regular communications about bicycle and pedestrian policies and procedures with field offices through phone conferences, electronic newsletters, email lists, and meetings at conferences. (FHWA, 1999-2004)
- Regularly distribute updated policies to Regional Offices via intranet system. (NHTSA, 1999-2004)
- Preparing to update policies and procedures in response to expected passage and enactment of surface transportation reauthorization legislation. (FHWA, NHTSA, FTA, 2004)

Action Needed:

- Incorporate bicycle and pedestrian issues into the statements of overall policy and procedure of the USDOT so that the issues are integrated into the ongoing activities of transportation agencies and regional offices.

3. Coordinate bicycle and pedestrian efforts with the Office of Intermodalism and with the Bureau of Transportation Statistics. (OST, FHWA, NHTSA, FTA)

Actions:

- Developed *Bicycle and Pedestrian Data: Sources, Gaps, and Needs*, to identify existing data environment and develop strategy for increased collection of data. (BTS, 2000)
- Conducted the *2001 National Household Transportation Survey*, which collected bicycle and pedestrian trip information. The two agencies are continuing collaboration on data analysis and release. (FHWA, BTS, 2001-2004)
- Conducted the *2002 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors*, which focused on bicycle and pedestrian trip level data. An initial

Highlights Report was released in 2003. The two agencies are continuing collaboration on data analysis and release. (NHTSA, BTS, 2002-2004)

- Developed the Millennium Trails Initiative and continues to work closely with the Office of Intermodalism on incorporation of bicycle and pedestrian needs into policy. (OST, FHWA)

Action Needed:

- Continue to develop and advance data collection efforts to respond to BTS *Bicycle and Pedestrian Data: Sources, Gaps, and Needs* report. FHWA and NHTSA should continue to participate in data collection and analysis efforts, to further increase understanding, effective application, and distribution of results.

4. Encourage AASHTO to incorporate appropriate criteria for accommodation of bicyclists and pedestrians into their design, construction policies, standards and guides. (FHWA)

Actions:

- Worked with AASHTO's Technical Committee on Geometric Design to incorporate appropriate information in their documents. (FHWA, 1999-2004)
- Supported AASHTO preparation and publication of the *Guide for the Development of Bicycle Facilities* in 1999. Copies of the document were provided to Division Offices by memorandum dated Aug. 4, 1999. The design information balances the needs of all highway users, and encourages the consideration of bicycling in all phases of transportation. The *Guide* states "All highways except those where cyclists are legally prohibited, should be designed and constructed under the assumption that they will be used by cyclists." (FHWA, 1999)
- *A Policy on Geometric Design of Highways and Streets, 2001* contains additional information pertaining to considering the needs of pedestrians and bicyclists in appropriate locations when designing a road. FHWA has adopted the *Policy* as the minimum criteria for projects on the National Highway System. (FHWA, 2001)
- Supporting AASHTO development and publication of the *Guide for the Planning, Design, and Operation of Pedestrian Facilities*. This document was extensively coordinated with the pedestrian community during development. The AASHTO Standing Committee on Highways approved the guide in April 2004. It will be published in Summer 2004, and FHWA will then incorporate it into our recommended design practices. (FHWA, 2003-2004)

5. Recommend revisions to the "Manual of Uniform Traffic Control Devices" and the "Highway Capacity Manual" to ensure appropriate consideration of bicyclists and pedestrians. (FHWA)

Actions:

- Worked closely with the National Committee on Uniform Traffic Control Devices Task Force on Bicycling on revisions to Part IX of the MUTCD. (FHWA)
- Revisions and additions were made to the new 2003 MUTCD, which was published in November 2003, on traffic control devices for pedestrians and bicyclists. (FHWA)
- Contributed articles to ITE Journal about innovative traffic control devices. (FHWA, 2002)
- Worked closely with the US Access Board to include traffic control devices in the MUTCD that meet the needs of persons with disabilities such as accessible pedestrian

signals and longitudinal barriers for alternate pedestrian paths in and around work zones (FHWA)

- Completed a series of technical reports to update *Highway Capacity Manual* chapters related to pedestrians and bicyclists: (FHWA, 2003)
 - Recommended Procedures for the "Signalized Intersections" Chapter of the *Highway Capacity Manual*;
 - Recommended Procedures for the "Pedestrians" Chapter of the *Highway Capacity Manual*; and
 - Recommended Procedures for the "Bicycles" Chapter of the *Highway Capacity Manual*.

Action Needed:

- Include more pedestrian and bicycle-related innovative traffic control devices in the MUTCD, including:
 - Develop a brochure outlining the MUTCD experimentation and rulemaking processes, and
 - Ensure bicyclist and pedestrian interests are considered in all MUTCD rulemaking activities.

6. Encourage the revision of State and local planning and design policies and procedures to include consideration of bicyclists and pedestrians as appropriate. (FHWA)

Actions:

- Delivered more than 40 *Bicycle and Pedestrian Safety and Accommodations* courses through the National Highway Institute – the course includes extensive coverage of design and planning issues. (FHWA, NHTSA)
- The *Design Guidance* language issued in February 2000 calls for the routine inclusion of bicyclists and pedestrians in planning and design in State and local processes. (FHWA, 2000)
- Developed two-part publication with material on compliance with the Americans with Disabilities Act. *Designing Trails for Access* includes material about best practices and practical application of accessible sidewalks, trails, and multi-use paths in accordance with ADA requirements. (FHWA)
- Presented Americans with Disabilities Act facilities planning and design best practices *Train-the-Trainer Course* to over 35 instructors who will be available as experts and instructors for local communities on planning and designing ADA-compliant pedestrian facilities. (FHWA, 2004)
- Published *Implementing Pedestrian Improvements at the Local Level*. (1999) A companion publication, *Implementing Bicycle Improvements at the Local Level*, was published in 1998. (FHWA, 1999)
- Developing, in conjunction with the Centers for Disease Control and Prevention, a Safe Routes to School course for delivery to communities seeking to improve conditions and safety issues around schools. The course includes extensive materials relating to planning and design of pedestrian and bicycle facilities. It will be completed in mid-2004 and delivery will start in late 2004. (NHTSA, FHWA, 2003-2004)
- Participates in US Access Board's rulemaking for updating the national design standards for pedestrian travel in public rights-of-way. (FHWA, 2002-2004)
- Developed and delivered bicycle and pedestrian facility design courses. (FHWA)

Action Needed:

- Develop and distribute self-evaluation tools that allow communities to evaluate their current effectiveness in incorporating bicycle and pedestrian needs in developing and planning new facilities. Such a tool will also be useful when developing local bicycle and pedestrian plans.

7. Encourage and publicize intermodal projects which include bicycle and/or pedestrian components. (OST, FHWA, NHTSA, FTA)

Note: ISTEA and TEA-21 included a number of new policies that address this Federal Action Item. These include Transportation Enhancements, "Transit Enhancements" (described below), CMAQ, and giving States an increased range of options for applying Federal transportation funds.

Actions:

- Under the Transportation Enhancements Program, over 10,000 projects have been funded by DOT since 1992. Enhancements funds can be used for twelve eligible categories of activities, including pedestrian and bicycle projects that have a transportation element. Approximately 54 percent of these have had some bicycle- or pedestrian-related element. Over \$422 million was obligated in 2003 to States for pedestrian or bicycle improvements. (FHWA)
- Makes grants following the Urbanized Area Formula (established in TEA-21) to urbanized areas with a population of 200,000 and greater. The grants are used to fund a "transit enhancements" program, similar to the Transportation Enhancements program administered by FHWA. Eligible projects must enhance mass transportation service, and may include pedestrian access and walkways; bicycle access, including bicycle storage facilities and installing equipment for transporting bicycles on mass transportation vehicles; and enhanced access to mass transportation for persons with disabilities. Over \$6.8 million was obligated in FY2002 for improving bicycle and pedestrian access to transit under this program. (FTA)
- Publishes Mobility Connection, a national newsletter on transit connected mobility options. It explores a wide array of approaches to providing affordable, personal mobility options connected to train and bus stations, regularly including pedestrian and bicycle-related information. (FTA)

8. Encourage State safety offices to include consideration of bicyclists and pedestrians into their policies and procedures. (FHWA, NHTSA)

Actions:

- Encouraged State Highway Safety Offices to include programs to impact bicycle and pedestrian issues in their annual highway safety plans. (NHTSA)
- Conducts annual meetings with State bicycle pedestrian safety coordinators. (FHWA, NHTSA)
- Delivered electronic newsletter to field offices regarding pedestrian safety. (FHWA)

9. Investigate the collection of use, crash/accident rate, and evaluation data. Develop and test model usage, crash/accident rate, and evaluation methodologies and encourage their use by State and local officials. Assimilate and distribute this information. (OST, FHWA, NHTSA, FTA)

Actions:

- Collection and evaluation of data is done by NHTSA's National Center for Statistics and Analysis. Fatalities are expressed via the Fatality Analysis Reporting System (FARS) and injuries via the General Estimates System (GES). This data is collected and shared in a number of formats including: hard copies of area specific data- fact sheets, hard copy- one large report, and via the Internet on the agency website. (NHTSA)
- Funding a study including approximately 30 case studies of localities and States collecting bicycle and pedestrian use and facility extent data. The study is expected to be released in late 2004. (FHWA)
- Completed a report entitled *Injuries to Pedestrians and Bicyclists: An Analysis Based on Hospital Emergency Department Data*, which used available data to investigate all crashes involving pedestrians and bicyclists regardless of motor vehicle involvement or whether the accident occurred on a public right-of-way. (FHWA)
- Made the Pedestrian and Bicycle Crash Analysis Tool (PBCAT) available online. PBCAT is a software program allowing categorization of pedestrian and bicycle crashes into common behavioral classes or types. (FHWA)
- Prepared draft report entitled *Characteristics of Emerging Road and Trail Users and Their Safety* contains a section that evaluates different methods of collecting crash data. (FHWA)
- Conducting Pedestrian Deployment Projects in Las Vegas, San Francisco, and Miami Dade. Final report will be available in 2007. (FHWA)
- Preparing to conduct review of collection of police data at crash sites as it relates to bicycle injuries and fatalities. (NHTSA)
- Developed countermeasures and implemented a research study in Phoenix, AZ leading to a thirteen percent overall reduction in crash involvement among older pedestrians and a forty-six percent reduction in targeted zones. (NHTSA)
- Developed countermeasures and implemented a research study in Baltimore, MD to reduce alcohol-related pedestrians crashes. (NHTSA)

Action Needed:

- Continue with collection, analysis, and distribution of data relating to use, crash/accident rate, and compatibility/level-of-service data.
- Develop and distribute model predicting bicycle and pedestrian usage that can be applied at the local level for safety, engineering, and planning facilities and land use.
- Continue implementing results of *Bicycle and Pedestrian Data: Sources, Gaps, and Needs* (2000), which identified existing data environment and developed strategy for increased collection and analysis of data.
- Continue to develop countermeasures for increasing driver compliance rates, and reducing alcohol-related crashes among target groups. (NHTSA)

10. Develop prototype seating configurations and hardware to accommodate bicycles on commuter and intercity rail and bus lines. (FTA)

Note: Intercity rail lines are not an FTA responsibility.

Actions:

- U.S. DOT has not acted on this item.

Action Needed:

- Promote the work of rail and transit providers to the broader rail and transit agencies.

11. Encourage liberalized policies by Amtrak for bicycle carriage on rail. (FTA)

Note: Bicycle carriage on rail is not an FTA responsibility.

Actions:

- Participated with a number of partners on the Amtrak *Bikes on Board* Program. This effort resulted in a number of trains using part of baggage capacity for bicycle transport. (FHWA)

Action Needed:

- Identify FRA as the appropriate agency through which to work cooperatively with the railroad industry and address the issues of bicycle carriage on passenger trains.

Action Item 3

Provide funding for a bicycle and pedestrian friendly infrastructure that includes new facilities and infrastructure retrofitting and education for all road users, and enforcement programs for all road users.

1. Actively promote the use of Federal-aid transportation funds for bicycle and pedestrian projects. Follow up to determine the amount of money spent in each State. Publicize the expenditures and funding sources. (FHWA, NHTSA)

Actions:

- Appendix Three of this Ten Year Progress Report includes the first release of State-reported spending on pedestrian and bicycle facilities from 1999 to 2003. It also includes a table of overall Federal spending on bicycle and pedestrian facilities. (FHWA)
- Encouraged the use of Federal-aid funds for bicycle and pedestrian projects and programs. Specifically, FHWA developed and distributed a funding brochure was developed and distributed to explain the TEA-21 legislation. FHWA publishes the amount of Federal-aid money spent annually at a national level on bicycle and pedestrian projects and programs. (FHWA)
- Provided Federal funds in 2002 and 2004 to support the *National Strategies for Advancing Bicycle Safety*. The grants include programs to educate various population groups regarding road safety and laws related to bicycling. Programs include education of law enforcement officers, middle school children, college staff and students, and employees at the worksite. Greater emphasis in 2004 will be on high risk or underserved populations and education of motorists regarding sharing the road. (NHTSA)
- Provides bicycle and pedestrian program guidance and additional information in brochure and online formats (www.fhwa.dot.gov/environment/bikeped/). These information sources also point out that almost all major Federal-aid highway program funding categories may be used for projects that benefit bicyclist and pedestrians. (FHWA)

- Provides bicycle and pedestrian safety program guidance and additional information, including brochures, fact sheets, research studies, etc., that may be downloaded at www.nhtsa.dot.gov. (NHTSA)
- Federal-aid surface transportation funding obligations for bicycle and pedestrian projects are posted at www.fhwa.dot.gov/environment/bikeped/bipedfund.htm. (FHWA)
- The National Transportation Enhancements Clearinghouse has a database of TE projects at www.enhancements.org. (FHWA)
- The Recreational Trails Program project database is at www.funoutdoors.info/rtphome.html. (FHWA)

Action Needed:

- Continue to promote States' use of Federal-aid transportation funds for bicycle and pedestrian projects.
- Improve the way in which the agency tracks expenditures on bicycle and pedestrian projects that are an incidental feature of larger projects. Encourage States to adopt a standardized reporting format for consistency in tracking actual monies spent on bicycle and pedestrian projects and programs.
- Encourage and assist States and MPOs in the speedier implementation of bicycle and pedestrian projects using Federal-aid funds.

2. Actively encourage Section 402 funding to be used on bicycle and pedestrian safety programs. (FHWA, NHTSA)

Actions:

- Initiated the Pedestrian Safety Roadshow, a citizen action workshop that has been delivered in more than 50 communities, which focuses on a variety of pedestrian safety programs including those funded by Section 402 State and Community Traffic Safety Program. More than 150 trainers have been trained to deliver the Roadshow. (FHWA, NHTSA)
 - Since 1997, over \$78 million has been made available to States under Section 402 bicycle and pedestrian safety programs. (NHTSA)
3. Encourage the use of Title III, Section 25 funds for facilities and programs enhancing multimodal transit trips which include bicycle and pedestrian components. (FTA)

Actions:

- Makes grants using Title III, Section 25 funds to urbanized areas with a population of 200,000 and greater. The grants are used to fund a "transit enhancements" program, similar to the Transportation Enhancements program administered by FHWA. Eligible projects must enhance mass transportation service, and may include pedestrian access and walkways; bicycle access, including bicycle storage facilities and installing equipment for transporting bicycles on mass transportation vehicles; and enhanced access to mass transportation for persons with disabilities. Over \$6.8 million was obligated in FY2002 for improving bicycle and pedestrian access to transit under this program. (FTA)

4. Refine and promote educational and enforcement programs for all road users relating to bicyclists and pedestrians. (NHTSA, FHWA, FTA)

Actions:

- Maintained an active, ongoing program to provide a wide range of literature and resources on bicycle and pedestrian safety programs including:
 - Sponsorship of the Pedestrian Safety Campaign and ongoing evaluation. (FHWA)
 - Developed *Safer Journey* CD-ROMs (one each for Pedestrians and Bicyclists in Spanish and English). (FHWA)
 - Implemented two new safety trainings for law enforcement education regarding issues to improve and promote safety for pedalcyclists and enforcement of laws for both bikers and motorists: (1) a comprehensive train the trainer program-Community Bicycle Safety for Law Enforcement, and (2) a two-hour training for police officers on bicycle safety. (NHTSA)
 - Developed a CD-ROM featuring a comprehensive description of vehicle and traffic laws that have the potential to enhance pedestrian or bicycle safety. (NHTSA)
- Awarded three cooperative grants in 2003 to local law enforcement agencies in Ohio, Massachusetts, and Wisconsin to develop model pedestrian safety enforcement campaigns. (NHTSA, 2003)
- Conducted *Good Practices in Pedestrian Safety* project, which identified several cities of various sizes that have developed comprehensive pedestrian safety programs to increase walking as a means of transportation, to improve the physical environment in which people need to walk and live, and to reduce the number of pedestrian crashes. (NHTSA)
- Funding *Pedestrian and Motorist Compliance Resulting from Increased Enforcement* study to determine whether it is possible to modify and sustain motorist compliance to pedestrian yield the right of way laws at intersection or crosswalk locations through increased law enforcement. (NHTSA)
- Updating *Enforcement Strategies for Pedestrian Safety* manual for law enforcement use. The revision will include more information on law enforcement strategies and best practices, a marketing plan for promoting pedestrian safety to law enforcement agencies, and recommendations for new materials. (NHTSA)

Action Item 4.

Provide initial and continuing education and training for planning and engineering professionals which encourages routine consideration of the needs of bicyclists and pedestrians.

1. Refine and continue providing training for transportation officials in field, State, MPO, and local offices on bicycle and pedestrian accommodations and safety. (FHWA, NHTSA)

Actions:

- Delivered 'Train-the-Trainer' implementation design course for ADA-related sidewalk and trail planning and design. (FHWA, 2004)
- Conducted and distributed study on available nonmotorized trip generation methodologies to train and inform State, MPO, and local transportation professionals about planning and engineering needs. (FHWA, 1999)
- Developed a bicycle and a pedestrian facility design course through the National Highway Institute. (FHWA, 1999)

- Works cooperatively with the League of American Bicyclists, who has trained over 400 League Cycling Instructors nationally to provide bicycle safety courses. Instructors are easily located on the League's website (www.bikeleague.org), and scheduled course are publicized on the website. (NHTSA)
- Created and pilot-tested a *Bicycle Safety Roadshow* modeled after the *Pedestrian Safety Roadshow*. The purpose of the program is to bring together a diverse mix of community leaders and bicycle experts to address bicycle safety, including directing community leaders to existing resources, programs, and people that can specifically help them address critical bicycling-related issues in the community. The *Roadshow* also raises awareness of bicycle safety issues within the community and identifies potential countermeasures and programs. (NHTSA, 2003)
- Developing three new products related to pedestrian and bicycle safety and accommodations: (FHWA, 2003-2004)
 - One-day course about developing pedestrian and bicycle programs that include partnerships with non-transportation organizations from fields such as education and public health.
 - 45-minute module for decisionmakers to highlight benefits of pedestrian and bicycle projects at the local level.
 - An on-line technical course relating to bicycle and pedestrian safety and accommodation.
- Developing a National Safe Routes to School course and pilot test to develop a framework and curriculum for a workshop style course to train engineers, planners, safety educators, public health officials, school officials, police, and community members on how to plan and properly accommodate new schools and how to retrofit old schools for safe walking and bicycling. These workshops will also serve as a training curriculum for State-level instructors and resource staff. (NHTSA, FHWA, in conjunction with Centers for Disease Control and Prevention and the Environmental Protection Agency)

Action Needed:

- Build expertise in all program areas that are related to designing, planning, and operating facilities or programs that influence pedestrian and bicycle travel.
- Refine and continue providing training for transportation officials to ensure that new professionals are given adequate training to perform their duties.

2. Provide training opportunities and technical assistance to State Department of Transportation bicycle and pedestrian coordinators. (FHWA, NHTSA)

Actions:

- Convened annual meetings of the State DOT bicycle and pedestrian coordinators. Provides detailed information about current training opportunities at each annual meeting. (FHWA)
- Promoted all National Highway Institute (NHI) bicycle and pedestrian courses through the State DOT bicycle and pedestrian coordinators. (FHWA, NHTSA)
- Facilitated bimonthly conference calls of the State bicycle and pedestrian coordinators, and participates in a listserv of the coordinators. (FHWA)
- Invited State DOT personnel and NHTSA Bicycle/Pedestrian Regional Coordinators to participate in training that allows participants to learn about current safety programs available through federal funds at the local or state levels. (NHTSA)

3. Investigate the development of a core bicycle and pedestrian curriculum for inclusion in transportation engineering courses at the undergraduate, graduate, and continuing education levels. (FHWA)

Actions:

- Developed and currently updating the *FHWA Course on Bicycle and Pedestrian Transportation*, which is intended for inclusion in transportation, planning, design, and engineering curricula. The course is modular and intended for graduate-level audiences, but can be used for undergraduate or continuing education. (FHWA)
- Hosted workshops for 75-80 professors on University-level Pedestrian-Bicyclist planning and design course development. Created and will soon post website for accessing materials. (FHWA, 2003-2004)

4. Investigate development of a training course on bicyclist and pedestrian facility planning and design. (FHWA)

Actions:

- Developed numerous training courses on bicycle and pedestrian facility design, including bicycle and pedestrian facility design training courses, a three-day *Bicycle and Pedestrian Safety and Accommodation* course through NHI that includes a substantial amount of facility planning and design information, and an ADA implementation design course. (FHWA)

Action Needed:

- Develop and deliver a course or course materials on pedestrian crossings at railway-highway intersections.

5. Provide training for local transit officials on designing bicyclist-friendly parking facilities, on-vehicle carriage programs, interfaces for bicyclists and pedestrians with transit, and access features approaching and at transit centers. (FTA, FHWA)

Actions:

- Publishes *Mobility Connection*, a national newsletter on transit connected mobility options. It explores a wide array of approaches to providing affordable, personal mobility options connected to train and bus stations. (FTA)

Action Needed:

- Integrate bicycle and pedestrian integration into American Public Transit Association (APTA) and FTA courses, resources and materials.
- Complete and publish the results of an FHWA/FRA study into the feasibility of rails-with-trails facilities and their linkage to transit services.

Action Item 5.

Conduct promotional and awareness activities, both to increase the level of bicycling and walking for all trip purposes and to legitimize these travel modes within the transportation system.

1. Coordinate activities of the USDOT with other Federal agencies. Convene regular meetings of representatives of the Federal agencies involved in bicycling and pedestrian issues to develop new programs and to exchange information. (OST, FHWA, NHTSA, FTA)

Actions:

- The Federal Interagency Task Force on Bicycling and Walking met until early 2003 to coordinate activities among federal agencies. (OST)
- DOT staff from OST, FHWA, NHTSA, FTA, FRA, and BTS regularly participate in USDOT "Bicycle/Pedestrian Share Meetings".
- Joined Federal Interagency Memorandum of Understanding on Public Health and Recreation, to help promote walking and bicycling as healthy forms of transportation. (FHWA)
- Created a Task Force on Rails-with-Trails to coordinate the response and role of FHWA, NHTSA, FRA, OST, and FTA on this emerging issue.
- Co-chaired and participated in the National Bicycle Safety Network, a public-private partnership to promote safe bicycling with partners such as the League of American Bicyclists, Centers for Disease Control and Prevention, and Maternal and Child Health Bureau. (NHTSA, FHWA)
- Participated in the Interagency Trails Council meetings hosted by Department of the Interior/National Park Service. (FHWA)
- Developed the Millennium Trails Initiative in partnership with the White House Millennium Council. (FHWA)
- Worked with the U.S. Access Board on sidewalk accessibility and the accessibility of outdoor developed areas. (FHWA, NHTSA)

Action Needed:

- Continue and renew activities and coordination of Federal Interagency Task Force on Bicycling and Walking, with participation from participation from the General Services Administration (GSA), the Environmental Protection Agency (EPA), the Centers for disease Control (CDC), the Department of the Interior (DOI), the US Department of Agriculture (USDA), the Presidents Council on Physical Fitness and Sports, the Department of Defense (DOD), and national and local bicycle and pedestrian interest groups.

2. Include specific promotional references to bicycling and walking in speeches, policy documents and regulations, press releases, news articles and other information released to the public. Actively promote and sponsor events such as National Bicycle Month and bicycle and pedestrian conferences. (OST, FHWA, NHTSA, FTA)

Actions:

- Helped sponsor the National Bike Summit, Lifesavers National Conference on Highway Safety, Transportation Research Board meetings, the Pro-Walk/Pro-Bike Conference, World Health Day, and similar events. USDOT officials participated in

conference panels on reauthorization and other bicycle and pedestrian-related topics, including World Health Day. (FHWA, NHTSA)

- FHWA Administrator has spoken to the League of American Bicyclists, to recreation advocacy organizations, etc. (FHWA)
- NHTSA Administrator was the guest speaker at the National Bike Summit in 2003. (NHTSA)
- Support International Walk to School Day/Week each October. Modal Administrators have spoken at these press events. (NHTSA, FHWA)

Action Needed:

- Continue to integrate bicycling and walking into USDOT presentations at mainstream transportation conferences such as AASHTO, TRB, ITE, APA, ASCE, APTA, and Railvolution.
- Include references to bicycling and walking in speeches, presentations and other activities that are not just addressed to the bicycling and walking community, but also to the construction, traffic engineering, motor vehicle, trucking, and planning audiences.

3. Conduct briefings for field, State, MPO and local offices on bicycle and pedestrian program issues. Conduct site visits of exemplary programs and pass on information to other localities. (OST, FHWA, NHTSA, FTA)

Actions:

- Regularly brief DOT field, State DOT, MPO, and local bicycle-pedestrian coordinators through email communications, conference presentations, and phone conferences about bicycle and pedestrian program issues. (OST, FHWA, NHTSA)
- Developed a compendium of current practices- documenting programs in bicycle safety; *Safe Routes To School- Practice and Promise*; Review of exemplary on-bike safety training programs with a compare/contrast of simulated training versus in traffic training. (NHTSA, FHWA)

Action Needed:

- Conduct site visits of exemplary programs, compile and disseminate information to other localities.
- Improve utilization of communication via agencies' websites for quick and easy access for professionals and the general public.

4. Encourage and coordinate activities to measure the amount of bicycling and walking in the United States and ensure this data is compatible with crash/accident data. (OST, FHWA, NHTSA, FTA)

Actions:

- Providing funding to the Pedestrian and Bicycle Information Center to develop approximately 30 case studies of localities collecting bicycle and pedestrian use and facility extent data. (FHWA)
- BTS developed *Bicycle and Pedestrian Data: Sources, Gaps, and Needs*, to identify existing data environment and develop strategy for increased collection of data, and analysis of bicycle and pedestrian-related data. (BTS, 2000)
- FHWA and BTS jointly conducted the *2001 National Household Transportation Survey*, which collected bicycle and pedestrian trip information.

- NHTSA and BTS jointly conducted the *2002 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors*, which focused on bicycle and pedestrian trip level data.
- BTS conducted the *Omnibus Household Survey*, which provided monthly estimates of the number of persons biking and walking.

Action Needed:

- Develop estimated correction factors of National Personal Transportation Survey (NPTS) historical bicycling and walking data to evaluate changes in bicycling and walking in the United States over time.
 - Develop training and education programs to increase observational data collection about bicycling and walking.
5. Develop and provide information to transit providers and to potential and actual transit users on multimodal trips including bicycling and walking. (FTA)

Actions:

U.S. DOT has taken no action on this item.

6. Implement a national campaign to promote increased and safer use of bicycling and walking. (OST, FHWA, NHTSA, FTA)

Actions:

- Developed Pedestrian Safety Campaign materials for national use, conducting evaluation in 3 cities. Over 200 local communities have used the materials. (FHWA)
- Participating in various national Safe Routes to School campaigns promoting walking and bicycling to school. (NHTSA, FHWA)
- Providing mini-grants to develop and pilot test bicycling programs for various audiences over a four-year period. Once fully tested, effective programs will be modified and adopted into national campaign initiatives. (NHTSA)
- Supported development of *Bikeability Checklist* and *Walkability Checklist* – easy to use resources to garner support and involvement of the community in accessing the safety of their community and provide guidance of options to follow once problems are identified. (NHTSA, FHWA)
- Implementing *National Strategies for Advancing Child Pedestrian Safety*, an action plan designed to enhance the well-being and safety of children by reducing their risk of injury while walking and to increase their physical activity level. (NHTSA)

Action Item 6.

Carry out activities that increase the safety of bicycling and walking.

1. Encourage the collection of data for evaluating the effectiveness of bicycle and pedestrian safety programs. (OST, FHWA, NHTSA, FTA)

Actions:

- Conducted the 2002 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, which focused on bicyclist and pedestrian safety practices. Questions also

addressed safety perceptions and desired pedestrian and bicycling environments. Data analysis and distribution is ongoing. (NHTSA, BTS, 2002)

- Effectiveness evaluation of bicycle and pedestrian programs is a NHTSA program goal for 2005. All bicycle and pedestrian programs and materials will be tested or evaluated to establish how they are being utilized and what changes might be appropriate. (NHTSA)
- Funding update to the *Pedestrian and Bicycle Crash Analysis Tool (PBCAT)* software, which standardizes data entry and increases local capacity for analysis relating to bicycle and pedestrian crashes. (FHWA, NHTSA, 2003-2004)
- Conducted a study in Peoria IL and Phoenix AZ to reduce speeding in residential neighborhoods. (NHTSA)
- Conducting a study in Miami/Dade County to reduce the occurrence of pedestrian crashes of all ages. (NHTSA)
- Conducting a study to identify alternatives for reducing alcohol-related pedestrian crashes. (NHTSA)
- Conducting a study to increase motorist compliance to pedestrian right-of-way laws. (NHTSA)

Action Needed:

- Develop an outreach program to promote the benefits of different pedestrian countermeasures as cost-effective solutions to pedestrian crash problems.

2. Promote and disseminate the results of Section 402 bicycle and pedestrian safety programs. (FHWA, NHTSA)

Actions:

- Published *Traffic Safety Digest: A Compendium of Innovative State and Local Traffic Safety Projects* which includes descriptions of pedestrian and bicycle safety initiatives. (NHTSA)
- Published the *Safety Countermeasures* newsletter and a series of *Traffic Tech Notes* that highlight successful and interesting projects funded with Section 402 money. (NHTSA)
- Since 1997, over \$78 million has been made available to States under Section 402 for bicycle and pedestrian safety programs. (NHTSA)

3. Develop a data collection methodology for bicyclist and pedestrian use estimates and for exposure measures in crash/accident rate calculations. (FHWA, NHTSA)

Actions:

- Providing funding to the Pedestrian and Bicycle Information Center to develop approximately 30 case studies of localities collecting bicycle and pedestrian use and facility extent data. (FHWA)
- Conducting research to prepare and publish *Identification of Alternative Methodologies for Collecting Pedestrian Exposure & Crash Data*. (NHTSA, FHWA)

Action Needed:

- Complete this action item.
- Collect and analyze data related to pedestrian crossings of railroad lines and trespasser activity on railroad corridors.

4. Encourage and actively promote helmet use among bicyclists of all ages. (OST, FHWA, NHTSA, FTA)

Actions:

- Co-chair the National Bicycle Safety Network. (NHTSA)
- Developed and published a range of materials on bicycle helmets including:
 - *Good Practices Guide for Bicycle Safety Education* includes case studies and advice on planning bicycle safety programs, including helmet-related education. (FHWA)
 - *What's New About Bicycle Helmets*, flyer. (NHTSA)
 - *Use Your Head Before You Buy a Bicycle Helmet*, poster and flyer (NHTSA)
 - *Be Head Smart*, brochure. (NHTSA)
 - *Ride Smart. It's Time to Start* – Bicycle Video. Bicycle helmet use for targeted audience middle school children. (NHTSA, 2002)
 - *Bike Safe. Bike Smart*. This video is a sequel to above – same age for targeted audience but related to safe riding practices. (NHTSA, 2004 – awaiting release)
 - *Adults and Bicycle Safety*. Includes rules of the road, helmet use, education on structural changes to roads and signage, and includes responsibility of motorists in promoting bicycle safety. (NHTSA, under development 2004)

5. Investigate bicyclist and pedestrian crashes which do not involve motor vehicles and those which occur off the roadway. (OST, FHWA, NHTSA)

Note: The current Fatality Analysis Reporting System (FARS), operated by NHTSA, tracks all fatal crashes that occur on a roadway and involve a motor vehicle. It does not collect data about nonmotorized crashes or those not occurring on roadways.

Actions:

- Producing the report *Rails-with-Trails: Lessons Learned* to improve safety for pedestrians and bicyclists using trails near active railroad and transit lines. The report should be available to the public in mid-2004. (FHWA, FRA, NHTSA, FTA, 2004)
- Completed *Injuries to Pedestrians and Bicyclists: An Analysis Based on Hospital Emergency Department Data* report. (FHWA)
- Upcoming report, *Characteristics of Emerging Road and Trail Users and Their Safety*, contains a section that evaluates different methods of collecting crash data for alternative modes of transportation. (FHWA, 2004)
- Update of Pedestrian and Bicycle Information Material and Crash Data (CD-ROM) will be available winter 2005. (NHTSA)

Action Needed:

- Modify existing crash data collection system to include complete range of reported bicycle and pedestrian crashes, including those that do not occur on a roadway or do not involve a motor vehicle.
- Investigate possibility of conducting special studies of bicycle and pedestrian crashes that do not occur on public rights-of-way.

6. Widely promote the use of Walk Alert and other pedestrian safety program materials. (FHWA, NHTSA)

Actions:

- NHTSA has developed new pedestrian safety materials to replace the Walk Alert materials:
 - Pedestrian Safety Toolkit – User Manual and Resource Guide
 - Prevent Pedestrian Crashes (for elementary education pupils)
 - Stepping Out – a guide aimed at seniors to encourage them to walk more often and to do so in a safe manner.
 - Zone Guide for Pedestrian Safety – how to focus pedestrian safety efforts in a concentrated area within a town to achieve greater effectiveness than throughout the entire town or city.

7. Cooperate with other agencies and organizations to develop and promote a Bicycle Safety Program for use at the local level. (FHWA, NHTSA)

Actions:

- The *National Strategies for Advancing Bicycle Safety*, which was available to the public in June 2001, is the collaborative efforts of a number of federal agencies and bicycle safety experts. (NHTSA)
- Funding the Pedestrian and Bicycle Information Center's development of a national Safe Routes to School training course for delivery to State and local level participants. The course will include a number of elements promoting bicycle safety. (FHWA, NHTSA, 2004)
- Awarded mini-grants to national, state and local organizations to develop and promote Bicycle Safety Programs in direct support of the goals and strategies outlined in the *National Strategies for Advancing Bicycle Safety* guidelines. Grants were awarded in 2002 and will again be awarded in 2004. (NHTSA)
- Funding the League of American Bicyclists (LAB) to develop and test a Safe Routes to School curriculum and materials on safe walking and bicycling for middle school students. The curriculum will be taught by LAB Cycling Instructors to teachers and/or professionals (NHTSA, 2004).

8. Collect crash/accident data involving pedestrians, bicyclists, and transit vehicles, develop countermeasures for these crashes/accidents and test these countermeasures. (FTA)

Actions:

- Producing the report *Rails-with-Trails: Lessons Learned* to improve safety for pedestrians and bicyclists using trails near active railroad and transit lines. The report should be available to the public in mid-2004. (FHWA, FRA, NHTSA, FTA, 2004)

Action Needed:

- Address other transit-related crash data and countermeasures for pedestrians and bicyclists to complete this action item.

Action Item 7.

Provide outreach to other government agencies and develop new public/private partnerships to safely increase bicycling and walking usage levels.

1. Initiate contact with other Federal agencies to learn of their efforts relating to bicycling and walking both from a programmatic and from administrative aspects. Work with these agencies to use their resources to promote bicycling and walking, and to integrate consideration of bicycling and walking into their policies and programs where appropriate. (OST, FHWA, NHTSA, FTA)

Actions:

- The Federal Interagency Task Force on Bicycling and Walking met until early 2003 to coordinate activities among federal agencies. (OST)
- Joined Federal Interagency Memorandum of Understanding on Public Health and Recreation, to help promote walking and bicycling as healthy forms of transportation. (FHWA)
- Co-chair the National Bicycle Safety Network, a public-private partnership to promote safe bicycling with partners such as the League of American Bicyclists, Centers for Disease Control and Prevention, and Maternal and Child Health Bureau. (NHTSA)
- The League of American Bicyclists, through a cooperative agreement with NHTSA, has been made responsible for tracking notable efforts that support the *National Strategies for Advancing Bicycle Safety*- this means tracking other efforts to include those done through federal grant money but also initiatives done at the state, local, and organizational levels. This information is posted on their website: www.bikeleague.org. (NHTSA)
- FHWA and NHTSA staff participated in early meetings of the Safe Routes to School (SR2S) Committee convened by the League of American Bicyclists. The purpose of the group is to pull together and coordinate Federal, State, and local SR2S efforts.

Action Needed:

- Continue and renew activities and coordination of Federal Interagency Task Force on Bicycling and Walking, with participation from participation from GSA, EPA, CDC, DOT, DOI, USDA, the Presidents Council on Physical Fitness and Sports, DOD, and local bicycle interest groups.

2. Initiate contact, respond to inquiries, and work cooperatively with public and private organizations committed to promoting bicycling and walking and their safety. (OST, FHWA, NHTSA, FTA)

Actions:

- Works regularly with public health agencies to promote bicycling and walking. In addition, FHWA has coordinated efforts with the Robert Wood Johnson Foundation. (FHWA, NHTSA)
- Supports pedestrian and bicycle safety conferences that promote safe walking and biking, such as the *National Congress of Pedestrian Advocates*, *National Bike Summit*, and the *New Partners for Smart Growth Conference: Building Safe, Healthy and Livable Communities*. (NHTSA, FHWA)
- Established the Pedestrian and Bicycle Information Clearinghouse with the University of North Carolina's Highway Safety Research Center. PBIC provides information to help improve safety and increase bicycling and walking. It also responds to technical

inquiries relating to bicycle and pedestrian facility design, planning, and safety (www.pedbikeinfo.org). (FHWA, NHTSA, 1999-present)

- Established the National Transportation Enhancements Clearinghouse with the Rails-to-Trails Conservancy (www.enhancements.org). (FHWA, 1996-present).

3. Provide technical information, present briefings, or conduct workshops and conferences as appropriate. (OST, FHWA, NHTSA, FTA)

Actions:

- Participated in the National Bike Summit, ProWalk/ProBike Conferences, the National Trails Symposium, and in national meetings of AASHTO, ITE, ASCE, and the Partnership for a Walkable America. (FHWA, NHTSA, BTS)
- Presented bicycle and pedestrian information at numerous international, national, State, and local conferences, meetings, and workshops. (FHWA, NHTSA, BTS)
- Briefed the U.S. DOT Secretary, modal Administrators, other key agency officers, and members of Congress on bicycle and pedestrian issues. (FHWA, NHTSA)
- Completed numerous workshops on Creating Walkable Communities and Pedestrian Design Considerations. Developed websites with technical information and outreach materials. (FHWA)

4. Conduct a workshop to investigate the role of the transit industry in bicycle systems and services. (FTA)

Actions:

No action has been taken to complete this item.

Action Needed:

Conduct the workshop required for this action item.

5. Monitor and publicize ongoing projects to show the role of local transit agencies, MPOs, and other local organizations in developing and managing a comprehensive bicycle commuting system. (FTA)

Actions:

No action has been taken to complete this item.

Action Needed:

Complete this action item.

Action Item 8.

Conduct research and develop effective methods of technology transfer.

1. Coordinate Federal research activities both within and outside of the USDOT and make recommendations for studies as appropriate. (OST, FHWA, NHTSA, FTA)

Actions:

- Work with Transportation Research Board Pedestrian Committee and Bicycle Transportation Committee. (FHWA, NHTSA, BTS)
- Provided the 2002 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors questionnaire to a variety of organizations and stakeholders for their comments. The questionnaire was revised based on their comments. (NHTSA, BTS)
- Partnering with the US Forest Service Technology and Development Center to develop publications and guidelines for various kinds of trail uses. (FHWA)
- Participate in the internal DOT Pedestrian and Bicyclist Charter Group as well as the Pedestrian and Bicyclist Share Group Meeting. (FHWA, NHTSA, FTA, FRA, BTS)

Action Needed:

- Build expertise in various program areas, including research, that are related to designing, planning, and operating facilities or programs that influence pedestrian and bicycle travel.
- Continue to participate in the development of a coordinated national research agenda to address critical bicycle and pedestrian research needs.

2. Continue research activities relating to the safety of bicycling and walking. (FHWA, NHTSA, FTA)

Actions:

- Jointly conducted the 2002 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, which focused on bicyclist and pedestrian safety practices. (BTS, NHTSA)
- Completed a number of research activities related to pedestrian and bicycling facilities, including:
 - An Evaluation of Pedestrian Countdown Signals (FHWA)
 - Pedestrian Crosswalk Case Studies: Richmond, Virginia; Buffalo, New York; Stillwater, Minnesota (FHWA)
 - Pedestrian Facilities Users Guide: Providing Safety and Mobility (FHWA)
 - A Comparative Analysis of Bicycle Lanes Versus Wide Curb Lanes: Final Report (FHWA)
 - Safety Effects of Marked Vs. Unmarked Crosswalks at Uncontrolled Locations (FHWA)
 - An Analysis of Factors Contributing to 'Walking Along Roadway' Crashes: Research Study and Guidelines for Sidewalks and Walkways (FHWA)
 - The Effect of Crosswalk Markings on Vehicle Speeds in Maryland, Virginia, and Arizona (FHWA)
 - The Effects of Traffic Calming Measures on Pedestrian and Motorist Behavior (FHWA)
 - An Evaluation of High Visibility Crosswalk Treatment – Clearwater Florida (FHWA)
 - A Comparison Of Countdown Pedestrian Signal Display Strategies (FHWA)
 - A Comparison Of Pedestrian Signal Heads (FHWA)
 - Acceptable Speeds from the Pedestrian's Perspective (FHWA)
 - Pedestrian and Bicyclist Safety at Memorial Circle in Arlington, Virginia (FHWA)
 - Development of The Bicycle Compatibility Index (FHWA)
 - Evaluation of Bicycle Helmet Laws and Ordinances (NHTSA)
- Ongoing research projects include:
 - Update of *Pedestrian and Bicycle Information Material and Crash Data*; available Winter 2004 (NHTSA)

- Characteristics of Emerging Road and Trail Users and Their Safety (FHWA)
- Evaluation of Safety, Design, and Operation of Shared Use Paths (FHWA)
- Development and Test of Novel Speed Reducing Countermeasures Targeting Pedestrian Road Users in Residential Communities (NHTSA)
- Hazard Index for Assessing Pedestrian and Bicyclists Safety at Intersections (FHWA)
- Pedestrian Alert System (SBIR Phase II) (FHWA)
- Effects of In-Pavement Crosswalk Lighting on Pedestrian Safety (FHWA)
- Segway Human Transporter Research (FHWA)
- Evaluation of Alternative Approaches for Reducing Alcohol-Related Crashes Among Pedestrian Targets of Opportunity (NHTSA)

Action Needed:

- Identify more research funding within the Department to meet the on-going research needs in the bicycle and pedestrian area including measuring the effects of awareness, educational, and law enforcement programs on behavioral change and structural improvements; and measuring the effects of traffic calming measures and educational efforts on behaviors (NHTSA, FHWA) .

3. Conduct research into promoting the use of bicycling and walking, and measuring the effectiveness of such programs. (FHWA, NHTSA, FTA)

Actions:

- Currently conducting *Effectiveness of School-based Bicycle Safety Education Programs* study. Completion of this review of four existing comprehensive on-bike programs is expected in Fall 2005. (NHTSA)
- Proposing research for effectiveness of existing safety programs and materials for FY05. (NHTSA)

Action Needed:

- Conduct research necessary to complete this action item.

4. Actively investigate existing technology transfer activities (such as the FHWA Local Technical Assistance Program, National Highway Institute, FHWA Office of Technology Applications, and the NHTSA Regional Operations Program) and utilize them where appropriate. Where needed, develop new technology transfer activities. (OST, FHWA, NHTSA)

Actions:

- All U.S. DOT agencies take full advantage of the World Wide Web to make information about bicycle and pedestrian programs, research, and study widely available.
- The National Highway Institute (NHI) has worked with FHWA and NHTSA to develop bicycle and pedestrian courses and to review bicycle and pedestrian research products.

5. Conduct a workshop to investigate the shortcomings of traditional technology transfer activities relating to bicyclists and pedestrians. Develop solutions and

recommend their implementation in the DOT agencies. (OST, FHWA, NHTSA, FTA)

Note: A series of workshops were conducted during the first five years following release of the National Bicycling and Walking Study. After these workshops, comprehensive efforts to improve information transfer have been ongoing.

6. Identify means and provide resources to translate appropriate research and other bicyclist/pedestrian literature from foreign language sources. (OST, FHWA, NHTSA, FTA)

Actions:

- Completed a series of international pedestrian safety synthesis reports including report for Canada, the United Kingdom, Australia, The Netherlands, and Sweden. (FHWA)
- Provided a number of materials in Spanish, including:
 - Safer Journey (FHWA)
 - Caminado a Través de los Años Seguridad Peatones de Tercera Edad (*Walking Through the Years – Pedestrian Safety for Older Adults*) brochure and booklet. (NHTSA)
 - Caminando a Traves de los Anos – Seguridad Peatonal Para Niños (*Walking Through the Years – Pedestrian Safety for your child*) brochure. (NHTSA)
 - Tome Nota (Walkability Checklist). (NHTSA)
 - La Cita – a 30-min video in Spanish aimed at educating seniors on safe walking behaviors. (NHTSA)
 - Seguridad para peatones, ciclistas, y autobuses escolares (*Pedestrian, Bicycle, and School Bus Safety*) CD-ROM public service announcements. (NHTSA)
 - Peatón, Camine Con Precaución (Pedestrian, Walk Safely) brochure. (NHTSA)
 - Todos Somos Peatones (Everyone is a Pedestrian) brochures (FHWA)
 - Parts of the Pedestrian Safety Campaign materials are available in Spanish (FHWA)
 - *Be Smart. Bike Safe. Bicycle – A Guide for Parents, Teachers and Caregivers* (English/Spanish booklet and activities) (NHTSA)

Action Needed:

- Identify a mechanism to translate key documents from languages such as German, Danish, Japanese, and Dutch into English.
- Investigate the need to translate current documents into other languages (NHTSA and FHWA)

7. Investigate the quantification of the projected reductions in emissions as a result of provisions for bicyclists and pedestrians in air quality nonattainment areas. (OST, FHWA)

Actions:

- CMAQ Annual reports include emissions numbers for bicyclists and pedestrians. (FHWA)
- The 2002 National Academies of Science review of the CMAQ program includes a comprehensive, rigorous list of TCM effectiveness numbers, including bicycle and pedestrian-related results.

- Issuance of *A Sampling of Emissions Analysis Techniques* lists methods for analysis of TCM including for bicycle and pedestrian data. (FHWA, 2002)
 - CMAQ Annual reports are evolving to an automated system available to the States as they are prepared. Consequently, data will be available to catalog and list air quality benefits by project category, including bike and pedestrian efforts. These projects, by virtue of their CMAQ eligibility, will include emissions reductions. In addition to the environmental benefits, dollar investment can be tabulated by project, State, and year in addition to other project-specific information. (FHWA)
8. Establish a national nonmotorized transportation center and clearinghouse. (OST, FHWA, NHTSA, FTA)

Actions:

- In accordance with the requirements of TEA-21, the Pedestrian and Bicycle Information Center, operated by the University of North Carolina's Highway Safety Research Center, has been funded since June of 1999, and serves as the USDOT clearinghouse for nonmotorized transportation information. (www.pedbikeinfo.org). (FHWA, NHTSA)

9. Conduct research on patronage estimation and mode split modeling for bicycle and pedestrian services and facilities. (FTA)

Actions:

No action has been taken to complete this item.

Action Needed:

Complete this action item.

Action Item 9.

Serve as positive national presence and role model.

1. Offer and provide technical information within the agencies of the USDOT, their field offices, and outside the agency as appropriate. (OST, FHWA, NHTSA, FTA)

Actions:

- Undertaken a wide variety of activities both internally and externally to offer and provide technical information on bicycle and pedestrian issues. These actions are detailed throughout the response to the preceding eight action items. A monthly meeting is held to share information among agency staff members of the U.S. DOT with responsibilities for bicycling and walking. (OST, FHWA, NHTSA, FRA, FTA, BTS)
- Prepared and distributed a report on bicycle and pedestrian data gaps (*Bicycle and Pedestrian Data: Sources, Needs, & Gaps*). (BTS, 2000)
- Involved on an ongoing basis to provide technical information to other transportation related offices. Examples include recently completing a response to Missouri DOT regarding pedestrian fatalities on interstates; and reviewing and commenting on bicyclist safety research proposed by division office in Rhode Island. (FHWA)

2. Encourage the use of bicycling and walking as agency policy. (OST, FHWA, NHTSA, FTA)

Actions:

- Design Guidance language issued in February 2000 states FHWA support of bicycling and walking as modes of transportation and calls upon decisionmakers to routinely include provisions for them in all projects and programs unless exceptional circumstances exist. (FHWA)
- DOT at national headquarters and regional offices participate in National Bike to Work Days and Walk to Work Days, and related local events.

Action Needed:

- Ensure the planning, design and operation of DOT buildings and facilities (including any new headquarters building) provides access for people with disabilities; promotes bicycling and walking by employees, contractors and visitors; and contributes to the livability of the surrounding community.

3. Present bicycling and walking as legitimate transportation options in speeches and other public communications. (OST, FHWA, NHTSA, FTA)

Actions:

- Included bicycling and walking in speeches of senior administration officials (Secretary, Deputy Secretary, Associate Deputy Secretary, Modal Administrators) at conferences and meetings on bicycle and pedestrian related topics.
- Developed display materials and events (e.g. Walk Our Children to School Week) that represent bicycling and walking as legitimate transportation modes.

4. Participate in national and regional conferences to promote bicycling and walking. (OST, FHWA, NHTSA, FTA)

Actions:

- Supported a wide range of national, State, and regional conferences with sponsorship, promotion, and speakers. These have included bicycle and pedestrian conferences, trail and greenway conferences and symposia, transportation safety conferences, and bicycle and pedestrian tracks within other national conferences. Recent examples include:
 - Sponsorship and participation in the National Bike Summits, Pedestrian Advocates Congresses, ProWalk/ProBike Conferences, the National Trails Symposia, International Mountain Bicycling conferences, and in national meetings of AASHTO, ASCE, and the Partnership for a Walkable America. (FHWA, NHTSA, BTS)
 - Presentation on the availability of bicycle and pedestrian survey data at the 2003 National Bike Summit meetings. (NHTSA, BTS)
 - Presentation on the 2002 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors at the 2003 International Conference on Walking. (BTS, NHTSA)
 - Participate in professional conferences and meetings including: Institute of Transportation Engineers, Transportation Research Board, Pedestrian and Bicycles States Coordinators meetings, Association of Pedestrian and Bicyclist Professionals meetings, American Planning Association, and regional intersection safety workshops. (FHWA, NHTSA, BTS)

5. Assimilate examples of successful projects and promotion programs for distribution. (OST, FHWA, NHTSA, FTA)

Actions:

- The Pedestrian and Bicycle Information Center maintains a website that shows examples of successful products and promotional programs. (FHWA, NHTSA)
- The Pedestrian and Bicyclist Expert Systems are under development, with approximately 75 to 50 case studies each. In addition, these case studies are mentioned in the quarterly *Pedestrian Forum newsletter* when they come up.
- Compilation of strategies and lessons learned from the 2002 mini-grants that support the National Strategies For Advancing Bicycle Safety. (NHTSA)
- Existing or upcoming publications that highlight successful programs include:
 - Safe Routes to School: Practice and Promise – release expected mid-2004 (NHTSA)
 - Good Practices Guide For Bicycle Safety Education (FHWA)

Appendix 3: Spending on Bicycle and Pedestrian Facilities and Programs

Table 1:

FY 1992 to 2003 Federal-aid Highway Program Funding for Pedestrian and Bicycle Facilities and Programs

(Millions of Dollars)

Year	Total Obligations	CMAQ	CMAQ Percent	Transportation Enhancements	TE Percent	STP Safety	Safety Percent	Other STP	Other STP Percent	All Other Obligations	Other Percent
1992	\$22.9	\$0	0.0%	\$13.1	57.2%	\$0	0.0%	\$6.4	27.9%	\$3.4	14.8%
1993	\$33.7	\$3.3	9.8%	\$23.8	70.9%	\$0	0.0%	\$2.3	6.9%	\$4.2	12.5%
1994	\$112.6	\$2.7	2.4%	\$96.9	86.1%	\$0	0.0%	\$7.0	6.2%	\$6.0	5.3%
1995	\$178.6	\$9.0	5.0%	\$150.7	84.4%	\$0	0.0%	\$13.6	7.6%	\$5.4	3.0%
1996	\$197.2	\$19.3	9.8%	\$153.9	78.1%	\$0	0.0%	\$15.4	7.8%	\$8.5	4.3%
1997	\$238.8	\$25.0	10.5%	\$179.2	75.0%	\$0	0.0%	\$14.0	5.9%	\$20.6	8.6%
1998	\$216.5	\$15.9	7.3%	\$151.5	70.0%	\$2.0	0.9%	\$14.0	6.5%	\$33.1	15.3%
1999	\$204.2	\$12.6	6.2%	\$153.9	75.4%	\$0.9	0.4%	\$19.1	9.4%	\$17.6	8.6%
2000	\$296.7	\$34.4	11.6%	\$217.5	73.3%	\$2.2	0.7%	\$17.3	5.8%	\$25.3	8.5%
2001	\$339.1	\$44.3	13.1%	\$224.3	66.1%	\$4.8	1.4%	\$30.0	8.8%	\$35.8	10.5%
2002	\$415.9	\$44.1	10.6%	\$270.1	65.1%	\$1.6	0.4%	\$36.7	8.8%	\$62.7	15.1%
2003	\$422.7	\$34.4	8.1%	\$276.5	65.4%	\$0.8	0.2%	\$30.4	7.2%	\$80.6	19.1%

Source: FHWA Fiscal Management Information System

- *New projects* are projects obligated for the first time in a particular fiscal year. *Total obligations* includes new obligations for new projects, new obligations for previously obligated projects (projects funded over more than one fiscal year), and deobligations for previously obligated projects (funded in one or more previous fiscal years, but final costs are lower than the original estimated cost). Therefore, dividing *total obligations* by *new projects* does not provide a meaningful result.
- These figures show projects coded as bicycle and pedestrian projects. FMIS does not have separate codes for pedestrian-only or bicycle-only projects.
- Projects coded as a bicycle/pedestrian projects usually are independent bicycle/pedestrian projects. The obligations above probably exclude many bicycle/pedestrian components of larger highway projects. Therefore, actual Federal-aid obligations for bicycle and pedestrian facilities are larger, but not quantifiable.

Table 2:

FY1999-2003 State-by-State Federal-Aid Highway Program Funding for Pedestrian and Bicycle Facilities and Programs

Note: The following table presents State-reported spending (rounded to the nearest dollar) on pedestrian and bicycle facilities and programs during fiscal years 1999 to 2003. It is critical to note that not all States follow the same reporting procedures, so the table is not a complete representation of actual spending in States. For example, some States report only spending on independent bicycle and pedestrian projects or programs, but not on facilities that are constructed as part of a larger project. By comparison, some States report all aspects of bicycle and pedestrian-related spending, regardless of whether the facility is embedded in a larger project or is an independent project or program. ***Readers are strongly discouraged from using this table to draw comparisons between individual States' spending patterns without understanding how each State reports spending.***

STATE	1999	2000	2001	2002	2003	1999-2003
Alabama	\$3,777,824	\$5,774,970	\$7,424,174	\$5,884,337	\$5,411,898	\$28,273,204
Alaska	\$7,104,146	\$10,607,384	\$9,034,324	\$15,618,855	\$20,319,631	\$62,684,339
Arizona	\$5,062,015	\$3,685,592	\$4,014,089	\$1,748,668	\$5,644,479	\$20,154,843
Arkansas	\$2,566,771	\$5,594,444	\$14,298,799	\$7,751,867	\$8,832,060	\$39,043,941
California	\$4,382,911	\$31,725,549	\$28,850,925	\$35,635,184	\$17,662,591	\$118,257,160
Colorado	\$5,122,009	\$2,454,282	\$5,651,120	\$3,804,446	\$8,776,231	\$25,808,087
Connecticut	\$2,143,563	\$4,026,974	\$470,507	\$6,618,713	\$2,472,000	\$15,731,758
Delaware	\$2,837,015	\$2,443,456	\$2,071,445	\$4,679,710	\$3,805,741	\$15,837,366
Dist of Columbia	\$0	\$58,205	\$0	\$2,996,227	\$298,301	\$3,352,733
Florida	\$19,598,562	\$13,678,871	\$13,587,789	\$41,044,118	\$11,124,467	\$99,033,807
Georgia	\$4,312,144	\$11,486,822	\$24,777,044	\$13,722,645	\$41,226,187	\$95,524,842
Hawaii	\$2,727,514	\$1,044,307	\$3,104,170	(\$810,675)	\$13,709,873	\$19,775,189
Idaho	\$1,539,075	\$3,142,466	\$5,321,705	\$3,934,415	\$1,747,815	\$15,685,475
Illinois	\$5,758,903	\$20,796,791	\$8,562,043	\$6,353,761	\$12,081,926	\$53,553,424

STATE	1999	2000	2001	2002	2003	1999-2003
Indiana	\$6,458,432	\$5,918,358	\$11,536,518	\$7,988,492	\$11,052,648	\$42,954,447.45
Iowa	\$2,795,091	\$3,781,799	\$4,062,897	\$7,417,536	\$8,116,055	\$26,173,377
Kansas	\$882,242	\$2,139,230	\$3,257,916	\$12,566,034	(\$1,840,660)	\$17,004,763
Kentucky	\$5,868,671	\$8,057,336	\$7,356,774	\$9,949,090	\$11,430,995	\$42,662,866
Louisiana	\$2,475,518	\$5,758,141	\$4,172,690	\$7,758,168	\$5,002,399	\$25,166,915
Maine	\$1,343,510	\$1,642,843	\$814,727	\$2,952,262	\$908,137	\$7,661,479
Maryland	\$7,196,640	\$1,475,225	\$5,687,465	\$5,672,759	\$5,827,494	\$25,859,583
Massachusetts	\$12,171,988	\$8,958,898	\$19,864,883	(\$9,733,686)	\$6,078,959	\$37,341,043
Michigan	\$7,020,344	\$7,674,819	\$8,402,701	\$9,915,295	\$6,433,748	\$39,446,907
Minnesota	\$4,625,201	\$18,328,165	\$10,527,002	\$8,861,549	\$10,764,107	\$53,106,025
Mississippi	\$3,930,738	\$2,669,224	\$196,537	\$2,233,043	(\$34,603)	\$8,994,939
Missouri	\$3,575,847	\$6,162,184	\$15,969,127	\$20,475,741	\$19,078,554	\$65,261,453
Montana	\$3,508,765	\$2,040,648	\$3,291,874	\$3,676,050	\$2,208,818	\$14,726,153
Nebraska	\$2,693,007	\$3,234,437	\$7,429,401	\$5,039,793	\$2,791,176	\$21,187,814
Nevada	\$1,503,874	\$1,065,809	\$1,024,376	\$2,704,687	\$1,942,402	\$8,241,147
New Hampshire	\$1,607,189	\$2,882,203	\$2,251,085	\$4,953,763	\$3,166,837	\$14,861,077
New Jersey	\$1,689,968	\$5,182,932	\$6,353,567	\$3,464,458	\$6,999,248	\$23,690,173
New Mexico	\$1,538,956	\$1,398,167	\$4,124,146	\$3,161,389	\$902,353	\$11,125,011
New York	\$2,248,026	\$15,582,486	\$12,781,205	\$14,486,840	\$28,903,886	\$74,002,443
North Carolina	\$10,978,246	\$4,793,565	\$6,380,450	\$8,243,782	\$6,099,377	\$36,495,420
North Dakota	\$1,691,162	\$1,239,197	\$1,267,526	\$3,270,920	\$1,879,067	\$9,347,873
Ohio	\$15,579,528	\$9,438,456	\$6,248,270	\$6,504,010	\$14,210,014	\$51,980,278
Oklahoma	\$1,799,062	\$3,315,264	\$6,284,127	\$4,413,352	\$11,133,826	\$26,945,631
Oregon	\$8,089,196	\$3,133,129	\$2,945,713	\$4,936,875	\$6,211,092	\$25,316,004

STATE	1999	2000	2001	2002	2003	1999-2003
Pennsylvania	(\$111,132)	\$5,676,869	\$11,020,829	\$9,754,430	\$9,031,143	\$35,372,138
Puerto Rico	\$680,000	\$1,060	\$0	(\$783,346)	\$92,569	(\$9,717)
Rhode Island	\$1,903,535	\$2,560,033	\$3,204,462	\$8,872,309	\$10,839,203	\$27,379,541
South Carolina	\$1,376,605	\$826,376	\$1,261,796	\$1,637,008	\$2,542,302	\$7,644,085
South Dakota	\$1,182,701	\$189,601	\$743,859	\$622,139	\$836,474	\$3,574,774
Tennessee	\$4,525,860	\$5,735,398	\$3,703,840	\$20,622,443	\$12,174,238	\$46,761,778
Texas	\$3,111,916	\$13,876,224	\$5,026,943	\$23,079,678	\$30,910,210	\$76,004,971
Utah	\$1,775,767	\$3,707,907	\$1,753,711	\$4,566,981	(\$957,803)	\$10,846,564
Vermont	\$2,063,158	\$4,648,273	\$2,510,089	\$6,191,542	\$6,949,651	\$22,362,713
Virginia	\$944,571	\$4,330,397	\$4,260,777	\$9,045,542	\$7,540,631	\$26,121,918
Washington	\$2,297,614	\$4,875,198	\$10,841,897	\$16,512,001	\$10,338,197	\$44,864,907
West Virginia	\$24,000	\$42,521	\$189,026	\$1,024,657	\$536,264	\$1,816,468
Wisconsin	\$2,916,682	\$6,127,839	\$14,102,620	\$11,037,611	\$7,080,674	\$41,265,425
Wyoming	\$3,058,819	\$1,639,465	\$1,121,889	\$3,821,258	\$2,378,054	\$12,019,485
American Samoa	\$0	\$0	\$0	\$0	\$0	\$0
Guam	\$0	\$0	\$0	\$0	\$0	\$0
Northern Mariana Is	\$270,000	\$67,409	\$0	\$0	\$0	\$337,409
Virgin Islands	\$0	\$0	\$0	\$0	\$0	\$0
USA TOTAL	\$204,223,745	\$296,697,200	\$339,140,846	\$415,898,726	\$422,670,934	\$1,678,631,451

Source: FHWA Fiscal Management Information System