

**2006 James L. Oberstar Forum on
Transportation Policy and Technology**

Transportation Choices:
The Important Role of Walking and Biking
A Summary Report





2006 James L. Oberstar Forum

To the Reader,

This report summarizes the fifth James L. Oberstar Forum on Transportation Policy and Technology. Over two days, we examined ways to integrate non-motorized transportation options into our communities and our daily lives.

As in previous years, we owe much of this forum's continued success to the many new and returning regional and national transportation policymakers and professionals, who, following the lead of Congressman Oberstar, participated with passion and commitment to the public good. As a result of their creativity, wisdom, and experience, they have provided fresh inspiration to further improve and broaden our transportation system.

We hope the ideas assembled in this report contribute to the development of meaningful and lasting advancements in transportation.

Robert Johns
Director, Center for Transportation Studies



About the Forum

The James L. Oberstar Forum, hosted by the University of Minnesota's Center for Transportation Studies, was created to examine and improve national transportation policy by facilitating an open exchange of ideas and experiences among state, national, and international leaders in transportation and academia. The forum is named in honor of Minnesota Congressman James L. Oberstar, a long-time leader in creating national transportation policy and establishing research and education programs in transportation technology.

Oberstar, now serving in his 16th term as the representative from Minnesota's 8th Congressional District, is the senior Democrat on the House Transportation and Infrastructure Committee. In March, he received the inaugural NADO Lifetime Achievement Award for his four decades of dedication and leadership on federal economic development and transportation issues.



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James L. Oberstar Forum on Transportation Policy and Technology

April 9-10, 2006

Transportation Choices: The Importance of Walking and Biking Introduction

A diverse group of regional, national, and international officials, policymakers, and professionals joined U.S. Rep. James L. Oberstar on April 9 and 10, 2006, to explore the value of integrating non-motorized transportation into communities. This was the fifth meeting of the transportation policy and technology forum named in honor of Oberstar and hosted by the Center for Transportation Studies at the University of Minnesota.

Oberstar headlined the two-day event, which also featured Berthold Tillmann, mayor of Münster, Germany. Many other state and national leaders attended the forum.

“The cost of congestion in the U.S. today is \$68 billion dollars,” Oberstar said. “With growing concern over congestion, pollution, and public health, we have to promote bicycling and walking as alternatives for commuting and other utilitarian purposes.”

The portion of the event for invited leaders included a series of presentations and discussions following an introductory report on new perspectives surrounding non-motorized transportation from Parsons Brinckerhoff principal Steve Lockwood. Additionally, University of Minnesota researchers presented findings from their current Twin Cities biking and walking studies. Humphrey Institute of Public Affairs assistant professor Kevin Krizek discussed bicycling in terms of such factors as the built environment, personal preferences, lifestyles, and attitudes. Metropolitan Design Center director and professor Ann Forsyth discussed “walkable” environments and offered ideas for enticing people to walk more.

During a facilitated conversation, forum invitees scrutinized the benefits of investments in non-motorized transportation, the challenges for making non-motorized transportation a higher priority in planning and development, and the short- and long-term implications for public policy and programs. CTS director Robert Johns moderated the discussion.

In the public portion of the forum, Oberstar

offered his vision of non-motorized transportation for communities across the United States. Mayor Tillmann described many of his city’s bike-friendly features. Representatives from the four non-motorized transportation pilot program communities also were on hand to discuss the key elements of their respective programs. The four-year pilot study is part of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) legislation passed by Congress in July 2005.

Lea Schuster, executive director of Transit for Livable Communities in St. Paul, Minnesota, said a key challenge for the Twin Cities’ program is determining the best way to show results for such a large geographical area over a short time. Darwin Hindman, mayor of Columbia, Missouri, expressed hope that the city will become the “Münster of Missouri.” Shannon Haydin, planning director for Sheboygan County, Wisconsin, detailed the area’s shift to tourism dependent on biking and walking facilities. Steve Kinsey, a supervisor on the Marin County, California, board, described Marin County’s commitment to pedestrians and bicyclists for the past 15 years.

Participants then heard from Krizek and Forsyth, along with Billy Fields, director of research with the Rails-to-Trails Conservancy, regarding research implications for non-motorized transportation and needs relating to the four pilot programs. Fields outlined the challenge of bringing results to Congress within four years. Forsyth emphasized the importance of incorporating walking into the pilot evaluations. Krizek expressed hope that the pilot programs will reduce biking research uncertainties and better illuminate key factors influencing levels of cycling.

During his speech, Congressman Oberstar expressed a hope to mitigate numerous societal problems by changing the habits of an entire generation. “We must unravel past inadequacies and policy misjudgments to plan and implement change,” he urged. “To do this, we have to change attitudes.”



James L. Oberstar

This report summarizes the main events of the two-day forum on transportation policy and technology. More information about this and previous Oberstar forums may be found online at www.cts.umn.edu/oberstarforum.



New Perspectives on Non-Motorized Transportation



Steve Lockwood

According to Parsons Brinckerhoff principal Steve Lockwood, several issues recently have converged in today's suburbanized, automobile-dominated transportation environment to call greater attention to the role of non-motorized transportation (NMT) in our communities and in our daily lives.

Summarizing details of the white paper he prepared for the forum, Lockwood addressed some of the changes occurring over the last decade that today are driving this growing interest in NMT. He asserted that even quadrupling the number of people in the United States who walk and bike to work would not measurably lessen environmental and other harms from motorized vehicles. Instead, Lockwood suggested the "winning hand" in promoting walking and biking as transportation modes must include a focus on quality-of-life benefits that show short-term, dramatic payoffs.

"Traditional arguments for investment in NMT infrastructure focused on creating mobility options," he explained. "However, this transportation utility perspective has been broadened through a combination of NMT advocacy with lifestyle and environmental interests centered around the negative consequences of suburban sprawl and auto dependency." These motivations have been supplemented, he continued, by promoting active transportation as a public health measure in light of the so-called obesity epidemic and by rolling back the trend toward chauffeuring children to school through the creation of safe routes to school, enabling children to once again walk and bike to and from school.

"The mix of the accessibility, recreation, health, and auto-dependent sprawl concerns has enlarged the policy space for NMT," he noted. "But from a policy perspective, the subject of NMT presents a bit of a dilemma. Statistics are spotty and the literature appears to be heavily populated with advocacy. Thus, the overarching policy questions are whether NMT is, in fact, a transportation services issue or a lifestyle issue, and is that distinction important."

In addition, Lockwood pointed out that NMT represents a small portion of total travel when viewed in the context of conventional multimodal national transportation statistics. "The United States has relatively low rates of biking and walking compared with other

countries," he explained. "Some of the reasons for this may include low [population] density, destination distances, auto availability—if not domination—in the U.S. transport system, and issues such as weather, age, and health. In the policy arena, these low participation rates are seen as a reaction to the lack of accommodation for walking and biking."

While there is much anecdotal discussion about the potential influence of more aggressive provisioning for NMT, Lockwood said, research about these cause-effect relationships has been inconclusive. Nevertheless, there is a widening consensus that areas with strong support and accommodation for NMT have experienced qualitative improvements for NMT users, though evidence of reduced auto dependence or other direct socioeconomic benefits from non-motorized travel is limited. In addition, the precise role of infrastructure and non-infrastructure approaches in promoting increased NMT is not understood well, much less demonstrated. "I do think we are on the verge of new research that may shed light on these areas," he reported.

These uncertainties notwithstanding, Lockwood acknowledged that the minimum negative consequences, modest costs, benefits to those who do take advantage of facilities, and popular support are combining for increased momentum toward at least a modest level of investment in NMT facilities compared with the past. "On these grounds alone, it appears that NMT is evolving toward a more integrated role in both transportation and community planning."

A range of new federal, state, and local programs have given way to a robust array of community planning initiatives, standards development, and a more serious professional focus on the values, costs and benefits, and appropriate roles of walking and biking in society. "Given the strong interest and availability of federal and state resources," Lockwood concluded, "it is important to pursue resolution of these issues in the form of research, case studies, and pilot programs that can begin to support a systematic approach to determining NMT's appropriate role as a public policy issue and within the transportation arena. This forum is a key milestone in advancing that dialogue."

Steve Lockwood's white paper, *New Perspectives on Non-Motorized Transportation*, is online at www.cts.umn.edu/oberstarforum.



U Researchers Explore Walking and Biking Options

Two University researchers shared findings from their recent Twin Cities biking and walking studies during presentations moderated by CTS associate director Laurie McGinnis. Humphrey Institute of Public Affairs assistant professor Kevin Krizek discussed bicycling in terms of such factors as the built environment, personal preferences, lifestyles, and attitudes. University professor Ann Forsyth, director of the Metropolitan Design Center, discussed “walkable” environments and offered ideas for enticing people to walk more.

To start, Krizek agreed with Lockwood’s assessment that the research about bicycling is spotty, and the related literature is, indeed, fraught with advocacy. In essence, Krizek said, we don’t know a lot about bicycling. “It’s easy to come up with statistics around things that are easily measured,” he continued. “We can count people on bikes. We know the racial composition of who’s biking. The trouble is that many of the benefits of biking are often ‘warm and fuzzy’—factors that are hard to measure.” As researchers search for the evidence to bolster NMT policies, they become disheartened when they do not come up with the findings they want, he explained. “We need to figure out how to find the evidence around these warm, fuzzy things.”

Despite the challenges surrounding NMT research, studies have uncovered interesting—and sometimes surprising—trends. For instance, Krizek’s recent study revealed a discrepancy between those populations researchers assumed would be bicycling and those actually bicycling. “We would like to see more lower-income, elderly, and younger people biking—the populations that could benefit more from this mode of transportation. But these are not the people cycling,” he said. Instead, higher-income, educated white males do most of the cycling in the Twin Cities area.

“We know there are many reasons people do not cycle,” Krizek added. “The built environment is just one reason.” To get more people to commute by bike, there are three factors he believes must be overcome: initial considerations, such as time, family responsibility, and work requirements; trip barriers, such as weather, geography, and facilities; and destination barriers, such as bike storage, showers, and employer support. “The bottom line in increasing biking for utilitarian purposes,”

Krizek concluded, “is that personal preferences, lifestyles, and attitudes trump all else.”

Next, Forsyth explained that walking is becoming an area of great research interest for a variety of reasons, including the possible link to curbing a growing obesity problem around the world and promoting the increasingly popular trend of “active living.”

Until recently, the belief among urban designers was that environmental change—building sidewalks, for example—could be used to slow down the obesity epidemic. “We were sure that if we built it, they would walk,” Forsyth said. This thought may have grown out of an early study, which found that exercise did not vary much by environment, but weight did. This data looked only at activity for exercise and leisure, she continued, so investigators hypothesized that it was non-leisure activity that made the difference. Eventually, experts realized the focus should be on the over all physical activity in one’s daily life.

Forsyth added that researchers are finding many more factors besides the environment that motivate people to walk and increase their overall physical activity. Current data indicates that while people in the suburbs walk more for leisure and people in high-density urban areas walk more for utilitarian reasons, the body-mass index of these groups is the same.

“Building a sidewalk is not a quick fix to solving the obesity problem or increasing people’s activity levels,” Forsyth stressed. “Of course there are good things about ‘walkable’ environments. My own life is better because I walk as a means of travel. But better solutions [for enticing people to walk more] revolve around policy changes that make driving more unattractive, including things like increased fuel taxes and parking fees.”



Kevin Krizek



Ann Forsyth



Conversations Light the Way for Non-Motorized Transportation

Recent provisions for non-motorized transportation (NMT) in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) present both exciting new opportunities and perplexing challenges for better integrating NMT into the nation's overall transportation system.

Sparked by this dichotomy, forum attendees explored core issues related to non-motorized transportation during a morning of facilitated conversation. CTS associate director Cheri Marti focused the discussion on the benefits of investing in non-motorized transportation, the challenges for making non-motorized transportation a higher priority in planning and development, and the short- and long-term implications for public policy and programs. CTS director Robert Johns moderated the session.

During the conversation, many participants agreed that one of the primary benefits of non-motorized transportation is an enhanced quality of life. "Some people say the bike will not transform the world," said Steve Clark, program manager with Transit for Livable Communities in St. Paul, Minnesota. "But I know it has transformed me, and it can make us all healthier and more productive."

"If people have access to trails or walkable streets, they get out and walk more," added Richard Thomas, director of government relations with Ames Construction. "I now live in a walkable community, and I've met more people in a year than I did living 10 years in my last community. I get out and walk just to see people."

Steve Elkins, Bloomington, Minnesota, city council member, noted a stronger sense of community in areas of the United States where the environment is conducive to walking and gathering. "In these places," he said, "I see

both planned and spontaneous interaction of neighbors."

Adding to that, Berthold Tillmann, mayor of Münster, Germany, explained that he walks to work daily. "I could walk [to my office] in 15 minutes, but I don't. I take the long route. It's a kind of social connection. Walking and biking is about community—I meet people, and I can talk to them. When I am in my car, I am more or less isolated. There are some other breathtaking senses I have gained from walking that make driving much more unattractive."

Moreover, Bob Works, with the Minnesota Department of Transportation Office of Transit, observed that people are hungry for a way to make a contribution. "When we bike, walk, or ride the bus, we are no longer part of the congestion problem," he said, "we are part of the solution."

Robert Shotwell, member of the Richfield, Minnesota, transportation commission, pointed out that for the most part, the United States is nearly at the end of the freeway life-cycle. "We still have to build some freeways," he said, "but more importantly, we now need to retrofit biking and walking paths back into the system. We may have to meld walking and biking with mass transit."

Connie Kozlak, manager of transportation systems planning for the Twin Cities' Metropolitan Council, added that mass transit systems benefit from the development of NMT. "We've done a lot in this region to link walking, biking, and mass transit," she said. "Our new light rail accommodates bikes, there are bike lockers at rail stations, and our metro buses have bike racks. All of this extends the distance of the transit market. While people may want to walk only a few blocks to a bus or rail stop, they may be willing to ride their bikes a few miles."

Though Marcia Marcoux, member of the Rochester, Minnesota, city council and the National League of Cities board of directors, agreed that investing in non-motorized transportation is important from a public health standpoint, she felt that using this point as a "sales pitch to the public" may not work because the benefits will not be immediately apparent. "It's an easier sell when benefits are seen right away," she said.

University of Minnesota civil engineering associate professor David Levinson cited another reason many people are not walking or

"We need to connect people and places with sidewalks, bike lanes, off-road trails, and with transit, and give people the option of mobility without the automobile."

—Keith Laughlin



biking. “Some people,” he said, “have complex lives and need to get far distances, say from a job site to a daycare provider. These complexities create barriers to biking and walking that we need to think about.”

University of Minnesota Humphrey Institute of Public Affairs assistant professor Carissa Schively suggested one way to address these challenges is through a comprehensive planning process. “It’s not just about getting things in the plan,” she said, “but assisting communities and showing them what tools are available to help them accomplish short-term and long-term goals.”

Larry Blackstad, Hennepin County, Minnesota, administrative manager, agreed and added that coordination in the planning process is also important. “It doesn’t make much sense to build trails if they don’t connect,” he said.

Not surprisingly, several participants brought up the issue of scarce resources as a barrier to advancing non-motorized transportation. Mary Hill Smith, Metropolitan Council district three member, explained that officials, already challenged to find dollars for transportation in general, find it especially difficult to justify dollars for trails and paths used by less than 5 percent of the population.

Adding to that, retired Minnesota state senator Carol Flynn noted two recent, high-profile murders in Minneapolis focused discussion on the challenge of paying for bike trails when there is a need to pay for more police officers.

University applied economics associate professor Jerry Fruin offered that perhaps the best way to move non-motorized transportation higher up the priority list is to “increase fuel taxes and parking fees, and let economics take its course.”

Keith Laughlin, president of the Rails-to-Trails Conservancy, agreed with other participants that partnerships will play an important role in overcoming many of the challenges. “Looking at biking and walking only is too narrow,” he said. “We need to connect people and places with sidewalks, bike lanes, off-road trails, and with transit, and give people the option of mobility without the automobile.”

In the spirit of partnership, Mary Vogel, University of Minnesota landscape architecture senior research fellow, suggested looking at pressure points in local communities to see how biking and walking can be linked to solve some of a community’s challenges.

Minneapolis city council vice president Robert Lilligren offered personal experience to illustrate the value of other modes. “Someone convinced me that if I didn’t own a car between the ages of

20 and 30 and saved all I would have spent on car expenses, I would find a level of financial independence early,” he explained. “I believed them, I did it, and it worked. I think this concept is something that could be incorporated into government programs that address specific populations who don’t have cars.”

Curt Johnson, president of The Citistates Group, observed that one of the driving forces affecting public policy and culture in this country has been the generation of baby boomers. “It seems to me,” he said, “there will be more access and more opportunities and better facilities for biking and walking everywhere once the boomers decide this is in their long-range future.”

But, according to Fred Corrigan, executive director of the Aggregate and Ready Mix Association, “it will be tough to get this generation to move in that direction. I have a great hope for our children—the next generation. Maybe the boomers will come around in the end, but my biggest hope is for the next generation.”

While most participants also agreed that change of any kind often takes time, Lee Munnich, senior fellow and director of the State and Local Policy Program at the Humphrey Institute, reminded participants to think back 10 years ago to where the Twin Cities was with regard to transit, light rail, congestion pricing, toll lanes, and similar projects. “All of these initiatives took a lot of time and work, but they happened,” he said. “It really comes down to local leadership, along with entrepreneurship and innovative ideas, to make these sorts of projects a reality.”

Finally, Ann Canby, president of the Surface Transportation Policy Project, pointed out the passion that people in the biking and walking world bring to the dialogue. “If we want a more complete transportation system,” she concluded, “we all need to have that passion.”



“It really comes down to local leadership, along with entrepreneurship and innovative ideas, to make these sorts of projects a reality.”

—Lee Munnich



Oberstar Summons Pedestrians and Cyclists To Be ‘Agents of Change’



“Imagine a future in which most Americans live within a sensibly designed, seamless network of sidewalks, trails, on-the-road bicycle facilities, transit, and rail that provides access to the majority of day-to-day destinations.”

—Rep. Oberstar

Hoping to mitigate numerous societal problems by changing the habits of an entire generation, Rep. Oberstar issued a challenge during his public forum speech to make this the bicycling century. “American cities are experiencing tremendous growth and face enormous challenges,” he said. “The greatest of these challenges is livability: today’s transportation congestion is making cities unbearable, if not unlivable.

“Imagine a future,” Oberstar mused, “in which most Americans live within a sensibly designed, seamless network of sidewalks, trails, on-the-road bicycle facilities, transit, and rail that provides access to the majority of day-to-day destinations.”

For most of the past 50 years, he continued, planning and policy decisions about surface transportation took place within a framework in which the motor vehicle roadway was central. Pedestrians and bicyclists were often viewed as afterthoughts. In 1991, this way of thinking began to change when Congress passed landmark transportation legislation, the Intermodal Surface Transportation Efficiency Act (ISTEA). ISTEA established non-motorized transportation as an integral part of a balanced, intermodal system by providing new and dedicated sources of funding for bike and pedestrian facilities. Then, in 1998, Congress passed the Transportation Equity Act for the 21st Century (TEA-21), continuing the integration of bicycling and walking into the transportation mainstream.

Last year, Congress passed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The legislation reaffirms the federal government’s commitment to make America a safer, healthier, more mobile nation by reauthorizing—at higher funding levels—programs that fund bicycle/pedestrian efforts and authorizes new programs, particularly the Safe Routes to School Program and the Non-Motorized Transportation Pilot Program.

Under SAFETEA-LU, bicycle and pedestrian projects are eligible for funding from most of the major federal-aid highway, transit, and transportation safety programs, including the Congestion Mitigation Air Quality Program (CMAQ), the Surface Transportation Program (STP), the National Highway System (NHS), and the Recreational Trails Program.

Oberstar detailed several ways to contribute to the national transportation goals of safety, mobility, economic growth and trade, healthy and active lifestyles, and enhancement of communities and the natural environment. His list included constructing sidewalks, installing bicycle parking at transit facilities, providing the means for safe and efficient transportation as well as teaching children to ride and walk safely at an early age, installing curb cuts and ramps for wheelchairs, striping bike lanes, and building lanes and trails. “All of these activities, and many more, are eligible for funding under SAFETEA-LU, and enable communities to encourage more people to walk and bicycle safely,” he said.

Clearly, a wide array of possible funding is available from federal programs, Oberstar explained. But eligibility does not guarantee that bicycle and pedestrian projects, plans, and programs will be funded. “States and local communities,” he said, “must ensure that the availability of federal money translates into funding for programs that prioritize bicycle and pedestrian projects.”

Oberstar pointed out that much can be done in the short term to make walking and cycling safer and more attractive. “Public policymakers must not only provide the necessary funding for better bicycling and pedestrian facilities,” he said, “but also adopt and implement a range of policies to encourage more compact, mixed-use development that permits and encourages walking and bicycling as a part of our daily life.”

Although not every U.S. city will be a “Münster,” there is much for all of us to learn from that city, he added. “Many communities are beginning to understand this new paradigm, and already we are seeing a shift in attitudes. The four pilot communities will provide the strong leadership for continued change as they show other cities how enhanced non-motorized facilities improve the overall quality and livability of their communities.”

“Together, we must unravel past inadequacies and policy misjudgments to plan and implement change,” he urged. “The goal of this forum is not to document the dreary statistics on biking and walking, but rather to inspire us to become agents of change.”

Congressman Oberstar’s condensed forum remarks follow on the next page.



A Vision for Non-Motorized Transportation

Excerpted Remarks by James L. Oberstar

Imagine communities all across the United States where greater transportation safety and efficiency is achieved every day. Imagine easing traffic congestion, saving energy, reducing air and noise pollution, conserving land, and other environmental benefits. Imagine an active, healthy nation of school children and families.

This choice—this lifestyle—is possible. At stake is our quality of life, for urban, suburban, and rural centers alike. The goal must be the development of livable cities. Fortunately, there are resources available to plan and invest our way out of these challenges. We must unravel past inadequacies and policy misjudgments to plan and implement change.

Surface Transportation Legislation

For most of the past 50 years, planning and policy decisions regarding surface transportation took place within a framework in which the motor vehicle roadway was central. Pedestrians and bicyclists were often viewed as afterthoughts.

In 1991, this way of thinking began to change when Congress passed landmark transportation legislation. In July 2005, Congress passed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU reaffirms the federal government's commitment to make America a safer, healthier, more mobile nation by reauthorizing—at higher funding levels—programs that fund bicycle/pedestrian efforts and authorizes new programs, particularly the Safe Routes to School Program and the Non-Motorized Transportation Pilot Program.

However, eligibility does not guarantee that bicycle and pedestrian projects, plans, and programs will be funded. We must continue to make the case to states and local communities that incorporating non-motorized transportation systems into overall plans is beneficial for many reasons.

Beyond Recreational Biking

To induce change, we must understand why bicycling is not used more extensively as a mode of transportation in the United States. In many surveys, lack of facilities, trip distance, and safety concerns are cited as the main reasons. The bottom line is that the United States makes driving a car almost irresistible, even a physical necessity, compared to walking and cycling.

Clearly, the biggest impediments to more walking and cycling are the appallingly unsafe, unpleasant, and inconvenient conditions faced by pedestrians and bicyclists in most American cities. With growing concern over traffic congestion, pollution, and public health, however, it makes sense to promote bicycling as an alternative for commuting and other utilitarian purposes. Data clearly shows that higher levels of

bicycle infrastructure are positively and significantly correlated with higher rates of bicycle commuting.

In addition, the United States is gripped by a worsening epidemic of obesity. Studies show that lack of physical activity is one important reason for this alarming trend. But medical and public health journals have advocated in favor of more walking and cycling for daily travel as the most affordable, feasible, and dependable way for people to get the additional exercise they need.

United States Compared With Europe

Dramatically higher levels of walking and cycling for daily travel certainly contribute to better public health in such countries as the Netherlands, Denmark, Germany, and Sweden. Moreover, the average healthy life expectancies in those four European countries are 2.5 to 4.4 years longer than in the United States, although their per capita health expenditures are only one-half those of the United States.

We can learn valuable lessons from these nations. In some communities in Germany and the Netherlands, bicycling now captures as much as 30 or 40 percent of the transportation mode share. Communities in Germany and the Netherlands have developed and implemented thoughtful transportation plans that will undoubtedly bring lasting individual and societal benefits.

Next Steps

Renowned architect and urban designer Jan Gehl once observed that “architecture and planning should fit man and man should not try to fit planning and architecture.” The same analogy can be made for pedestrians and bicyclists: transportation planning should fit pedestrians and bicyclists, and pedestrians and bicyclists should not have to fit transportation planning.

Many communities are beginning to understand this new paradigm. Much more could be done in the short term here in the United States to improve walking and cycling conditions to make them both safer and more attractive.

SAFETEA-LU provides the necessary structure and resources to ensure bicycling and walking garner a more prominent role in our nation's transportation system. Non-motorized opportunities do not exist separately from other transportation options. They are integral to an overall mobility system.

Condensed from remarks by Rep. James L. Oberstar on April 10, 2006. The complete text of Rep. Oberstar's speech is online at www.cts.umn.edu/oberstarforum.



Mayor of Münster Touts Bicycling Paradise



Berthold Tillmann

Keynote speaker Berthold Tillmann, mayor of Münster, Germany, introduced audience members to this city located in northwestern Germany. Münster, which has approximately 1.5 million residents and nearly as many bicycles, is considered the bicycle capital of Germany. Bicyclists account for roughly 35 percent of daily transportation in the city, which is ideal for biking, with a flat landscape and only 15 miles from one end to the other. But, as Tillmann demonstrated, it is more than just the natural environment that makes it easy to bike in his city. Münster efficiently mobilizes approximately 300,000 people each day and boasts of many bike-friendly features, including separate bicycle traffic signals, bicycle- and pedestrian-only promenades, and ordinances requiring the inclusion of bike parking facilities.

Centuries of transportation-oriented development

Münster's spatial development has corresponded with available means of transportation throughout the city's 1,200-year history. Even before the beginning of modernization in the 20th century, the bicycle was the most common form of transportation in Münster—as it was in many other German cities. After World War II, which destroyed nearly 90 percent of Münster, city leaders passed a revolutionary requirement for separate bike routes to be built on all main thoroughfares so that the multitude of bicyclists would no longer disturb the growing automobile traffic.

During the 1970s, the mobility issue was rekindled during discussions concerning preservation of Münster's city life and environment. As a result, significant additional efforts promoted the use of bicycles in the city. Tillmann noted these efforts have been resoundingly successful, with daily motor vehicle and bicycle traffic now nearly equal.

According to Tillmann, the city motivates its citizens

to get on their bicycles as often as possible by ensuring that bicyclists can travel safely, conveniently, quickly, and systematically. But just as natural as it is for automobiles to have parking spaces, sign postings, and repair shops in addition to roads, he said, corresponding service facilities need to be made for bicycle transportation. “We have tried new things to make bicycling more pleasant,” Tillmann added. “Many of these innovations have been integrated into technical regulations and laws throughout Germany. In our efforts, we focused on infrastructure, traffic safety, and public relations.”

An infrastructure that accommodates bicycles

Münster's infrastructure includes a system of major bicycle traffic access in all directions. “We have declared the streets in residential areas, where a maximum speed of just under 20 mph strictly applies, to be bicycle streets,” Tillmann explained. “These bicycle streets belong to bicyclists, where motor vehicle traffic is secondary.”

Traffic safety in Münster is also a priority, but Tillmann noted that the risk of accidents for bicycles is comparatively low. In 2005, out of 370,000 bike trips daily, only 848 accidents were registered for the entire year, with a third of all accidents caused by the cyclists themselves. “Our traffic safety work primarily emphasizes information and education,” he reported. “Automobile driving school candidates have special training [on how to share the

roads with bicyclists]. Children in the second and third grades receive traffic lessons on how to act properly when on the road [with both vehicles and bikes].”

Of course, enforcement efforts enhance the safety information and education. “The Münster police department has organized a special group that travels around the area on mountain bikes, making contact with cyclists,” Tillmann said.



Photos courtesy of the City of Münster, Germany.

“Everybody rides a bike in Münster, but we don't ride our bikes because of convenience, but rather out of conviction.”

—Berthold Tillmann



“We’ve also employed other safety measures, such as a billboard campaign to remind cyclists to keep their lights in working order.”

Tillmann described a variety of initiatives aimed at promoting bicycle transportation, including press releases, brochures, and event posters. Every two years, all citizens are invited to “bike action” day, which features information, music, and a variety of activities, including skill-building competitions. “We also have a virtual bike tour on our Web site that highlights Münster’s bike transportation facilities,” he added.

Bicycling offers substantial benefits

While the infrastructure, traffic safety, and public relations provide individual bicyclists with the tangible results of systematic bicycle transportation planning, the city has realized a variety of financial advantages as well. “With such a large part of inner-city transportation conducted with bicycles, fewer roads need maintenance and there’s no need to build new roads,” Tillmann pointed out. “So our commitment to the bicyclist is saving the city money.”

In addition, the city has one bicycle shop for every 7,000 residents. “That means Münster is not only the leading city of bicyclists, but also the leading city of commerce and services associated with bikes,” he explained. “We even have a mobile repair service that comes to customers in a car packed with replacement parts to get a broken-down bike back on the road.”

In a larger context, Münster and its surrounding region are some of the most popular destinations for bike tourism. Approximately 1 million overnight stays per year can be attributed to bike tourists in the region, not including 12 million day-trippers using the area’s bike transportation infrastructure. With 4,500 rental bikes available, 715 of which are in Münster, the region’s hotels and restaurants have adapted to the special needs of bicyclists. Tillmann directly and indirectly attributed more than \$300 million in annual profits and 6,000 jobs to bike tourism.

Tillmann also touched on the obvious positive influence biking has on the body, mind, and soul. For instance, regular biking exercises the cardiovascular system, lowers high blood pressure, and strengthens the immune system. “Even the young can benefit from bicycling, which trains the sense of balance, improves the ability to concentrate, and promotes the



sense of orientation,” he said. “Children who ride bikes regularly are seldom overweight and relieve their parents from having to drive them around so much.”

A conviction for biking

According to Tillmann, Münster’s city planners have long recognized that, without long-term, systematic, and sustained urban planning, without respect for a city grown out of history, and without a commitment from citizens for whom a healthy environment is part of the quality of life, Münster would not be the outstanding city of bicycles it is today. There’s no question, he continued, that bicycle transportation is the most economical form of transportation in the inner city and that it greatly frees up room for necessary motor vehicle traffic. “It’s inconceivable what it would be like if even half of the bicyclists in Münster came into town by car,” Tillmann concluded. “Everybody rides a bike in Münster, but we don’t ride our bikes because of convenience, but rather out of conviction. This is a large part of why Münster is such a livable community and a nice place to call home.”



Pilot Communities Preview Non-Motorized Mobility Options



Lea Schuster



Darwin Hindman



Shannon Haydin



Steve Kinsey

Representatives from the four communities participating in a non-motorized transportation (NMT) pilot program were on hand to discuss key elements of their respective programs. The four-year pilot study is part of the SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users) transportation funding legislation passed by Congress in July 2005. This provision enables the pilot communities to develop plans and programs to demonstrate the effectiveness and significance of NMT in the nation's multimodal transportation system. Program outcomes are expected to give researchers and policymakers a better look at systematic, before-and-after data to clear up some of the fuzziness of current related research and to provide important guidelines for next steps.

Lea Schuster, executive director of Transit for Livable Communities (TLC) in St. Paul, Minnesota, explained that the Twin Cities area has a history of significant investment in biking, though supporting pedestrians needs more work. She said a key challenge for the Twin Cities' program is determining the best way to show results for such a large geographical area over a short time.

"We want to target those places connected to transit stops and schools, and work to increase biking and walking mode share in these places," Schuster added. To do this, TLC hopes to work in partnership with area communities and other organizations, businesses, and neighborhoods to increase public involvement. "We will also identify the policy changes required to help keep the program sustainable after the four test years," she said.

Darwin Hindman, mayor of Columbia, Missouri, said that the city will "beef up" some of its past and current initiatives to make biking and walking accessible and get citizens interested. He described the city's Cycle Recycle program involving prison inmates refurbishing bikes for free distribution to lower income, minority, and immigrant populations.

Other Columbia pilot program efforts involve a newly appointed, 35-member advisory

"We want to target those places connected to transit stops and schools, and work to increase biking and walking mode share in these places."

—Lea Schuster

committee made up of developers, lawyers, doctors, university employees, bike advocates, and others meeting every other month and an executive subcommittee meeting every two

weeks. The city is also hiring a full-time project manager and a consultant to shepherd the project. "In the end," Hindman said, "we hope to become the 'Münster of Missouri.'"

Shannon Haydin, planning director for Sheboygan County, Wisconsin, pointed out that the economy of the area, once heavily industrialized, is shifting to tourism. "We cannot accommodate all the people who may want to visit our area by car.

Through the pilot program, we will focus on ways tourists can take advantage of our amenities by walking or biking," she said.

In addition, Haydin hopes the program will help change overall community attitudes toward biking and walking, which she says tend to minimize the importance of NMT. "We want to show the public and elected officials that having biking and walking facilities is not a want—it is a need," she said, "especially for citizens who do not have access to cars or other transportation systems."

Finally, Steve Kinsey, a supervisor on the Marin County, California, board of supervisors, described the significant influence of the area's hilly topography on its development patterns. He went on to detail efforts to reuse old railroad lines and tunnels to develop walking and biking facilities.

Kinsey also noted that for the past 15 years, Marin County has been committed to pedestrians and bicyclists. "We have adopted bike and pedestrian master plans that will be the nucleus of ideas for our pilot program," he continued. "We will build on past successes, focusing investments on existing programs as well as infrastructure improvements that increase mode share, including access to transit to facilitate people who want to bike. We also intend to leverage these [pilot program] dollars with other funds to make them go further."



Research Opportunities Offer a Road Map for Sustainability

As a follow-up to the panel about communities in the pilot project, participants heard from Humphrey Institute of Public Affairs assistant professor Kevin Krizek and Metropolitan Design Center professor and director Ann Forsyth, along with Billy Fields, director of research with the Rails-to-Trails Conservancy, about the research implications for non-motorized transportation (NMT) and needs relating to the four pilot programs.

Fields recognized the “enthusiasm and excitement” of what the pilot communities will do to create a foundation for studying NMT, but reminded the audience the importance of looking at this project over time and in context. “Remember, we’ve spent 50 years investing in the motorized landscape, so it will take some time to see the real changes,” he said. “From a research perspective first, we need to keep in mind we are capturing a snapshot in time—a moment in the beginning of the process.”

Fields also pointed out that the overarching research challenge of the pilot study is scale. “One of the goals of the program is to increase non-motorized transportation use,” he said. “To do this, we can’t just look at the broad picture from above. We have to zoom in to micro areas in order to see the changes.”

Another difficulty with the pilot project, he added, is its short time frame. “In the next four years, we have to build the facilities, show the results, and report them to Congress.”

Next, Forsyth stressed the importance of incorporating walking into the pilot evaluations, explaining that transportation planners typically have focused mostly on machines—cars, transit, and sometimes bikes—but rarely have they looked at walking other than as a means to get to transit. “Walking happens for a lot of purposes, rather like biking,” she said. “Many people walk primarily for recreational purposes, and there are others who walk for transportation. Very often we measure only one or the other.”

Forsyth noted, too, that a common assumption among communities is that biking environments are also good for walking. “That isn’t necessarily the case,” she said, citing a study that showed as biking increased in Münster, walking decreased by about 10 percent over the study period. “Clearly [Münster] is doing

something completely right for bikes, but maybe not for walking, which really shows the importance of putting walking on the [transportation planning] agenda.”

Similarly, many people think that building a good cycling environment leads to increased levels of cycling. But Krizek acknowledged that researchers are slowly learning there may be other determinants for cycling, including people’s natural preferences, attitudes, or lifestyles—regardless of what the cycling environment offers. He’s hoping the pilot programs help unravel the web of research uncertainty and generate more concrete evidence. “We can measure a point in time, have an intervention, then measure a point in time four or five years later and see that it was a particular intervention that caused something to change,” Krizek said.

Forsyth added that evaluating a project depends on the indicators for success, noting that it’s easy to count people on the trail, for example, but it may not be easy to tell if they’re new trail users, trail users deflected from other trails, or recreational trail users who’ve changed to a utilitarian use. “I’m sure the pilot programs will do a lot of good,” she concluded, “but figuring out how they are doing it will involve a complicated evaluation process that needs to look at the multiple purposes for non-motorized transportation.”

Krizek ended by suggesting more people need to see what’s going on with non-motorized transportation in Europe, and then spread those ideas at home. Oberstar agreed, proposing that the leaders of the pilot programs travel to Münster and to other European cities for inspiration to do the same things in their own communities. “What we are dealing with,” Krizek explained, “is a change of culture.”



Billy Fields



Kevin Krizek and Ann Forsyth



James L. Oberstar Forum on Transportation Policy and Technology

April 9-10, 2006

Attendees of Invitation-Only Discussions

National and Minnesota Leaders

Darryl Anderson, *Minnesota Department of Transportation*
Lisa Austin, *Twin Cities Bicycle Club*
Larry Blackstad, *Hennepin County*
Stephan Bohme, *City of Münster, Germany*
Richard Braun
Anne Canby, *Surface Transportation Policy Project*
Steve Clark, *Transit for Livable Communities*
Fred Corrigan, *Aggregate and Ready Mix Association*
Douglas Differt, *Minnesota Department of Transportation*
Steve Elkins, *City of Bloomington, Minnesota*
Jim Erkel, *Minnesota Center for Environmental Advocacy*
Billy Fields, *Rails-to-Trails Conservancy*
Marianne Fowler, *Rails-to-Trails Conservancy*
Carol Flynn
David Gephner, *Metropolitan Council*
Randy Halvorson, *Minnesota Department of Transportation*
Richard Harnish, *Midwest High Speed Rail Coalition*
Shannon Haydin, *Sheboygan County, Wisconsin*
Mary Hill Smith, *Metropolitan Council*
Darwin Hindman, *City of Columbia, Missouri*
Michael Huber, *State Bicycle Advisory Committee*
Curtis Johnson, *Citistates Group*
Steve Kinsey, *Marin County, California*
Connie Kozlak, *Metropolitan Council*
Colleen Landkamer, *Blue Earth County, Minnesota*
Keith Laughlin, *Rails-to-Trails Conservancy*
Robert Lilligren, *City of Minneapolis, Minnesota*
Stephen Lockwood, *Parsons Brinkerhoff*
Marcia Marcoux, *National League of Cities*
Arlene McCarthy, *Metropolitan Council*
Peter McLaughlin, *Hennepin County, Minnesota*
Janet Oakley, *American Association of State Highway and Transportation Officials*
James Oberstar, *U.S. House of Representatives*
Bill Richard, *Office of U.S. Rep. James Oberstar*
Lea Schuster, *Transit for Livable Communities*
Marisol Simon, *Federal Transit Administration*
Gary Sjoquist, *Bikes Belong Coalition*
Robert Skinner Jr., *Transportation Research Board*

Tom Sorel, *Federal Highway Administration*
James Sorensen, *Two Wheels to Town*
Jeri Sparling, *Office of U.S. Rep. James Oberstar*
Richard Stewart, *University of Wisconsin—Superior*
Richard Thomas, *Ames Construction*
Berthold Tillmann, *City of Münster, Germany*
Jon Wertjes, *Minneapolis Public Works Department*
Bob Works, *Minnesota Department of Transportation*

University of Minnesota Attendees

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Max Donath, *ITS Institute*
Ahmed El-Geneidy, *Civil Engineering*
Ann Forsyth, *Metropolitan Design Center*
Jerry Fruin, *Applied Economics*
Robert Johns, *Center for Transportation Studies*
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