Interim Report to the U.S. Congress on the Nonmotorized Transportation Pilot Program SAFETEA-LU Section 1807

Submitted by the Federal Highway Administration
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Overview

This interim report to Congress summarizes the progress and initial results of the Federal Highway Administration's (FHWA) and the four pilot communities' participation in the Nonmotorized Transportation Pilot Program (NTPP) from its inception through May 2007. Section 1807 of the Safe, Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), P.L. 109-59, established the NTPP in August 2005. Over the span of 4 years, the legislation provides $25 million in contract authority for each of the NTPP's four pilot communities (Columbia, Missouri; Marin County, California; Minneapolis, Minnesota; and Sheboygan County, Wisconsin) "to construct … a network of nonmotorized transportation infrastructure facilities, including sidewalks, bicycle lanes, and pedestrian and bicycle trails, that connect directly with transit stations, schools, residences, businesses, recreation areas, and other community activity centers."

The purpose of the NTPP as stated in Section 1807 is "to demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load, and represent a major portion of the transportation solution, within selected communities." The legislation also calls for the Secretary of Transportation to "develop statistical information on changes in motor vehicle, nonmotorized transportation, and public transportation usage in communities participating in the program and assess how such changes decrease congestion and energy usage, increase the frequency of bicycling and walking, and promote better health and a cleaner environment." Finally, the legislation calls for two reports to be submitted to Congress: an interim report by September 30, 2007, and a final report by September 30, 2010. This document is the Interim Report.

To respond to this requirement, FHWA and the pilot communities created a Working Group composed of representatives from the implementing agencies in each of the communities, FHWA, the U.S. Department of Transportation's (DOT) Volpe National Transportation Systems Center, the Rails-to-Trails Conservancy (RTC), the Marin County Bicycle Coalition, and the Centers for Disease Control and Prevention. The Working Group holds biweekly teleconferences and annual face-to-face meetings to discuss progress and challenges and coordinate efforts across the pilot communities. The Working Group also created an Evaluation Subgroup to address data collection and analysis issues.

Working Group members from each community provide technical support, manage NTPP funds, and guide implementation of projects in each pilot. Within each community, staff members and advisory groups have been working together to update planning documents, develop and apply project selection criteria, and build a framework for carrying out infrastructure and non-infrastructure projects.

The Working Group has developed a program evaluation plan to outline the steps necessary to fulfill the requirements of the legislation. The evaluation plan lays out four phases of work to respond to the requirements of the legislation:

- *Phase 1* – Develop a baseline community-wide travel behavior survey and execute it in each community prior to project implementation. The pilot communities selected the

University of Minnesota as the research team to conduct this work, and selected Spokane, Washington as the control community. The survey was executed in fall 2006, the related analysis was completed in March 2007, and the results are summarized in this report.

Table 0.1 shows the mode split for each mode in each community. Non-auto mode share (that is, the use of modes other than automobile, including walking, bicycling, and transit) ranges from 8.5% in Sheboygan County to 29.3% in Minneapolis. The research team estimates that current levels of nonmotorized transportation in all four communities reduce vehicle-miles traveled by approximately 156.1 million miles over the course of an entire year.[1]

Table 0.1: Share of Total Person Trips by Mode

Community	Vehicle %	Rideshare %	Walk %	Bicycle %	Transit %
Columbia	86	2.2	8.6	1.5	2.2
Marin	82	1.4	11.8	1.8	3.2
Minneapolis	69	2.2	17.6	2.0	9.7
Sheboygan	89	2.4	6.6	0.7	1.2
Avg. for Pilots[2]	82	2.1	11.2	1.5	4.1
Spokane	85	2.0	8.5	0.8	4.1

- *Phase 2* – Collect "before" and "after" data for at least five specific projects within each community. The goals are to collect information on the infrastructure projects and educational programs the four communities will undertake and to conduct a detailed analysis of a limited number of significant and innovative projects to identify increases in bicycling and walking, along with related safety, environmental, and health benefits. This work is underway based on a common framework developed by the FHWA and the Volpe Center, with input from the Working Group, to guide data collection in each community.
- *Phase 3* – Apply the same community-wide travel behavior survey implemented in Phase 1. The University of Minnesota will perform this work in fall 2010 to capture travel changes after projects are implemented.
- *Phase 4* – Synthesize and analyze the data collected and develop results. The Working Group developed this interim report and will provide the final report to Congress in 2010.

In addition to describing these phases of work, the evaluation plan identifies the following themes for pilot communities to consider when implementing projects and evaluating results to complement the topics articulated in the legislation: improving safe access; improving public health through physical activity; working with land use policy and transportation planning processes; leveraging resources; improving connections to other transportation modes as part of

[1] See later discussion on page 48 for assumptions. This total excludes trips for recreation or by children. The research team focused on utilitarian trips (trips to a destination) that replace automobile trips. Non-utilitarian trips (for recreation or exercise) were captured in a different part of the survey and are discussed in Chapter 5 of this report. Children were not surveyed because of privacy concerns. The research team assumed that adult responses provided useful information about travel by children.

[2] These values reflect the average of the numbers in the columns above for the four pilot communities.

an overall transportation system, with an emphasis on links to public transit; and raising public awareness.

In addition to describing the Working Group, the evaluation plan, and the results of Phase 1 in more detail, this report compares the characteristics of the pilot communities and the control community (Spokane, Washington[3]), describes the Communications Plan developed by the RTC to disseminate information about the NTPP, and discusses the NTPP's challenges and plans.

Ultimately FHWA wants to ensure that the best data and information are available to complete a thorough analysis and provide meaningful results to meet the purpose of the NTPP. FHWA will continue to work with the pilot communities and the Working Group to implement the NTPP and refine the evaluation plan. FHWA will report to Congress on the preliminary final results of the NTPP by the September 30, 2010 deadline, followed by a report with the final results at a later date. When submitting the 2010 report, FHWA will advise Congress of plans to collect the final "after" data, complete the final evaluation of the NTPP, and report the results to Congress.

SIGNIFICANCE OF THE NTPP

The NTPP offers the opportunity to learn more about the extent to which a suite of coordinated, integrated infrastructure projects and educational or promotional programs can yield shifts in travel behaviors and use of different modes of transportation. In particular, the NTPP is intended to assist pilot communities in identifying and funding those types of infrastructure projects and educational programs that result in significant increases in the amount of bicycling and walking, along with related safety, environmental, and health benefits.

Knowledge about successful projects and programs, as well as information on those that are not as successful, will be invaluable to other communities implementing programs designed to increase bicycling and walking and improve the safety of bicyclists and pedestrians. Any changes to the transportation systems in our Nation's communities must take into account their effects on all users of the system.

[3] Note: Spokane, Washington, was chosen as a control community when assessing the community-wide impacts of the NTPP. The use of a control site allows researchers to monitor and account for the impact of extraneous factors during the "before and after" studies in the four pilot communities. Examples of extraneous factors are changes in gasoline prices, political or policy modifications, etc. Potential control communities included four candidate cities, evaluated on how similar or dissimilar they were to pilot community characteristics such as median household income, current commuting rates, and geographic area. After discussions between the Working Group and the research team, the city of Spokane, Washington, was selected as the control community.

Chapter 1: Pilot Community Characteristics

The four communities selected for participation in this pilot program exhibit a variety of demographic, economic, and transportation related characteristics. The communities differ in population and land area, but also in their existing bicycle and pedestrian networks and their organizational capacity to implement nonmotorized projects.

This chapter provides a comparative discussion of the four pilot communities, while Chapter 2 provides snapshots of each community's plans for implementation. Information for the control community – Spokane, Washington – provides context for comparing program impacts in 2010. The figures that appear in this chapter were created using data extracted from tables in the 2000 U.S. Decennial Census.

Table 1.1 provides an overview of the four pilot communities' characteristics, including data from the U.S. Census on existing travel behavior. Note that in some cases, a special geographic area was defined before data were extracted. Please see Table 1.1 footnotes for more information.

Documenting the communities' differences provides an excellent opportunity to better understand factors that may influence changes in travel behavior between 2006 and 2010. Nonmotorized facilities can be developed as components of an integrated multi-modal transportation system serving communities with very different demographic and physical characteristics. By documenting these characteristics in the early stages of the program, it becomes possible to discern patterns and trends in behavior change.

Table 1.1: Demographic and Economic Characteristics and Travel Behavior Among Communities

	City of Columbia	Marin County	City of Minneapolis	Sheboygan County	Average Among Pilots	Spokane (Control)
Geographic Area (sq mi)	53.0	121.4[1]	55.0	514.0	185.9	58.0
Persons per sq mi	1,592.8	1920[2]	6,970.3	219.3	2,675.6	3,387.0
POPULATION						
Total	84,531	233,132[3]	382,618	112,646	203,232	195,629
% enrolled in college or grad school	26.2	5.9	11.3	4.2	11.9	7.8
EDUCATION						
Total population 25 and older	46,650	183,694	243,409	74,561	137,079	126,106
Less than high school	8.9	8.7	15.1	15.6	12.1	11.9
High school or equivalence	17.8	12.4	20.1	39.9	22.6	26.3
Some college, no degree	18.5	21.3	21.2	19.7	20.2	26.7
Associate or bachelors degree	30.8	37.0	29.9	19.7	29.4	25.9
Grad or professional degree	24.0	20.5	13.1	5.1	15.7	9.2
MEDIAN AGE	26.8	41.3	31.2	36.8	34.0	34.7
HOUSEHOLD INCOME						
Total # of households	33,819	100,736	162,382	43,595	85,113	81,762
Less than $ 25,000	20.4	14.5	31.8	22.2	22.2	37.6
$ 25,000-49,999	26.8	19.4	31.0	19.5	24.2	32.5
$ 50,000-74,999	21.7	18.1	17.9	26.2	21.0	16.7
$ 75,000-99,999	14.9	12.9	9.0	11.2	12.0	6.6
$ 100,000 or more	16.2	35.1	9.3	7.7	17.1	6.4
Median household income (2006 $)[4]	$63,273	$86,286	$45,952	$55,951	$62,865	$39,053
RACE (includes Hispanic and non-Hispanic)						
White (alone)	81.5	84.0	65.1	92.7	80.8	89.5
Black (alone)	10.9	2.9	18.0	1.1	8.2	2.1
Asian (alone)	4.3	4.5	6.1	3.3	4.6	2.2
Other race or multi-racial	3.2	8.7	10.9	3.1	6.5	5.8
Hispanic (any race)	2.1	11.1	7.6	3.3	7.8	2.7
WORK COMMUTE						
Total # of workers 16 and over	44,919	126,646	203,951	58,546	108,516	88,299
Car, truck or van – drive alone	75.2	65.5	61.6	81.0	70.8	74.1
Car, truck or van – carpool	11.7	10.7	11.3	10.2	11.0	12.9
Public (includes taxi)	1.1	10.1	14.6	0.6	6.6	4.2
Walk	7.0	3.1	6.6	3.8	5.1	3.6
Other means	2.1	1.9	2.5	1.3	2.0	1.5
Worked at home	2.9	8.8	3.4	3.0	4.5	3.6
Mean travel time (minutes)	15.3	32.3	21.7	16.9	21.6	19.5
Bike commute (MSA)	0.95		0.44	0.25		0.57
HOUSEHOLD CHARACTERISTICS						
Total # occupied units	33,689	100,652	162,352	43,545	85,060	81,512
Owner occupied	47.3	63.6	51.4	71.4	58.4	58.8
Renter occupied	52.7	36.4	48.6	28.6	41.6	41.2
Average household size	2.3	2.3	2.3	2.5	2.3	2.3
Households with own child under 18	26.1	27.5	22.6	32.3	27.1	29.4
Average number of vehicles per household (owner-occupied units)	1.9	2.0	1.6	2.0	1.9	2.0
Average number of vehicles per household (renter-occupied units)	1.5	1.4	1.0	1.2	1.3	1.2

TABLE 1.1 CONTINUES ON THE NEXT PAGE

OCTOBER CLIMATE (in Degrees Fahrenheit)	Columbia Airport	San Rafael	Int'l Airport	In city	Average Among Pilots	Int'l Airport
Average temp (max)	67.5	75.0	58.6	59.4	65.1	58.5
Average temp (min)	45.5	50.5	38.7	43.2	44.5	36.0
Inches of rain	3.1	1.7	1.9	2.5	2.3	1.2

Source for all demographic data: 2000 U.S. Decennial Census; Source for meteorological data: University of Minnesota research team.

[1] The land area represents Marin's City-Centered Corridor, the eastern urbanized portion of the County.
[2] Refers only to the population density in the City-Centered Corridor.
[3] Population in all Census tracts lying wholly or partially in the City-Centered Corridor
[4] U.S. Census 1999 dollars have been converted to 2006 dollars using the U.S. Bureau of Labor Statistics Inflation Calculator (http://www.bls.gov)

The following key community characteristics provide information that may help explain the amounts of nonmotorized travel in each community:

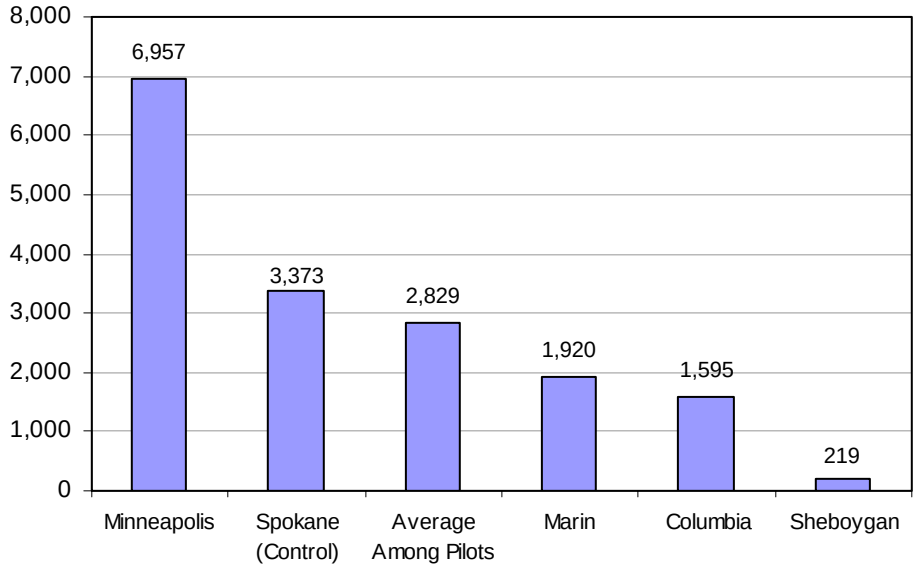
- Population Density
- Level of Education
- Household Income
- Time Spent Commuting to Work
- Travel Mode for Commute Trip

POPULATION DEMOGRAPHICS AND ECONOMIC CHARACTERISTICS

Population density is a critical factor affecting transportation planning decisions. Dense urban areas may be well suited for a transportation system designed to provide a broad range of transportation choices. Less dense regions may develop transportation networks that rely on high-volume roadways designed for maximum speed, efficiency, or access to specific nodes (like employment centers).

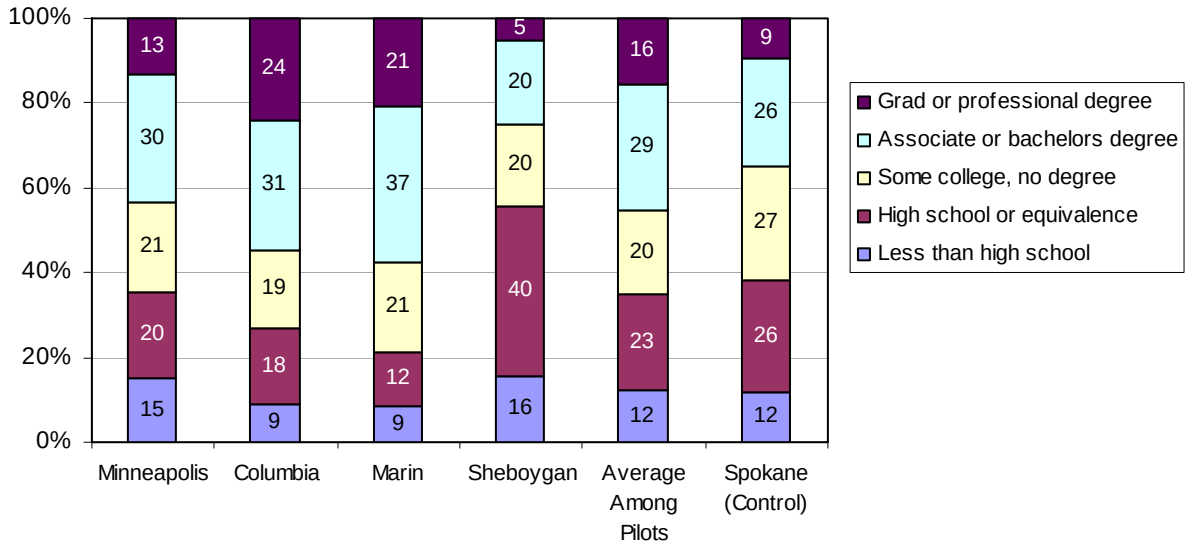
Of the four NTPP communities, Minneapolis, the eastern urbanized portion of Marin, and Columbia are densely populated (Figure 1.1); Minneapolis and Columbia include major universities. Sheboygan is sparsely populated. The control community (Spokane) has about half as many persons per square mile as Minneapolis, and about 50 percent more persons per square mile as the average among pilot communities. It should be noted that both Marin and Sheboygan have varied development patterns, with some undeveloped protected areas, dispersed corridor development, and densely built-out communities. Expectations for mode shift will differ across these varied geographies, and nonmotorized investments in each of these two pilots will center on the more developed (or densely populated) regions of their communities.

Figure 1.1: Population Density (Persons per Square Mile)



Level of education influences individuals' lifestyle choices, including their transportation choices. Data on the level of educational attainment among the population age 25 and over has been gathered for each NTPP community, and might later be correlated to mode shift and changes in transportation patterns (Figure 1.2).

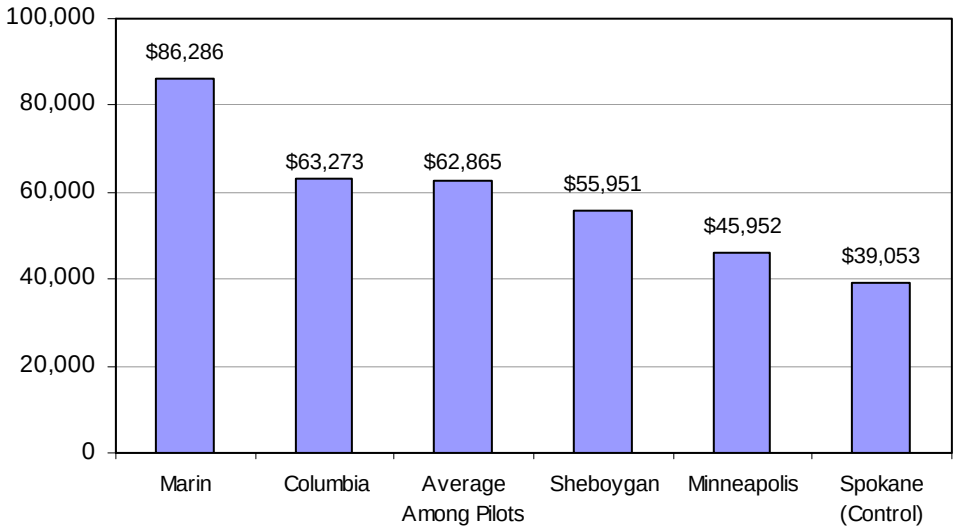
Figure 1.2: Educational Attainment for Population Age 25+



It should be noted that these data do not include the share of each community's population currently enrolled in college or graduate school. One-quarter of Columbia's population (26.2 percent) and more than one-tenth of Minneapolis' population (11.3 percent) are currently enrolled in higher education. On average, almost half of the population across all four pilot communities (45.1 percent) has obtained a higher degree. Marin and Sheboygan stand in contrast to one another: more than half of Marin residents (57.5 percent) have a college degree, while an almost identical share of Sheboygan residents (55.5 percent) attained a high school diploma (or equivalent), or less.

As with educational attainment, *household income* influences individual lifestyle choices, including transportation and mobility decisions (Figure 1.3). Households with incomes above the national median may be able to spend more on transportation costs. Households with lower median incomes may be more limited in their transportation options. In some cases, travelers may choose automobiles or transit; in other cases they may choose nonmotorized options. In all four pilot communities and in the control community, median household income (in 2006 dollars) is well above the current U.S. poverty level of $20,000. Note, however, that the range among communities is large – more than $40,000 separates median incomes in Marin and Minneapolis.

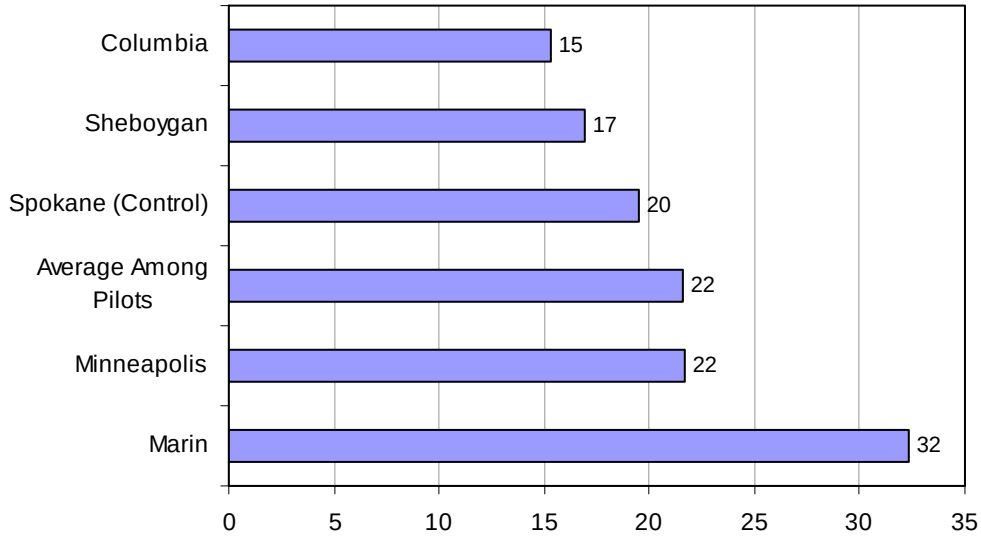
Figure 1.3: Median Household Income (in 2006 dollars)



TRAVEL BEHAVIOR

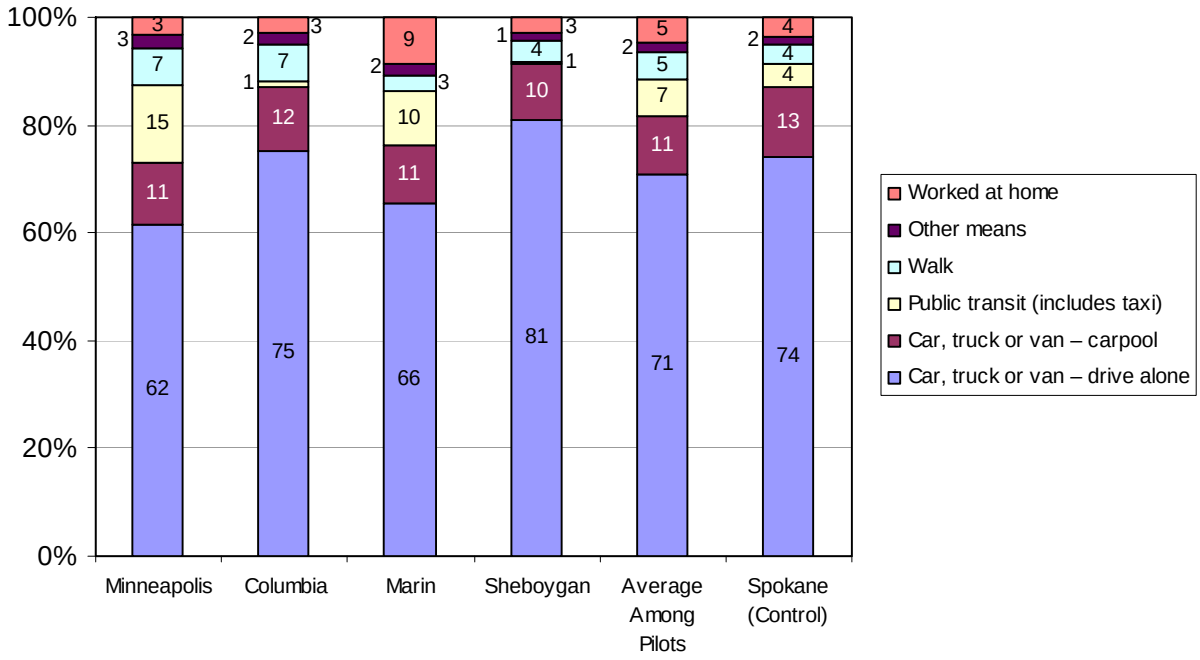
The average number of minutes an individual spends *commuting to work* can influence mobility decisions and commuting patterns. Issues such as traffic congestion, rising gasoline prices, and growing distances between work and home could prompt individuals to expand their chosen modes of transportation to include transit or nonmotorized options, perhaps in combination. Among the four pilot communities, Marin residents experience the longest work commutes at more than half an hour (Figure 1.4). Columbia residents experience the shortest commute, at approximately one-quarter hour. The data displayed in this figure are obtained from the 2000 decennial U.S. Census; directly comparable data will need to be gathered through other sources at the closing stages of the pilot program, as new Census data will not be readily available in 2010.

Figure 1.4: Average Commute Time (in Minutes)



How long it takes an individual to get to work depends on the worker's *means of commute*. In all four pilot communities (Figure 1.5), an overwhelming share of workers age 16 and over commutes by vehicle (including carpooling and driving alone). Note, however, that Minneapolis has a relatively high share of workers commuting by walking, public transit and other means. It is also interesting to note that Marin displays more than double the number of "work-at-home" workers than the other communities.

Figure 1.5: Means of Commute (for Workers Age 16+)



This summary begins to paint a picture of each community using selected demographic characteristics, and will help us understand the kinds of transportation choices residents make.

This information helps define the community context for the four pilot programs, and can be valuable when juxtaposed against each pilot's use of program funds to generate positive impacts in their communities.

Finally, please see Tables 1.2 and 1.3, and their related notes on pages 15 through 17. The tables include data provided by various sources, including the pilot communities, State Departments of Transportation (SDOTs), the Federal Transit Administration (FTA), and the University of Minnesota (through its Phase I research).

Table 1.2 presents information about each community's existing transportation network, while Table 1.3 presents information about transportation usage, and travel behavior. Both tables provide additional context for the individual descriptions of NTPP activities in the four pilot communities that appear in Chapter 2.

Table 1.2: Transportation Network in Pilot and Control Communities

	City of Columbia	Marin County	City of Minneapolis	Sheboygan County	Spokane (Control)
TRANSPORTATION NETWORK					
Public transit buses[1]	24	263	843	41	288
Number of track miles of light rail[2]			24.2		
Number of ferryboat vessels[3]		4			
Annual Vehicle Revenue Miles[4]	540,281	6,361,243	25,884,056	716,854	7,855,371
BICYCLE AND PEDESTRIAN NETWORK					
Miles of off-road lanes or pathways	25 miles	33.7 miles	57 miles	35.5 miles	Unavailable
Miles of marked or striped bike lanes	28 miles	35.8 miles	38 miles	1.75 miles	Unavailable
Miles of sidewalks	350 miles	Unavailable	1841 miles	414 miles	Unavailable
Percent of roadways with sidewalks on at least one side of street	61%	Unavailable	91%	Unavailable	Unavailable
Total Fare Revenues[5]	$196,190	$23,420,295	$66,073,401	$490,035	$5,847,503

[1] "Vehicles Available for Maximum Service" from Federal Transit Administration's National Transit Database 2005 Transit Agency Profiles.

[2] From Federal Transit Administration's National Transit Database 2005 Data Tables (Table 23).

[3] Number of ferryboat vehicles operated in maximum service by Golden Gate Bridge, Highway and Transportation District from Federal Transit Administration's National Transit Database 2005 Data Tables (Table 24).

[4] "Annual Vehicle Revenue Miles" from Federal Transit Administration's National Transit Database 2005 Transit Agency Profiles. This figure represents the number of miles that vehicles travel while in revenue service. Vehicle revenue miles (VRM) include layover/recovery time, but exclude deadhead, operator training and maintenance testing, as well as school bus and charter services.

[5] "Total Fare Revenues Earned" from Federal Transit Administration's National Transit Database 2005 Transit Agency Profiles.

Table 1.3: Transportation Usage and Travel Behavior Among Communities

	City of Columbia	Marin County	City of Minneapolis	Sheboygan County	Spokane (Control)
TRANSPORTATION USAGE					
Total annual "unlinked" public transit trips[1]	540,181	9,465,372	69,698,813	544,904	8,280,757
Total annual passenger miles[2]	2,092,610	95,828,152	309,677,298	1,926,024	40,931,915
Average weekday "unlinked" public transit trips[3]	1,898	31,673	227,373	2,000	28,634
BICYCLE					
Average daily trips[4]	3.82	2.81	3.56	2.18	2.45
Average trip distance[5]	7.94 miles	8.55 miles	8.33 miles	7.72 miles	8.55 miles
Average trip duration[6]	47.7 min.	51.3 min.	50.0 min.	46.3 min.	51.3 min.
PEDESTRIAN					
Average daily trips[7]	2.54	2.43	2.54	2.17	2.18
Average trip distance[8]	2.12 miles	2.31 miles	2.29 miles	2.22 miles	2.18 miles
Average trip duration[9]	42.4 min.	46.2 min.	45.9 min.	44.4 min.	43.6 min.
Percent of trips to/from transit via bicycling/walking	89%	45%	88%	84%	78%
Percent of trips to/from transit via driving	11%	55%	12%	16%	22%
Reduced auto use due to bicycling and walking (miles per adult per day)[10]	0.447 miles	0.668 miles	0.816 miles	0.256 miles	0.310 miles
Total annual estimated reduction in auto travel due to bicycling and walking (in miles)	11,044,959	48,281,361	91,125,498	8,433,901	17,708,337
Automobile Vehicle Miles Traveled[11]	6,565,000	6,701,100	18,320,836,280	1,045,719,000	Unavailable
TRAVEL BEHAVIOR BY MODE[12]					
Vehicular	86%	82.0%	69.0%	89.0%	85.0%
Rideshare	2.8%	1.4%	2.2%	2.4%	2.0%
Transit	2.2%	3.2%	9.7%	1.2%	4.1%
Bicycling	1.5%	1.8%	2.0	0.7%	0.8%
Walking	8.6%	11.8%	17.6%	6.6%	8.5%

[1] Federal Transit Administration's National Transit Database 2005 Transit Agency Profiles; public transit boardings.
[2] Federal Transit Administration's National Transit Database 2005 Transit Agency Profiles; one passenger riding one mile is one passenger mile.
[3] Federal Transit Administration's National Transit Database 2005 Transit Agency Profiles.
[4] University of Minnesota study. Data represent average number of trips by commuters, per day, and excludes other destinations.
[5] University of Minnesota study. Data are measured in miles, and refer to total daily miles for commuters only, not destinations. The total daily mileage has been calculated by UMN, and is a function of average daily bicycling duration multiplied by distance covered at typical bicycling speed of 10 miles per hour.
[6] University of Minnesota study. UMN calculated this figure based on the percentage of trips that fall into each of three categories of trip duration. Actual duration in minutes was not solicited from UMN survey respondents; rather, respondents categorized their trip duration according to three ranges (10-29 min., 30-59 min., and 60+ min.). An average total daily bicycling duration was derived from this information.
[7] University of Minnesota study. The data points in this row represent the average daily number of pedestrian trips taken by commuters, not destination walkers.
[8] University of Minnesota study. Data are measured in miles, and refer to total daily miles for commuters only, not destinations. The total daily mileage has been calculated by UMN, and is a function of average daily walking duration multiplied by distance covered at typical walking speed of 3 miles per hour.
[9] University of Minnesota study. Actual duration of daily walking (in minutes) was not solicited from UMN survey respondents; rather, respondents categorized their total daily walking duration according to three ranges (see footnote 8, above). An average daily walking duration was derived from this information.
[10] University of Minnesota study. These data represent total number of miles of avoided auto use per adult resident per day, and represent the average of upper bound and lower bound estimates.
[11] Marin County: Metropolitan Transportation Commission (2007). Minneapolis data are from MnDOT (2001), and include all VMT in Anoka, Hennepin, and Ramsey Counties. Sheboygan County: Wisconsin State DOT (2005). Columbia data are from the City of Columbia, MO.
[12] University of Minnesota study. Data points represent percentage of total person trips by each of five modes. Due to rounding, totals may not sum to 100%.

Chapter 2: Plans for Implementation and Progress

This section presents a summary of each of the four pilot communities based on geography, and for the NTPP, their objectives, planning approach, types of projects to be implemented, achievements to date, and their next steps.

As communities approached NTPP implementation, they were encouraged to consider the following themes (which complement the topics articulated in the legislation):

- Improving safe access;
- Improving public health through physical activity;
- Working with land use policy and transportation planning processes;
- Leveraging resources;
- Improving connections to other transportation modes as part of an overall transportation system, with an emphasis on links to public transit; and
- Raising public awareness.

Table 2.1 on the following page offers a snapshot of NTPP implementation from program inception through summer 2007.

Table 2.1: Quick Reference to NTPP Pilot Communities and Program Implementation Progress

	City of Columbia	Marin County	City of Minneapolis	Sheboygan County
Status of Plans for Projects	o Promotion and Education Plan (October 2006) o Infrastructure Working Plan (March 2007)	o Approx. $20M allocated for projects through 2009 o Nearly all 11 incorporated communities have bike/ped plans. o Funding plan adopted by Board of Supervisors	o $7.3M programmed as of spring 2007	o County's Comprehensive Pedestrian and Bicycle Plan identifies nonmotorized priorities
Approach to Management	o City Council's NTPP Committee advised by "PedNet" Citizens Advisory Committee o Three subcommittees (Outreach and Programming; Roadways and Sidewalks; and Trails)	o Program branded as "Walk Bike Marin" o 19-member Advisory Committee appointed by DPW	o "Transit for Livable Communities" manages NTPP, advised by "Bike-Walk Advisory Committee" (B-WAC) o 3 B-WAC subcommittees (Planning; Communications; and Facilities and Operations)	o County Board of Supervisors oversees program o Citizens Advisory and Technical Committee (CATC) provides guidance
Existing Bike/Ped Facilities	SHARED-USE PATHS: **25 MI** STRIPED BICYCLE LANES: **28 MI** SIDEWALKS: **350 MI**	SHARED-USE PATHS: **33.7 MI** STRIPED BICYCLE LANES: **35.8 MI** SIDEWALKS: **N/A**	SHARED-USE PATHS: **57 MI** STRIPED BICYCLE LANES: **38 MI** SIDEWALKS: **1841 MI**	SHARED-USE PATHS: **35.5 MI** STRIPED BICYCLE LANES: **1.75 MI** SIDEWALKS: **414 MI**
Project Mix	o 21 non-infrastructure projects starting in 2007 o 11 high-priority infrastructure projects starting in 2007	o 17 infrastructure projects o 12 promotional or educational projects o 6 planning studies	o 3 infrastructure projects o 3 planning projects o 2 promotional projects	o 5 infrastructure projects o 4 promotional or educational projects o 2 planning studies
Project Selection Criteria	o Plans described above outline selection criteria o Projects have one of three priority levels (I, II, and III)	o Committee-driven process to develop ranking and scoring criteria	o Points-based system developed by advisory committees	o Developed by CATC and approved by Joint Resources Committee
Leveraged Funds / Prospects for Leveraging Funds	o N/A	o NTPP funds contributing to one major rail-tunnel conversion, and expansion of bicycle facilities at medical campus	o N/A	o N/A

PILOT COMMUNITY: COLUMBIA, MISSOURI

For More Information: www.GoColumbiaMO.com/PedNet_Project

The Community

With a population of less than 100,000 residents, Columbia, Missouri, is the smallest of the four pilot communities. The city is home to the University of Missouri-Columbia, a major research university. Thus, median age in this pilot community is the youngest of all four pilots, hovering around 27 years old.

Like the other three pilot communities, more than 85 percent of the city's 45,000-person workforce commutes by vehicle (either alone or in carpools). However, of the four pilots, Columbia experiences the highest share of workers who commute by walking (7 percent). Columbia's existing network of trails, well-organized bicycle and pedestrian advocacy group, and dense downtown make the city a good candidate for innovative nonmotorized infrastructure and educational activities.

The Objectives

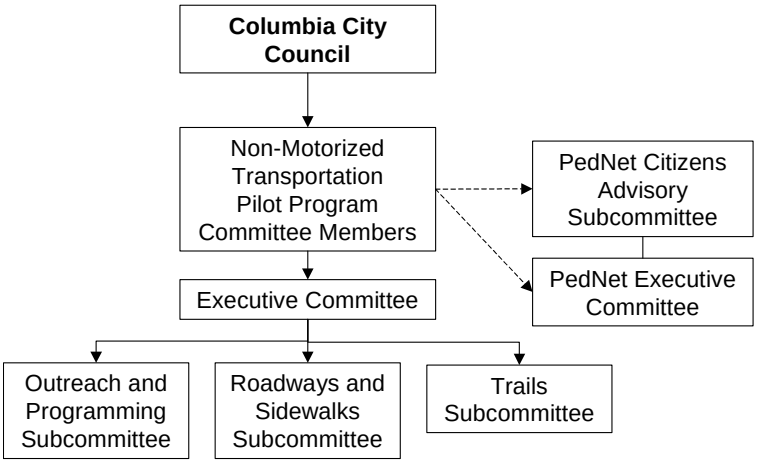
Columbia's aim in implementing the pilot program is to spark behavior change. The infrastructure aspects of the project will complement promotion and educational programming to motivate individuals to move from all-auto use to walking and bicycling for recreation, and then to walking and bicycling for utilitarian travel, enhancing skills and competency in the process. Infrastructure complements educational activities by providing safe facilities (on and off road) that allow this to happen.

Planning and Administrative Approach

Columbia has leveraged existing community support for nonmotorized transportation by working with established community bicycle and pedestrian advocacy groups. The city has named its nonmotorized pilot project the PedNet Project, and created a Web site to distribute information about the project: www.GoColumbiaMO.com/PedNet_Project.

The PedNet Project is advised by committee members representing a cross-section of stakeholders, including bicycle and pedestrian advocates, transportation decision-makers, and community activists (Figure 2.1). In addition to producing two planning documents to generate ideas for infrastructure and educational programs and projects, the PedNet Project has incorporated program evaluation into its management approach. While the city will take part in the larger four-community NTPP evaluation activities, it has opted to lead its own manual and automated counts of users on bicycle and pedestrian facilities.

Figure 2.1: Columbia, MO NTPP Management Chart



The Projects

The PedNet program's managers and advisory committees developed criteria for evaluating the value of infrastructure and promotional/educational projects. Two plans were developed that outline the multi-year effort to expand facilities and promotional campaigns. The draft October 2006 Promotion and Education plan describes a range of projects and activities from traditional public involvement to targeted education. The goal of those types of projects is behavior change, and specifically, encouraging individuals to get out of their cars and use their feet to walk or pedal for errands or even to go to work. Programs, events, and classes will directly promote this change.

Projects to be supported in 2007 are described in the table on the following page (other planning documents discuss possible 2008 projects). PedNet's March 2007 Infrastructure Working Plan identifies priority projects including sidewalks, pedestrian walkways, trails and similar facility projects. Columbia is planning for 100 miles of new bikeways and sidewalks, 19 miles of new paths and trails (added to an existing 25 miles), 66 more miles of streets with striped bike lanes (there are currently 28 miles), and 23 miles of streets with bike routes marked on the streets. The community is also undertaking several "Bike Boulevard" demonstration projects, and plans to add nine miles of priority sidewalks and "pedways."

Only those projects listed as "Priority 1" are described below (Table 2.2). Columbia's plan includes many Priority 2 and Priority 3 infrastructure projects. Bicycle lanes will be the first projects to be implemented, starting in summer 2007. Because of right-of-way acquisition needs, few new paths will be opened before the fall of 2008.

Table 2.2: Columbia's Priority 1 Projects

Project Type	Project	Status
Infrastructure	o Missouri-Kansas-Texas Rail Trail (MKT) Hinson Creek and Bear Creek trail projects with six neighborhood connections o Acquisition of additional trail ROW for four trails o Downtown and University of Missouri-Columbia hub/spoke bicycle lanes o Demonstration bicycle route project in downtown o Three intersection projects o Five bridge overpass projects o Demonstration grate replacement project o Downtown bicycle racks o University projects (including shelters, racks, striping, and trail extensions) o Neighborhood and school-area sidewalks o Three pedestrian walkways	Deemed highest priority projects
Education	o Bike safety courses o Seminars for engineers o Targeted group clinics o Shift program o Adult-ed night courses	Funded; starting in 2007
Public Awareness	o Web site o Project Office (e.g. storefront) o Print and e-mail newsletters o Social Marketing o Media relations o Event participation	Funded; starting in 2007
Encouragement and Support	o Errand bikes o Earn-a-bike program o Bike, Walk, and Wheel Week o Walking School Bus o Sunday Street Closings o Other experimental or demonstration projects	Funded; starting in 2007
Assessments / Surveys	o Manual counts o Automated counts	Funded; starting in 2007
Wayfinding	o Maps o On-street markings	Funded; starting in 2007

Columbia has identified two "signature" projects that are proposed for the city's bikeway network. These projects, described in the Infrastructure Working Plan are:

- **Clinkscale to Cosmos I-70 overpass bridge**: This pedestrian bridge connecting the north-side residential developments to the core city area via a multi-use path thru Cosmos Park and along Bear Creek could be a signature bridge since it is also the entrance to Columbia from the west.

- **Douglass School - Providence Pedestrian Overpass and Flatbranch Park Pedway connection**: The existing pedestrian overpass is neither compliant with the Americans with Disabilities Act (ADA) nor bike compatible, and is rarely used. This concrete eyesore can be upgraded to be "wheel compliant" by replacing the span, adding ramps and at the same time making it attractive. It could be a signature entrance to downtown Columbia – while at the same time visually promoting the PedNet transportation initiative. If done right, it will become a major bicycle and pedestrian feeder, extending the Missouri-Kansas-Texas Rail Trail (MKT) from Flatbranch Park to Douglass Park and the Housing Authority complex.

Innovative non-infrastructure projects include:

- **Social Marketing**: Mass media marketing (radio spots, possible ads in publications, etc.), such as the recent radio and poster campaign conducted by the Health Dept., would be targeted at specific audiences to create "a buzz" and promote and generate interest in the program.

Achievements and Next Steps

With two plans already developed, the PedNet Project is moving into the implementation phase, and will work this year to begin design and construction for new infrastructure projects. The PedNet Project will continue to work closely with its advisory committees and subcommittees to complete and evaluate projects identified for 2007, and develop strategies to implement projects identified for 2008.

PILOT COMMUNITY: MARIN COUNTY, CALIFORNIA

For More Information: www.WalkBikeMarin.org

The Community


MARIN COUNTY, CA

Marin County, in the San Francisco Bay Area, is home to almost 250,000 residents spread throughout the County's 520 square miles (note that most residents are concentrated in 121 square miles in eastern urbanized portion of the County). Marin County is the second largest pilot community (in land area and population), and approximately three-fourths of Marin's 126,000-person workforce commutes by car, van, or carpool.

The County boasts many miles of bicycle lanes, multi-use trails, and signed routes throughout Marin's neighborhoods, and benefits from a temperate climate, making it possible for residents to bike or walk year-round. Countywide plans are in place to construct new – and enhance existing – facilities, and implement new educational and promotional campaigns.

The Objectives

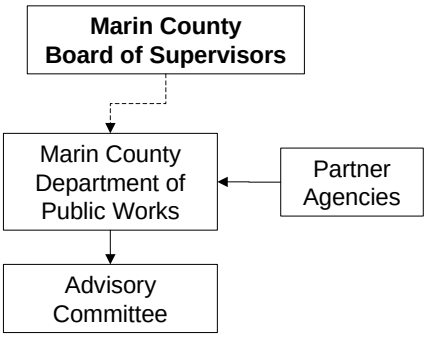
Marin County and its eleven incorporated communities are all eligible to participate in the NTPP. Nearly all of the communities have adopted bicycle and/or pedestrian plans. These plans are being updated and recommend new bicycle facilities and infrastructure development, along with promotion and education about bicycling and walking options. The goals of Marin's NTPP are similar to those identified by the other pilot communities – the County has funded projects that it believes will realize shifts towards nonmotorized modes of transportation, and increases in ridership on buses and ferries. Broadly, the community is committed to the program's core themes: safety, health and physical activity, connections to transit and community facilities, improved planning process and policies, and public awareness.

Planning and Administrative Approach

Marin County has leveraged its designation as a pilot community to create "Walk Bike Marin," an initiative designed to manage the nonmotorized program, and share information about the County's bicycle and pedestrian projects. Information is available to stakeholders and the public at www.WalkBikeMarin.org.

The Marin County Department of Public Works, through Walk Bike Marin, manages the program (Figure 2.2). In 2006, Marin's Director of Public Works appointed a 19-member advisory committee composed of transportation, business, and health professionals, bicycle and pedestrian advocates, public works and planning staff, senior and disabled advocates, education and environmental advocates, a city manager, and others.

Figure 2.2: Marin County, CA NTPP Management Chart



Committee members participated in multiple committee meetings and two community workshops, assisted in the development of the project and program scoring and ranking methodology, solicited feedback from their respective constituencies, and presented a recommended schedule of projects and programs to be considered for funding. The approach was designed to expand opportunities to engage the public in the planning process, and to strengthen policy discussions about nonmotorized transportation.

The Projects

Because the focus of the program is to encourage use of bicycles or walking instead of driving, selected projects are located in the urbanized eastern corridor of the county, and are not of a primarily recreational nature. It is anticipated that infrastructure projects will be constructed by the end of 2009 so that their effects can be measured in 2010. Educational programs are being initiated in 2007.

Marin County's project list distinguishes "primary network" infrastructure projects from "countywide" infrastructure projects or "local network/feeder" projects. Generally, the primary network consists of alignments along major north-south and east-west corridors. These include old railroad grades, paths along major waterways, and paths and/or bike lanes on key arterial streets. Countywide projects include bicycle racks and lockers, striping and signage projects, intersection improvement, and steps, lanes, and paths that will be implemented at multiple locations, and can be efficiently constructed through consolidated contracting. Local/Feeder projects tie into the primary network, but serve smaller neighborhoods or activity nodes. These are the local serving routes that may or may not provide through-connections to primary routes or destinations.

Next, non-infrastructure programs are categorized as 1) resources, 2) education, 3) public awareness, or 4) incentives. Finally, some projects focus exclusively on planning activities, such as a corridor study.

On April 17, 2007, the Marin County Board of Supervisors adopted a funding program which allocated the full $20 million assumed for the Pilot, once obligation limits, national program obligations, and local implementation costs are subtracted. The list of funded projects and programs appears below (Table 2.3).

Table 2.3: Marin's Projects and Programs

Project Type	Project	Status
Infrastructure	o Gate Six Rd/Bridgeway Intersection Improvements o San Rafael Transit Center Improvements o Enfrente Road Connector Class I* o Bridgeway to Ferry Path o Puerto Suello to Transit Center connection o Mahon Creek Path to Transit Center connection o Northgate Class II Gap Closure o Los Ranchitos Class II** o Reserve funding for Cal Park Tunnel Pathway and Puerto Suello Pathway o Alameda del Prado Class II** o Sir Francis Drake sidewalk and crosswalk improvements in Ross, Fairfax, and San Anselmo o Tennessee Valley Path Class I* o Doherty Drive Class I o Manzanita Connector Class I o Medway Road Improvements o Terra Linda/Freitas Parkway Class II** o Multiple-site, countywide projects including bicycle racks and lockers, signing/striping, minor intersection improvements, and steps, lanes, and pathways	All projects are funded
Planning	o Central Marin Ferry Connection o Alto Tunnel/Mill Valley-Corte Madera Divide Access Study o San Rafael to Fairfax Corridor Study o Bridgeway Path o Francisco Blvd. East Improvements o Miller Creek-Las Gallinas Improvements	All studies are funded
Education	o Bicycle education/street skills o Riding with Youth workshops o Facility Design Seminars for Engineers o Safety Campaign development	All programs are funded
Public Awareness	o Street Smarts program o Health promotion, co-sponsored with County Health Dept. o Share the Road/Share the Path program o Informational booths at community events	All programs are funded
Resources	o Bicycle repair classes or programs o Maps for directional signage o Community pathway/ walking maps	All programs are funded
Incentives	o Personal travel planning	All programs are funded

* A "Class I" facility provides "a completely separated right of way for the exclusive use of bicycles and pedestrians with cross flow by motorists minimized." (Caltrans Highway Design Manual at http://www.dot.ca.gov/hq/oppd/hdm/pdf/english/chp1000.pdf.)

** A "Class II" facility provides a striped lane for one-way bike travel on a street or highway." (See Caltrans Highway Design Manual at http://www.dot.ca.gov/hq/oppd/hdm/pdf/english/chp1000.pdf.)

Particularly innovative projects include the Personal Travel Planning effort, which aims to provide targeted education and consultation to thousands of households in Marin County interested in making nonmotorized transportation a larger share of their overall travel behavior. Marin County will also leverage pilot funds to complete substantial portions of the North-South Greenway, a long envisioned corridor running the length of the county along the railroad right-of-way, parallel to Highway 101, creating a safe, flat and direct pathway that will be separated from cars except for a few at-grade crossings. The North-South Greenway will provide access to all major transit centers, including bus stops, the two ferry terminals, and the planned stops for SMART, Sonoma Marin Area Rail Transit. The corridor has been planned as a rail-with-trail north of Larkspur.

Achievements and Next Steps

Walk Bike Marin has successfully worked with its consultants to collect background information and prepare initial working documents and maps. Now that the Board of Supervisors has adopted a funding plan, capital project development and program implementation are underway. The County and local partner agencies have adopted agreements, while preliminary design and environmental review are being initiated to meet the target completion date of the end of 2009 for capital projects.

PILOT COMMUNITY: MINNEAPOLIS AREA, MINNESOTA

For More Information: www.TLCMinnesota.org

The Community


MINNEAPOLIS AREA.

The City of Minneapolis is the most densely populated of the four pilot communities, with nearly 400,000 residents occupying 55 square miles. Most projects will be located in Minneapolis, though projects will also be considered along corridors leading into Minneapolis in 14 adjacent urban and suburban municipalities, the metropolitan airport, and a state park. The combined population of those adjoining communities is 550,000. Of the four pilot communities, Minneapolis experiences the highest share of non-vehicular commuting, with 17 percent of trips on foot and bicycle and four percent on public transit (2000 Metropolitan Council Travel Behavior Inventory). Transit for Livable Communities plans to increase the share of biking, walking, and transit ridership in the Minneapolis area through strategic infrastructure and educational investments, supported by the Nonmotorized Transportation Pilot Program.

The Objectives

The objectives of the Minneapolis pilot "Bike/Walk Twin Cities" mirror those in the three other pilot communities. The region is primarily concerned with testing how infrastructure improvements, combined with planning, public education, and promotion, can increase walking and biking, and reduce driving. More broadly, the community is focused on health and physical activity, safety, connections to transit, shifts in planning process and policy, and public awareness. These themes guide program management and project selection processes.

Planning and Administrative Approach

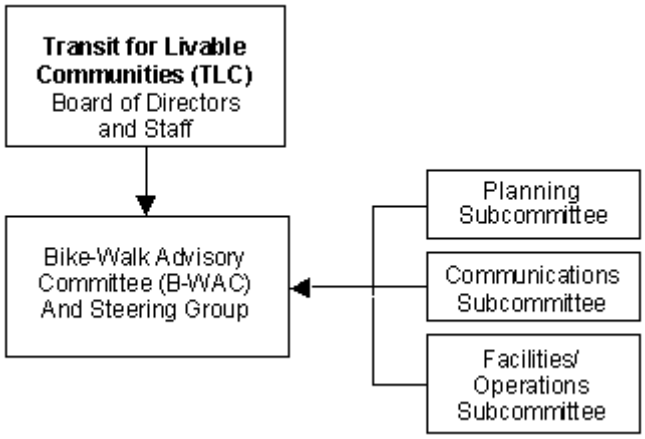
Transit for Livable Communities (TLC), a Twin Cities-based[4] non-profit and non-partisan organization, was identified in the Conference Report on SAFETEA-LU to manage the pilot program. TLC is governed by a Board of Directors and the organization is dedicated to realizing a balanced transportation system that encourages transit, walking, biking, and transit-oriented development. The organization has more than 10 years of research, education, and community organizing experience; TLC currently has three FTE staff and several contractors assisting with the NTPP.

TLC is working closely with public-sector partners, including FHWA, the Minnesota Department of Transportation, the City of Minneapolis, and the Metropolitan Council.[5] TLC has a fiscal agency relationship with the City of Minneapolis. The TLC Board has established a 26-member committee composed of representatives from neighborhood organizations, non-profits, businesses, public officials, citizen activists, and agency partners to advise it on implementation

[4] The "Twin Cities" include the cities of Minneapolis and St. Paul.
[5] The Metropolitan Council is the area's regional planning agency, serving more than 180 communities in seven counties

of the program over the 4 years of the pilot (Figure 2.3). The Bike-Walk Advisory Committee meets monthly and is organized into three subcommittees – all meetings are open to the public. The organization's Web site also provides program updates at: www.TLCMinnesota.org.

Figure 2.3: Minneapolis, MN NTPP Management Chart



The Projects

In early 2007, TLC issued the first of two solicitations ("Requests for Applications") to provide approximately $7.3 million for projects in three categories: planning, operations, and infrastructure, with the largest share (approximately $5 million) allocated for infrastructure projects (which included the sub categories "livable streets," "off road facilities," and "pedestrian districts/plazas").

In April 2007, TLC received 67 applications requesting a total of $28.5 million. Those applications were reviewed and scored by a consultant team and in June 2007, the TLC Board selected a slate of projects. This included $300,000 in planning grants; $2,008,400 in operations grants; and $4,584,000 in infrastructure grants for a total of $6,892,400. While there were few pedestrian-focused applications in this round, there will be more emphasis on pedestrian initiatives in direct awards and subsequent solicitations. As one form of technical assistance and support toward this end, TLC is sponsoring a pedestrian planning workshop for Minneapolis and adjoining communities in summer 2007.

Two projects have been funded through a Direct Award[6] process, and others have been funded through a traditional competitive process (Table 2.4).

[6] Direct Award projects are funded outside of the traditional competitive solicitation process, using a protocol established by the TLC board. Direct Award projects may be made for foundational plans (e.g., Minneapolis Pedestrian Plan, Metro Transit study of bicycle and pedestrian connections to transit), or where competitive solicitations are not practical.

Table 2.4: Minneapolis' Projects

Project Type	Project	Status
Infrastructure	o Bicycle parking in Minneapolis (at various locations, including schools, employment centers, recreation facilities, transit stops, and other community activity centers) o A construction project which will provide a significant travel connection between high-traffic destinations of the University of Minnesota main campus, downtown Minneapolis, and the University of Minnesota St. Paul campus o A 3.23-mile project in South Minneapolis that will include a bicycle boulevard treatment, providing an alternative for bicyclists to the heavy arterials between several neighborhoods and downtown Minneapolis	Funded
Planning	o Pedestrian Plan for the City of Minneapolis o A study to develop a Central Corridor Bicycle and Pedestrian Plan. The study will build upon the Central Corridor Development Strategy, to determine where bicycle and pedestrian connections can be created or improved to the anticipated light rail line between downtown Minneapolis and downtown St. Paul o The Douglas Drive Corridor Enhancement and Connection to Luce Line Trail Study seeks to provide a safe nonmotorized connection to Minneapolis. This will focus on land use issues and trail and sidewalk improvements, enhancing an important suburban travel route to Minneapolis	Funded

TLC is committed to funding innovative and significant projects that can serve as models in other communities; these innovative projects include:

- **Bicycle and Pedestrian Ambassador Program**: Modeled after ambassador programs in Chicago and Toronto, TLC intends to award $900,000 for a 3-year grassroots outreach and educational program. Activities will likely include safety education and promotion at junior and senior high schools, within the Minneapolis parks system, at businesses, and within neighborhoods. Materials developed by TLC for an educational and awareness campaign will be used by the Ambassador program.
- **Minnesota State Fair Exhibit**: TLC has been granted a license to take part in the Eco-Experience Exhibit as part of the Minnesota State Fair – the largest event in the state of Minnesota drawing over a million visitors during its 2-week run in late August 2007. The Eco-Experience Exhibit, which drew 350,000 visitors in 2006, showcases new ideas in environmental stewardship and energy conservation. TLC, working with several public and private sector partners, will promote transit use, bicycling, and walking as ecologically friendly forms of transportation.

Achievements and Next Steps

TLC has been successful at coordinating a diverse advisory committee, preparing solicitation materials, and selecting innovative projects designed to meet stated goals and objectives. In May 2007, TLC staff completed a needs assessment to examine current levels of bicycling and walking, analyze barriers and impediments to nonmotorized transportation, and identify

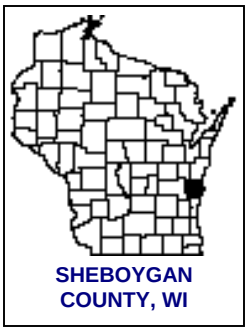
opportunities for improvement. In 2006, TLC began quarterly counts of bicyclists and pedestrians at locations across Minneapolis.

Moving forward, TLC will 1) administer at least one more round of grant funding for operations and infrastructure projects, 2) develop an awareness/education campaign, 3) sponsor a series of workshops and seminars, and 4) continue to work closely with the other three pilot communities to track changes in nonmotorized transportation activity.

PILOT COMMUNITY: SHEBOYGAN COUNTY, WISCONSIN

For More Information: www.co.Sheboygan.WI.us

The Community



Sheboygan County, Wisconsin, located on the western shores of Lake Michigan, is the second largest pilot communities in land area, covering more than 500 square miles. A mid-sized region with a Census 2000 population of approximately 110,000, Sheboygan County is composed of 15 townships, 10 villages and 3 cities – the largest of which is the City of Sheboygan, with a population of 60,000.

The County (administered by a County Board of 34 representatives) will disburse, through its Joint Resources and Transportation Committee (JRTC), approximately $6.25 million for nonmotorized projects in each of the four program years (2006-2010). With a workforce of nearly 60,000 – with more than 90 percent commuting by motor vehicle – Sheboygan County has an opportunity to advance mode shifts through a combination of infrastructure projects and public education campaigns.

The Objectives

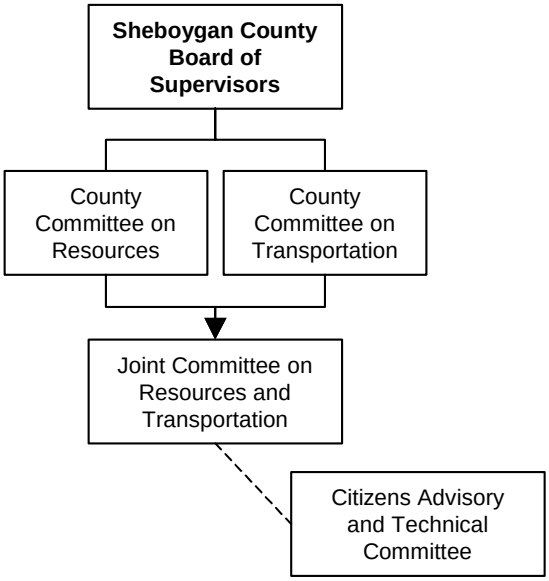
Program implementation in Sheboygan is motivated by the belief that a complementary set of infrastructure projects and public education projects can change attitudes and behaviors, and realize mode shift. The County's stated goals for the program center on the NTPP's themes: safety, accessibility and connections to community and public facilities, and policy shifts. Other critical themes adopted by pilot communities include health and physical activity, and raising public awareness of nonmotorized transportation. Planning documents clearly state program objectives and implementation strategies.

Planning and Administrative Approach

The Sheboygan County Board of Supervisors designated the Sheboygan County JRTC to oversee the program (Figure 2.4). In addition to the JRTC, the County Planning and Resources Department has hired two full-time employees and dedicated an additional staff person at 30 percent time to administer the grant for the County. The Department plans to hire summer interns as needed.

In March 2006, the JRTC appointed a Citizens Advisory and Technical Committee (CATC) from a field of 53 applicants. The CATC has 30 members from a variety of backgrounds and interests including transportation, education, health care, local businesses, chambers of commerce/tourism, local units of government, bicycle enthusiasts, and the general public. CATC members and staff review project applications, and the CATC makes project funding recommendations to the JRTC. To date, CATC volunteers have contributed the equivalent of one-year of a full-time employee's time to the NTPP effort.

Figure 2.4: Sheboygan County, WI NTPP Management Chart



Among other accomplishments, the CATC finalized its project selection criteria, which were approved by the JRTC. This is a crucial step in setting up an equitable process to review proposals.

Another major accomplishment was the creation of the County's Pedestrian and Bicycle Comprehensive Plan 2025, which is designed to provide an action plan for implementing the NTPP, and also to provide a basis for decision-making for the future. The plan, which was developed with stakeholder input, provides a blueprint for the expansion of Sheboygan County's nonmotorized transportation facilities. Completion of the comprehensive plan was a critical first step in formalizing strategic priorities and identifying potential projects.

As part of a commitment to public involvement, the County issues periodic newsletters to provide updates and information about the NTPP. These newsletters, which are distributed to interested stakeholders by e-mail, are also available through the Sheboygan County Web site: www.co.sheboygan.wi.us

The Projects

Sheboygan County's Comprehensive Pedestrian and Bicycle Plan identified more than 10 types of infrastructure projects – from sidewalks to shared use paths or trails – located in a broad range of neighborhoods, villages, and urban areas. The majority of the projects will enhance or extend existing infrastructure, or create new facilities throughout the County.

The County's application for program funds classifies three types of projects: 1) infrastructure, 2) education, and 3) promotion. In addition to sorting projects into these categories, the pilot community distinguishes projects that are especially innovative, and those that will impact planning and policy related to nonmotorized transportation. Table 2.5 provides a breakdown of projects selected to date.

Table 2.5: Sheboygan's Projects to Date

Project Type	Project	Status
Infrastructure	o Bike rack installation at County facilities o Town of Sheboygan bicycle/pedestrian facility on Mueller Road o City of Sheboygan bike racks on buses o City of Plymouth sidewalk construction on Eastern Avenue and Highland Avenue o Village of Howards Grove sidewalk construction and bike lane striping on Millersville Road between Elk Street and Highway 32 o Village of Oostburg sidewalk on north side of school district campus from 6th to 8th street	All projects are funded
Education / Promotion	o Village of Elkhart Lake Safe Routes to Schools o Bike to Work Week focusing on the city of Sheboygan, Sheboygan Falls, Plymouth, and the village of Kohler o North High "walk and bike to school day" (concurrent with Sheboygan Falls Bike to Work Week)	All projects are funded
Planning / Research / Policy	o Countywide planning for the Safe Routes to School program o Update of the comprehensive pedestrian and bicycle plan to better enable Sheboygan County to plan for the programs and projects that move forward as part of the NTPP. The plan extends past the end of the NTPP to help the county continue to enhance its pedestrian and bicycle programs well into the future.	Funded

Five projects are especially innovative, or could not have advanced without the support of the NTPP. These include:

- Applying for a design exception from MUTCD[7] for using chevron pavement markings on shared roadways (Infrastructure).
- Working to create a targeted marketing campaign to encourage use of nonmotorized transportation (Education/Promotion).
- Implementing the "Walk to School Initiative." On April 20, 2007, the City of Sheboygan Falls School District recorded that almost half of the elementary school students participated in the first Walk to School Day. The Village of Kohler held a concurrent event on the same day (Education/Promotion).
- The County Planning and Resources Department has teamed with the University of Wisconsin Extension service to staff a table at the Sheboygan County Fair, to promote the NTPP (Education/Promotion).
- Providing a resolution for municipalities to sign in support of incorporating pedestrian and bicycle facilities into their transportation planning process (Planning/Policy/Research).

[7] Federal Highway Administration (FHWA) publication "Manual of Uniform Traffic Control Devices"

Achievements and Next Steps

The management and implementation approach has been successful thus far, and has involved a spectrum of stakeholders in the project identification and implementation process. For example, the County Planning and Resources staff has worked closely with Bay Lake Regional Planning Commission, the Sheboygan Area Metropolitan Planning Organization (MPO), and the FHWA to amend the current Transportation Improvement Plan (TIP) to include many new nonmotorized infrastructure projects.

Moving forward, the County will continue to work with the CATC to identify and implement new infrastructure and non-infrastructure projects.

Chapter 3: Coordination and Communications

As explained below, a Working Group was formed for the purposes of coordinating activities across the four pilot communities and for coordinating the evaluation data being collected in each community. The Working Group has been an invaluable resource for coordination and information sharing purposes.

INITIAL MEETING OF THE PILOT COMMUNITIES

An initial meeting of representatives of the four communities was held December 7-9, 2005 in Washington, DC. Also attending were FHWA Field and Headquarters staff, U.S. Department of Transportation Volpe National Transportation Systems Center (The Volpe Center) staff, representatives of the Rails-to-Trails Conservancy, a member of the Marin County Bicycle Coalition; and staff of the Pedestrian and Bicycle Information Center (PBIC).[8] The meeting provided an opportunity to:

- Learn of the plans of each pilot community;
- Discuss the legislative NTPP requirements particularly relating to data collection and reporting;
- Explain how the Federal-aid highway system mechanisms will be used for funding reimbursements;
- Create a collegial relationship among the four communities and form a Working Group to help determine NTPP implementation.

FORMATION OF THE WORKING GROUP

The Working Group formed after the December 2005 meeting includes representatives from the following entities and agencies:

- The four pilot communities
- FHWA Headquarters
- USDOT/Volpe Center
- Rails-to-Trails Conservancy
- Marin County Bicycle Coalition
- Centers for Disease Control and Prevention

[8] The PBIC is part of the University of North Carolina's Highway Safety Research Center.

ONGOING ACTIVITIES OF THE WORKING GROUP

The Working Group members have participated in ongoing e-mail discussions and biweekly conference calls, which have served as an effective mechanism for coordinating efforts across the pilot communities. An evaluation subgroup has been working on issues specific to data collection and analysis.

Second Meeting of the Working Group

On November 7-9, 2006, the Working Group met in Minneapolis, Minnesota to share information among the pilot communities and discuss the development of the Program Evaluation Plan elements. The meeting also provided an opportunity for the Working Group to see the bicycle and pedestrian facilities available in that city.

Future Plans of the Working Group

Future annual meetings of the Working Group are planned. In October 2007, the Working Group is planning to meet in Sheboygan County, Wisconsin. Future meetings will be in Marin County, California, and Columbia, Missouri.

The ongoing coordination of community and evaluation activities will continue on a regular basis through telephone and e-mail communication.

COMMUNICATIONS PLANNING

As discussed in Chapter 1, SAFETEA-LU Section 1807, states that the purpose of the NTPP is "to demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load." Because the NTPP is a demonstration program, it is critical that the experiences in each pilot community be recorded, measured, documented and disseminated to a broader national audience. The recording and measuring of information (namely statistical information) in the four pilot communities is covered in Chapter 4: "Evaluation Approach and Issues." This chapter addresses the documentation and dissemination of that information.

To achieve its intended outcomes, the NTPP requires each pilot community to:

1. Plan, program and construct facilities that make bicycling and walking safe and possible, and to conduct education and outreach activities that encourage bicycling, walking, and the use of nonmotorized transportation.
2. Collect statistical information that measures success in achieving the purposes of the demonstration.
3. Document the non-quantifiable aspects of the demonstrations, including successful techniques and methods utilized in the conduct of the program and barriers to the achievement of program purposes.

Effective implementation of the legislation (which calls for a national demonstration program) is possible when the four pilot communities, together:

1. Coordinate an overall effort that assures that their four separate experiences, though different, are comparable and can be integrated into a single national report.
2. Implement a programmatic and technical consultation process among the pilot communities during the demonstration.
3. Share information among and within pilot communities, including sharing best practices and effective methods for program management and implementation.
4. Undertake an information transfer and communications outreach effort aimed at the larger national nonmotorized community during the demonstration and at its conclusion.
5. Prepare an Interim Report to Congress 2 years into the 4-year program, and a Final Report to Congress at the end of the program.

PLANNED ACTIVITIES

Section 1807 does not establish or fund a separate national program for information collection and dissemination. Representatives from each of the four pilot communities agreed to contribute a portion of their $25 million in authorized funding towards coordinated and unified communications activities. These contributions are administered through a 4-year $674,000 cooperative agreement between the Rails-to-Trails Conservancy (RTC) and the FHWA on behalf of the four pilot communities. The agreement was signed in September 2006, and outlines tasks in three broad areas:

1. Communications among the pilot communities;
2. Communications within each of the four pilot communities; and
3. Communications with the larger nonmotorized community.

COMMUNICATION STRATEGIES AMONG THE PILOT COMMUNITIES

As part of the tasks outlined in its cooperative agreement, the RTC has begun to coordinate program activities among the four communities through periodic in-person meetings, conference calls, and an e-mail listserv for representatives of the four communities.

Many of the strategies designed to improve communications among the four pilot communities take advantage of innovative electronic resources. For example, an NTPP Working Group listserv allows for moderated dynamic conversations and exchange of technical information among members. In addition to an e-mail listserv, RTC is developing a private Web site for Working Group members that includes features and functions such as a calendar, polls, chats, file sharing, a photo gallery, and other elements.

To complement e-mail and Internet communications, pilot communities participate in biweekly teleconferences to discuss issues and make decisions. Finally, RTC plans to organize two national meetings (similar to the December 2005 "summit") that provide a forum for information sharing.

COMMUNICATIONS STRATEGIES WITHIN EACH PILOT COMMUNITY

Each of the four pilot communities has a unique population – some pilot communities include small and rural towns or villages, while others are home to large urban university centers. In each community, stakeholders and local partners are playing a role in the implementation of the NTPP, from informal attendance at public events to formal participation on local advisory committees or other groups.

To communicate effectively with local partners and stakeholders, RTC is developing informational pieces common to the four communities that can be used to disseminate information about the NTPP.

COMMUNICATIONS STRATEGIES WITH THE LARGER NONMOTORIZED COMMUNITY

While local relationships are key to successful implementation of the pilot program, the four communities are encouraged to work with and learn from the larger national community of nonmotorized transportation advocates, and to have a cohesive presence at national events.

Goals and objectives in this area include maintaining a clearinghouse of NTPP information and coordinating activities to share information about NTPP progress with the larger nonmotorized community. Specific activities include coordination with FHWA's Bicycle and Pedestrian Website, developing annual reports on the NTPP, organizing speaker presentations on the NTPP (such as a panel at the Transportation Research Board's annual meeting in Washington, DC).

PROGRESS ON COMMUNICATIONS ACTIVITIES

This section describes progress on communications activities between fall 2006, when the RTC cooperative agreement was executed, and fall 2007. Some activities have been completed, while others are expected to be completed or are underway.

1. A moderated listserv has been established and has more than 60 members who are involved in administration and implementation of the NTPP. E-mail listserv activity is expected to increase as nonmotorized infrastructure and educational projects are identified and executed.
2. A private Web site for the use of the Working Group will be developed, with most of its features fully deployed by early 2008.
3. Regular biweekly teleconferences of the Working Group bring together 15-20 Pilot Program professionals to discuss program issues and make group decisions. The calls

are moderated by FHWA, with support from RTC and the Volpe Center. Since the program's inception, these telephone conferences have been a vital resource for group learning and consensus-building.

4. A successful summit meeting was sponsored by FHWA and RTC in December 2005; the summit established the Working Group and launched the Pilot Program. A subsequent 3-day meeting, similar in purpose to the 2005 meeting, was held in Minneapolis, Minnesota on November 7-9, 2006. During that meeting, attendees identified and addressed many important issues that had arisen during the first year of the program. This meeting was also the first opportunity for the pilot program managers to meet and engage in discussions among themselves. A third meeting is scheduled for October 2007 in Sheboygan County, Wisconsin.
5. RTC created posters and a brochure that are now in use by the NTPP communities. The materials provide narrative and colorful visual representations of the vision and purpose of the NTPP. Two national posters capture the broad objectives of the national program with one poster for each Pilot Community presenting a local picture of projects. A single national tri-fold brochure was designed to direct the attention of the viewer to the Web sites of each local pilot community for more information. As part of the development of these publications, a "trade name" for the Pilot Program was created: "SmartMobility -- Walk, Bike, and Benefit."
6. A calendar of meetings has been established and is being used to schedule presentations by representatives of the program. NTPP presentations have been made, or are scheduled to be made at conferences sponsored by the Institute of Transportation Engineers, American Public Works Association, National League of Cities, American Recreation Coalition, League of American Bicyclists, Rail-Volution, Pro Walk/Pro Bike, and other national, state, and regional groups.
7. This Interim Report to Congress is one of the program's most visible products. The report was developed with major contribution from all parties, including FHWA, RTC, the Volpe Center, and especially the four Pilot Communities.

Moving forward, RTC will continue to work with the pilot communities and the Working Group in undertaking the tasks outlined in its cooperative agreement with FHWA to expand and improve communications across the three broad task areas.

Chapter 4: Evaluation Approach and Issues

The enabling legislation requires the collection of data on changes in motor vehicle, nonmotorized, and public transit usage in the pilot communities. The Working Group developed the following documents to use in coordinating the collection of this information:

- Program Evaluation Plan (PEP)
- Statement of Work for Phases 1 and 3 community-wide data collection
- Framework for Phase 2 project level data collection

This chapter summarizes the approach to data collection, as reflected in these documents, describes the four phases of data collection, and summarizes issues and challenges encountered to date. As with the communications activities discussed in Chapter 4, pilot communities opted to pool a share of their authorizations to fund coordinated data collection and evaluation. While the legislation did not expressly fund this activity, each pilot community has undertaken the task of tracking and monitoring outcomes related to NTPP projects and nonmotorized activities.

PROGRAM EVALUATION PLAN

The PEP is an evolving plan that guides coordination and management of all aspects of evaluation. The Volpe Center and FHWA developed the PEP with input from and on behalf of the Working Group. The PEP provides a road map for efficient and comprehensive data collection and evaluation through the duration of the NTPP and identifies key technical aspects of evaluation to consider during specific phases of evaluation.

The Working Group will refine the PEP as the NTPP progresses. The goals of the PEP are to:

- Establish how all aspects of the NTPP fit together, including the relationship between project evaluations and evaluation of the overall program.
- Provide a framework for how evaluation reports to Congress will be organized, including expected content, topics, and themes.
- Coordinate key elements of evaluation, including roles and responsibilities of the Working Group, FHWA, the Volpe Center, and contractors.
- Provide a management document or "blueprint" for evaluation, encouraging efficient, consistent, and coordinated evaluation that results in objective and insightful reports.
- Provide a dynamic and evolving plan to be updated as the FHWA and Working Group make program decisions.

THEMES

Prior to the development of the framework for Phase 2, the Working Group identified themes that are related to the NTPP goals. The themes, listed below, represent topics of significant

importance that the communities identified as they developed their projects. As applicable, the communities will evaluate results related to the following topics:

- Improving safe access;
- Improving public health;
- Working with land use policy and transportation planning processes;
- Leveraging resources;
- Improving connections to other transportation modes as part of an overall transportation system, with an emphasis on links to public transit; and
- Raising public awareness.

Some of these themes involve measures of direct impacts of projects while others involve types of projects. To the extent possible, the framework identifies information or specific data items that will support conclusions related to these themes.

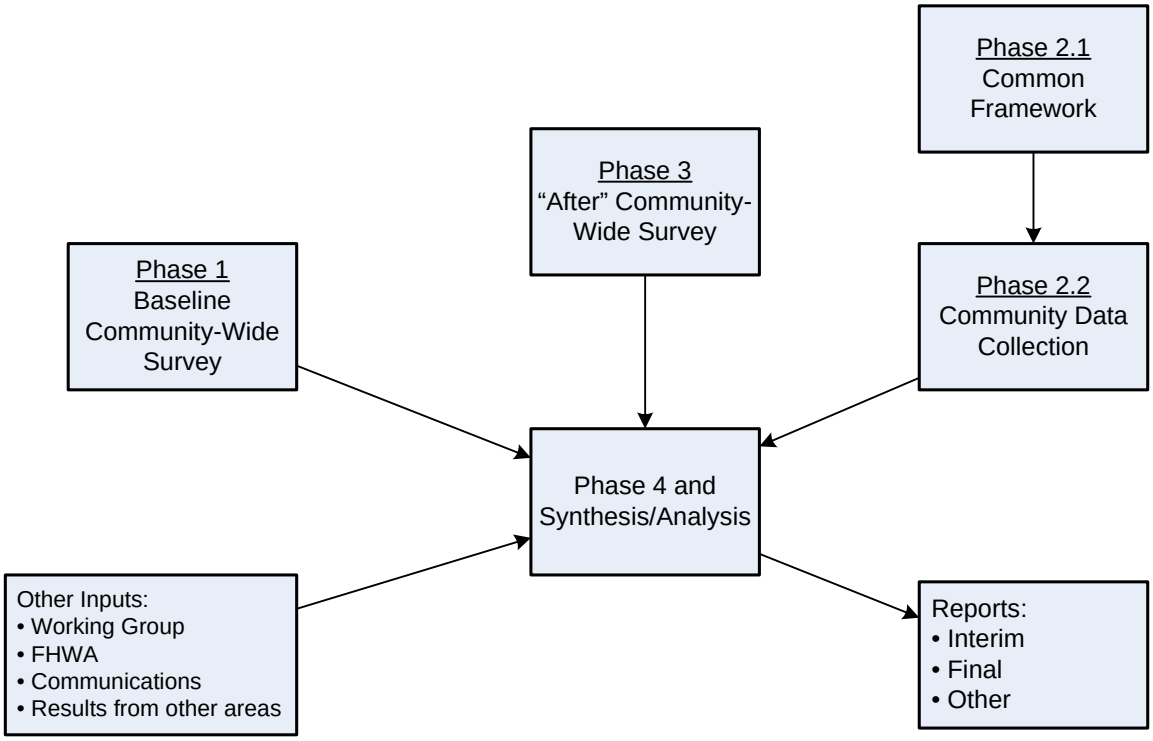
FOUR PHASES OF DATA COLLECTION

To manage the collection of data throughout the duration of the NTPP, the Working Group developed four phases of data collection, analysis, and reporting over the life of the NTPP:

- Phase 1: development and administration of a baseline community-wide travel behavior survey to be executed prior to project implementation.
- Phase 2: collection of "before" and "after" data for projects within each community.
- Phase 3: application of the same community-wide travel behavior survey used in Phase 1, to be performed in 2010 to capture travel changes after projects are implemented.
- Phase 4: synthesis and analysis of the data collected and results.

Figure 4.1 illustrates the relationship among the phases of evaluation.

Figure 4.1: Phases of Evaluation



PHASE 1

Phase 1 involves the development and execution of a plan for collecting data at the community level before any projects were implemented. The data collected in Phase 1 will provide a "baseline" of travel behavior and attitudes prior to implementation of the projects to be funded in the four pilot communities. The baseline data can then be used to compare data collected in Phase 3 after the projects are implemented to identify changes. The Working Group developed a statement of work for Phases 1 and 3 to guide applicants' proposals for performing this work.

The pilot communities selected the University of Minnesota to perform this work. The University of Minnesota performed a baseline community-wide travel behavior survey between September and December 2006. The University of Minnesota selected Spokane, Washington, as a control community to help assess whether changes in the pilot communities from 2006 to 2010 might be affected by external factors unrelated to NTPP.

The research team developed a data collection plan. In line with this plan, the research team first mailed a short survey to a randomly chosen set of households in each region. The short survey contained a few questions and asked the respondent to agree to participate in the full survey. Based on their response to a particular question on the short survey, respondents were assigned one of four mode categories for being a potential respondent to the full survey. Those who agreed to participate in the full survey were telephoned or e-mailed a link to the full survey at a later time. The full survey took approximately 18 minutes to complete by telephone.

The Centers for Disease Control and Prevention (CDC) worked with the University of Minnesota to develop survey questions to gauge respondents' physical activity levels and attitudes toward physical activity. Responses to these questions will be used in evaluating how the NTPP improves health, one of the goals of the pilot program, through increased physical activity.

PHASE 2

Phase 2 involves the planning for and collection, analysis, and reporting of project specific "before" and "after" data in each community. To ensure consistent data collection and analysis in the four communities, The Volpe Center worked with the Working Group and its Evaluation Subgroup to develop a framework and set of protocols to guide the development of community-specific project evaluation plans. The framework had to be modest in scope, to reflect the limited resources available for evaluation, and focused to provide information on all projects as well as capture impacts of some of the most significant projects in each community.

The framework:

- Ensures that project data collected and evaluated by each community are consistent with overall program goals and evaluation, as reflected in the PEP;
- Supports qualitative and quantitative assessments of projects;
- Improves the quality, consistency, and relevance of community-level project evaluations as key inputs to program reports;
- Assists the communities in contracting for local services; and
- Provides a sequence of activities, timeline, and process for coordination to promote efficient data collection and ensure that balanced and helpful information is available for the final report.

The framework provides a consistent approach to evaluation of infrastructure and non-infrastructure projects (e.g., training and marketing). Since the communities are making significant investments in both categories of projects, the evaluation effort must develop information on both.

Each community will develop a data collection plan in line with the framework, collect data on the basis of its plan, and conduct an analysis. The communities will decide how much of the Phase 2 work to perform themselves and how much to contract out to universities or consultants. The plans must be developed prior to project implementation to promote early thinking about how selected projects will support program goals and to ensure that baseline data are collected before projects are implemented. The plans should accommodate unique characteristics of each community's projects while adhering to overall program goals and schedules. To the extent possible, the four plans should be consistent and coordinated to support conclusions for the overall program.

Because it is impractical to collect quantitative data on impacts of all projects implemented, the Volpe Center and the Working Group devised three methods of measurement in the framework that can accommodate all project types. The methods, which apply equally to infrastructure and non-infrastructure projects, are aligned with the level of effort required to collect the data.

Each level builds on and incorporates the lower levels. While the communities will collect Level 1 data on all projects, each will collect Level 2 and 3 data only for at least five selected projects. The framework provides flexible criteria for the communities to use in screening projects to determine which are the most promising for thorough data collection and evaluation.

Level 1 is the simplest conceptually and least costly, and requires each community to develop descriptions of all projects, individually or in project type categories, including:

- The length, scope, or number of projects being implemented.
- The location or geographic extent of project.
- The design of the project.
- The estimated cost of project per unit.
- The purpose of the project.
- The estimated or expected level of use of the project.
- The period of performance.
- Whether the activity is new or a continuation of an existing activity.

Level 2 requires counts of facility users (e.g., bicyclists and pedestrians) for at least five projects in each community. For non-infrastructure projects, such as promotional campaigns, training, and similar activities, counts refer to the number of participants and replace the estimated or expected level of use of the project in Level 1. The counts will be performed – at a minimum – before and after each selected project is implemented. The communities are encouraged to follow the count methodology developed for the National Bicycle and Pedestrian Documentation Project (NDP) and to contribute count data to the national database on nonmotorized transportation usage being developed for the NDP (more information on the NDP can be found at www.altaplanning.com).[9]

[9] The NDP is an annual bicycle and pedestrian count and survey effort that is sponsored by the Institute of Transportation Engineers Pedestrian and Bicycle Council. Objectives of the NDP are to:

- Establish a consistent national bicycle and pedestrian count and survey methodology, building on "best practices" from around the country, and publicize the availability of this free material for use by agencies and organizations on-line.
- Establish a national database of bicycle and pedestrian count information generated by these consistent methods and practices.
- Use the count and survey information to begin analysis on the correlations between various factors and bicycle and pedestrian activity. These factors may range from land use to demographics to type of new facility.

Level 3 – The counts will measure changes in the number of users over time, but will not provide mode split information and other travel measures required to answer major questions of the enabling legislation. Accordingly, under Level 3 the communities will complete intercept or targeted surveys based on data and measures in Table 4.1. The surveys will also focus on individuals using a nonmotorized facility, or participating in a target group for a significant non-infrastructure intervention.

PHASE 3

Phase 3 is the follow up collection, analysis, and reporting of the community-wide "after" travel survey data (to be conducted using the same data collection plan used in Phase 1). The University of Minnesota will conduct the survey in 2010, after the communities implement their projects. This data will be collected in the four pilot communities, and in the control community (Spokane, WA).

PHASE 4

Phase 4 involves the compilation of the results from the phases of work described above. Work in this phase will be coordinated with other data collection, analysis, and synthesis, including consideration of information generated through communications activities (see Chapter 3), and other project and program evaluation aspects.

EVALUATION ISSUES AND CHALLENGES

Phases 1-3 deal with important challenges and issues that are common to similar efforts involving survey design, data collection, and program evaluation. The University of Minnesota identified the following challenges and issues pertaining to the collection of Phase 1 "before" community-wide survey data that were collected in fall 2006:

- Response rates were lower than anticipated. The statement of work for Phases 1 and 3 set a goal of 100 survey respondents for each mode (car, transit, walk, and bicycle) in each community to provide a sample resulting in a 95 percent confidence interval and a margin of error of ± 10 percent. However, the University of Minnesota was unable to find 100 respondents for all modes in each community for a variety of reasons, including that in some cases, there was low usage of some modes in some communities (for example, transit usage in Sheboygan County). Accordingly, the statistical level of confidence for some observations is lower than planned.
- Self-reporting bicycling and walking travel can have two problems that can impact the recorded rates of bicycling and walking:
    1. The definition of walking trips. Travel surveys can undercount walking because some respondents do not think of walking as a legitimate mode of travel, and omit walk trips in reports of daily travel. Also, it is not always clear what constitutes a walking trip -- surveys may not capture walking from one store in the mall to another,

walking five blocks from home to the bus, walking the dog, or stopping at a store during a dog walk. For the purposes of physical activity, all of these walk trips are important. Survey instruments must be carefully designed to capture all relevant walking trips. Discrepancies in definition make it difficult to compare the results of different surveys. The research team addressed this issue by developing some questions that parallel those used in other surveys, such as the CDC's Behavioral Risk Factor Surveillance System (BRFSS).

2. Survey respondents can consider walking and bicycling as "virtuous behaviors," leading to a degree of overestimation or "halo effect."

The Working Group anticipates that the above issues will also apply to the Phase 2 project-level data collection. In addition, other Phase 2 challenges are likely to include:

- Count accuracy. For infrastructure projects, no one location, date, or time will capture all of the use of the project for which data is to be collected. The NDP recommends times and methods that should capture a large number of project users. For projects that extend significant distances, it will be possible to conduct counts and distribute surveys only at one point along the project's path. The pilot communities must select the best location for each infrastructure project to perform surveys and counts.
- Weather implications. Weather will influence the number of people walking or bicycling on any given day. Weather conditions should be carefully recorded to determine possible effects on nonmotorized travel, and to make any necessary adjustments later.
- Control areas. If possible, each pilot community should select a control area that is likely to be unaffected by projects implemented by the NTPP, to identify possible area-wide factors that affect travel choice, including gas prices, concurrent community-wide physical activity initiatives, and even extreme weather.

Table 4.1: Evaluation Methods and Measures for the NonMotorized Transportation Pilot Program

		GOALS							
		Decrease motor vehicle usage	Increase nonmotorized transportation usage	Increase public transportation usage	Decrease congestion	Connect to community activity centers	Promote better health	Decrease energy usage	Promote a cleaner environment
MEASURES	**Collect statistics on…**	trip purpose[1,2,3]	trip purpose[1,2,3]	trip purpose[1,2,3]	volume[4]	population connected to activity centers[5]	ped/bike crashes and geographic dispersion[5,6]		
		number of trips per day by mode[1,2,3,6,7]	number of trips per day by mode[1,2,3,6,7]	number of trips per day by mode[1,2,3,6,7]	delay[4]	inventory of facilities connected to activity centers[5]	number of newly active users[1,2,3]		
		VMT[1,2,3]	miles biked[1,2,3]	public transit usage (miles)[1,2,3]					
		# of people in vehicle[1,2,3]	miles walked[1,2,3]	proximity to nearest transit stop[1,2,5]					
		vehicle ownership[1,2]	bicycle ownership[1,2]	bike on bus usage					
	Use already collected data on…						miles walked and biked[1,2,3]	VMT[1,2,3]	VMT[1,2,3]
							trip purpose[1,2,3]	bike/ped and transit usage[1,2,3]	bike/ped and transit usage[1,2,3]
	Non-infrastructure projects[10,11]	*Depending on timing, the evaluation of non-infrastructure projects can include the travel behavior measures above*							

Note: these measures can be collected at two levels - communitywide and project area specific

Note: using models and other tools,[8] convert travel data above to calculate physical activity impacts, energy usage and savings, and air pollution

METHODS FOR COLLECTING STATISTICS ABOVE
1. Surveying a Sample of General Population
2. Surveying Users of the Facility
3. Travel Diary
4. Level of Service (volume and delay)
5. Spatial Analyses/GIS
6. Manual Counts
7. Automated Counts
8. Data Conversion/Modeling
9. Policy/Plan Evaluations
10. Planning Process Evaluation
11. Awareness Surveys or Other Tools

Chapter 5: Results of Phase 1 Data Collection

BACKGROUND

This chapter is a summary of research conducted by the University of Minnesota's Humphrey Institute of Public Affairs and the Center for Transportation Studies, in collaboration with NuStats, in support of the NTPP. A full description of the research is provided at www.fhwa.dot.gov/environment/bikeped. The research team designed and implemented surveys to collect travel behavior data to establish a baseline or "before" information on travel by bicycling and walking in the four pilot communities (and in the control site of Spokane, Washington[10]). The research team will use this baseline data in comparisons to "after" data that it will collect with the same surveys in fall 2010 to identify changes in travel behavior in the pilot communities. This chapter summarizes the survey and analysis methods used in this phase of work and presents key characteristics of walking and bicycling behavior as they relate to NTPP objectives. The following results consider only the transportation patterns of adults primarily because of barriers to collecting survey information directly from minors.

KEY RESULTS

Across the four pilot communities, non-auto mode share (which includes travel by bicycle, walking, and public transit) for adults ranges from 8.5 percent in Sheboygan County to 29.3 percent in Minneapolis (Table 5.2). Survey data indicate that on a given day, about 2 to 4 percent of adults in the NTPP communities bicycle for utilitarian purposes (which includes bicycling to work or to other destinations, but not for recreation), while about 15 to 35 percent of adults walk (these are ranges across the communities). The average daily distance for bicyclists is about five to eight miles; for walkers it is about 1.5 to 2.0 miles. For both modes, about 30 to 40 percent of bicycle or walking work commute trips would otherwise have been made by driving. About 95 percent of bicycling and walking trips to other destinations would otherwise have been made by driving.[11]

Given these basic results, the research team arrived at a measure of "avoided driving" that can be attributed to walking and bicycling. The research team will use changes in this measure to identify broader changes related to program goals including environmental quality and energy use. While there was considerable variation across the communities, the two modes combined to replace approximately 0.25 to 0.75 mile of driving per day, per adult resident. About 70 percent of this avoided driving was due to walking. While walking trips are shorter, far more people walk than bicycle on any given day.

[10] Potential control communities were evaluated largely on the basis of median household income, current commuting rates, and geographic area. Additional factors included similarity or dissimilarity with pilot communities, and the likelihood of nonmotorized investments during the program's period of performance.
[11] The method used for these bicycling and walking estimates is described in the full description of the research, which can be found at www.fhwa.dot.gov/environment/bikeped

This use of walking and bicycling for utilitarian purposes reduces driving by about 1 to 4 percent, depending on the community. Because of the large populations involved and the constant nature of this rate of reduction over time, this seemingly modest contribution leads to significant long-term results: the research team estimates that the current total reduction in driving in all four program communities, over the course of an entire year, is in the range of 156.1 million miles.[12] This total excludes recreational trips and trips by children because the study primarily focuses on utilitarian trips.[13]

RESEARCH DESIGN

The research team designed two surveys – a short mail survey and a longer Internet or telephone followup survey – and conducted them between September 2006 and January 2007. From the original 31,120 mailed surveys a total of 4,457 were completed, yielding a 15 percent response rate. Of respondents who returned the mailed surveys, 1,514 completed followup surveys, for a 34 percent response rate. While most of the followup survey was the same for all respondents, one section was devoted to a more detailed exploration of a single "reference trip" as well as some mode-specific attitudinal questions. The "reference trip" is a term that refers to one mode-specific utilitarian trip per followup survey about which the research team asked several additional questions (e.g., trip distance and destination and perceptions along the route).

Table 5.1 shows the response rates for each community and the reference trips by mode. While the research design called for 100 responses/reference trips for each mode in each community to meet statistical objectives, this proved difficult and was ultimately not possible within time and budget constraints.[14] To control for possible external effects that could affect all of the communities (such as a dramatic change in gas prices or economic conditions), the research team identified and surveyed a control city, Spokane, Washington.

Table 5.1: Counts of Survey Responses by Community

Community	Self-mailer	Full Survey	Reference Trip Mode			
			Transit	Bicycle	Walk	Auto
Columbia	797	313	50	73	104	86
Marin	891	272	70	52	100	50
Minneapolis	837	343	123	62	104	54
Sheboygan	972	297	26	70	101	100
Spokane	960	289	66	50	100	73
Total	4,457	1,514	335	307	509	363

The research team surveyed specific geographic areas for each community. The survey was conducted within the city boundaries of Minneapolis and Columbia and within the county boundaries of Sheboygan and Spokane. For Marin, the survey focused on a specific list of

[12] See later discussion on assumptions related to how this number was calculated, weather, and survey timing.
[13] Utilitarian trips includes trips to a destination, for example, work, school, shopping, visiting friends, etc.
[14] One hundred reference trips for each mode in each community were desirable since those sample sizes would result in commonly used statistical confidences for conclusions drawn for each mode in each community.

census tracts representing the eastern urbanized portion of the county where projects will be concentrated.

ANALYSIS

Mode Shares

Table 5.2 provides mode share and total daily mileage per person by mode for utilitarian trips (trips made to a destination). Non-utilitarian trips (trips made solely for recreation or exercise) are discussed in a later section.

Table 5.2: Share of Total Person Trips by Mode and Average Daily Mileage per Person by Mode

	Auto			Walk		Bicycle		Transit	
Community	Vehicle %	Rideshare %	Average Miles	%	Average Miles	%	Average Miles	%	Average Miles
Columbia	86%	2.2%	15.1	8.6%	0.30	1.5%	0.10	2.2%	0.21
Marin	82%	1.4%	23.6	11.8%	0.40	1.8%	0.22	3.2%	1.37
Minneapolis	69%	2.2%	20.7	17.6%	0.55	2.0%	0.23	9.7%	2.23
Sheboygan	89%	2.4%	22.3	6.6%	0.16	0.7%	0.06	1.2%	0.11
Avg. for Pilots[15]	82%	2.1%	20.4	11.2%	0.35	1.5%	0.15	4.1%	0.98
Spokane	85%	2.0%	25.9	8.5%	0.25	0.8%	0.08	4.1%	0.88

Walking and Bicycling Leading to Reduced Auto Use

Given the objective of determining the amount of driving that is being avoided, the analysis focuses on trips that might have been made by driving if not by walking or bicycling. To determine the number of adults walking and bicycling for utilitarian purposes, the research team used the percent of respondents on the self-mailer who reported walking and bicycling to a place "yesterday." The research team assumed that all of these walking and bicycling trips were for utilitarian purposes and not solely for recreation or exercise. Children were not surveyed because of privacy concerns. The research team assumed that adult responses provided useful information about travel by children.

The research team used two sources of information to estimate total daily walking and bicycle mileage. One method uses average trip lengths from followup survey respondents with mapped walking and bicycling reference trips multiplied by the average number of daily trips by walking and bicycling. The research team estimated this number using the percent of respondents to the mailed survey who reported riding a bicycle or walking to a place the day before they completed the survey. The other method calculates average distance in miles based on total daily walking and bicycling travel times and uses an assumed average speed of 3 mph for walking and 10 mph for biking to estimate daily distance. The research team used the midpoint between these two estimates in the following analyses.

[15] These values reflect the average of the numbers in the columns above for the four pilot communities.

Between the two modes, the total estimated reduction in auto travel is in the range of 0.5 miles per adult resident per day. This is in the context of average levels of auto travel in the range of 15 to 25 miles per day per person, across the communities. Based on the research, the use of nonmotorized modes appears to reduce the amount of total auto travel in these communities by 1 percent to 4 percent, establishing a baseline from which to derive post-program comparisons (Table 5.3).

Table 5.3: Percentage Reduction in Auto Travel

Community	Estimated daily driving per adult (miles)	Daily walking and bicycling per adult (average in miles)	Percentage reduced
Columbia	15.1	0.45	3.0%
Marin	23.6	0.67	2.8%
Minneapolis	20.7	0.82	3.9%
Sheboygan	22.3	0.26	1.2%
Spokane	25.9	0.31	1.2%

Table 5.4 shows the total amount of auto driving for utilitarian purposes in miles that are annually substituted by walking and bicycling in the NTPP communities.[16] Because the survey was conducted at the end of the good weather season in most of the communities, the research team assumed that the daily bicycling and walking rates represent an average for the entire year (365 days). While winter rates will be lower than the average, summer rates will be higher, which led the research team to conclude that it is reasonable to assume that the two will offset each other.

Table 5.4: Total Annual Estimated Reduction in Miles of Auto Travel Due to Walking and Bicycling

Community	Average
Columbia	11,033,324
Marin	48,286,503
Minneapolis	88,887,977
Sheboygan	7,894,232
Total	156,102,036
Spokane	16,380,212[17]

Access to transit

A related question about mode substitution involves trips by transit. One possible impact of improved walking and bicycling conditions might be in providing better access to transit. If, for example, a person chooses to drive to work because it is too hard to find parking at a transit stop, improved nonmotorized access might help to eliminate a car trip by substituting it with a

[16] To calculate this number, the research team multiplied the average number of miles of auto travel reduced by walking and bicycling times the adult share of each community's population (from the 2000 census). The adult share for each community is as follows: Columbia, 80%; Marin, 80%; Minneapolis, 78%; and Sheboygan, 75%.
[17] This figure was calculated by multiplying the adult share of Spokane's total 2000 population (74%) by average number of miles of walking and biking per day (0.31 miles) by 365 days.

combined walk-transit or bicycle-transit trip. Table 5.5 shows what mode people used to get to a transit stop.

Table 5.5: How did you get to the transit stop?

Community	Bicycle/Walk	Drove/Rode	Sample Size
Columbia	89%	11%	47
Marin	45%	55%	64
Minneapolis	88%	12%	116
Sheboygan	84%	16%	25
Spokane	78%	22%	65

Recreational bicycling and walking

While the survey primarily focused on utilitarian travel, a number of questions addressed non-utilitarian, or recreational, travel. While the information in Table 5.6 is useful in identifying increased activity among those who walk or bicycle relatively infrequently, other questions provide additional information about those who already participate in these activities on a regular basis. Several questions closely mirror the Behavioral Risk Factor Surveillance System (BRFSS) administered by the CDC. Respondents were asked whether they walk or bicycle for at least 10 minutes at a time during a "typical" week. Those who do were then asked how many days per week they typically engage in each of these activities and for how many minutes on a typical day (Tables 5.7 and 5.8). These tables will provide a baseline against which to compare related changes in travel behavior in 2010.

Table 5.6: The most recent time respondent used a bicycle for any purpose or walked for recreation or exercise

	Within Past Week*		Within Past Month		Within Past 3 Months		Within Past Year		Not in the Past Year	
Community	Bicycle	Walk	Bicycle	Walk	Bicycle	Walk	Bicycle	Walk	Bicycle	Walk
Columbia	10%	50%	19%	68%	27%	75%	38%	80%	62%	20%
Marin	14%	67%	22%	77%	30%	82%	38%	86%	62%	14%
Minneapolis	11%	60%	27%	79%	38%	86%	48%	90%	52%	10%
Sheboygan	6%	50%	17%	67%	28%	75%	37%	82%	63%	18%
Avg. for Pilots[18]	9%	55%	19%	71%	29%	78%	38%	83%	63%	17%
Spokane	6%	48%	12%	64%	21%	72%	28%	76%	72%	24%

* Totals in the first eight columns are cumulative, i.e., "within past month" includes the total from "within past week."

[18] These values reflect the average of the numbers in the columns above for the four pilot communities.

Table 5.7: Frequency and duration of bicycling during "typical" week

	Frequency				Duration		
Community	**0 days**	**1 to 3 days**	**4 to 5 days**	**6 to 7 days**	**10-29 minutes**	**30-59 minutes**	**1 Hour or more**
Columbia	86%	10%	3.2%	1.3%	15%	42%	43%
Marin	78%	17%	4.9%	0.6%	13%	24%	63%
Minneapolis	79%	16%	4.4%	0.8%	13%	31%	55%
Sheboygan	77%	14%	6.0%	2.8%	22%	33%	45%
Avg. for Pilots[8]	80%	14%	4.5%	1.3%	14%	33%	53%
Spokane	82%	13%	4.4%	1.2%	8%	37%	55%

Table 5.8: Frequency and duration of walking during "typical" week

	Frequency				Duration		
Community	**0 days**	**1 to 3 days**	**4 to 5 days**	**6 to 7 days**	**10-29 minutes**	**30-59 minutes**	**1 Hour or more**
Columbia	17%	31%	27%	25%	29%	41%	30%
Marin	9%	28%	30%	33%	18%	44%	38%
Minneapolis	11%	24%	29%	35%	21%	37%	42%
Sheboygan	24%	28%	21%	26%	25%	39%	37%
Avg. for Pilots[8]	16%	28%	27%	29%	24%	40%	36%
Spokane	21%	31%	25%	23%	26%	39%	35%

Environmental, energy, and health impacts

Using these estimates of baseline travel behavior and the corresponding survey data in 2010, the research team will estimate the environmental, energy, and health impacts of the NTPP. The composition of the personal vehicle fleet can be determined from vehicle registration and other sources. U.S. Environmental Protection Agency (EPA) mileage estimates for the different models can then be applied to calculate gallons of fuel saved. Similar EPA tools for estimating urban emissions (based on miles driven and speed) will be used to calculate the avoided quantities of various types of pollutants. The research team also will estimate the health benefits of increased physical activity from the NTPP using survey data on the number of walkers and bicyclists and the frequency and duration of their activities.

CONCLUSIONS

The research team dealt with a broad range of issues inherent in this type of data collection, including: the impact of weather conditions; the need to over-sample to increase the number of survey respondents who bicycle and walk; and reporting biases among respondents. The research team provides more detail on these issues at www.fhwa.dot.gov/environment/bikeped.

While there is considerable variation across the communities, walking and bicycling for utilitarian purposes combined to replace approximately 0.25 to 0.75 mile of driving per day, per adult resident. About 70 percent of this avoided driving was due to walking. While walking trips are shorter, far more people walk than bicycle on any given day.

The research team estimates that walking and bicycling for utilitarian purposes reduce driving by about 1 to 4 percent, depending on the community. Because of the large populations involved and the ongoing nature of this reduction, this seemingly modest contribution leads to significant long-term results: the total reduction in all four program communities, over the course of an entire year, is estimated to be in the range of 156.1 million miles of avoided driving.[19] This total excludes recreational trips and trips by children.

[19] See discussion in "Walking and Bicycling Leading to Reduced Auto Use" section on page 48.

Chapter 6: NTPP Implementation Challenges, Opportunities, and Responses

SETTING THE STAGE FOR PILOT COMMUNITIES TO LEAD NTPP IMPLEMENTATION

From the outset, FHWA engaged the pilot communities and NTPP partners directly in the implementation of the NTPP. FHWA and RTC organized and facilitated the December 2005 kick-off meeting, bringing together representatives of the pilot communities, their respective State DOT's, and FHWA Division Offices. FHWA invited representatives of the Volpe Center and the Pedestrian and Bicycle Information Center (PBIC) to supplement the technical expertise of other participants in the meeting.

The kick-off meeting set the stage for the overall implementation of the NTPP. The participants identified implementation challenges and opportunities. FHWA division office, State DOT and pilot community representatives agreed to work together to advance NTPP projects. Pilot community leaders looked beyond the borders of their individual areas. They recognized their collective responsibility for demonstrating the extent to which bicycling and walking can carry a significant part of the transportation load by deciding to:

- **Develop an NTPP evaluation plan and a common framework** for evaluating individual NTPP projects in each community;
- **Pool NTPP funds to conduct the program evaluation**, disseminate results, and carry out other crosscutting communications activities; and
- **Form the Working Group that is guiding NTPP's overall implementation**, including program evaluation.

FHWA facilitates discussions during biweekly conference calls of the Working Group. FHWA also serves as the Working Group's principal representative for technical oversight of the University of Minnesota's research and related evaluation efforts. The Volpe Center provides technical advice to the Working Group primarily on evaluation issues and prepares summaries of each biweekly conference call. FHWA is using research funds, separate from NTPP funds, for the Volpe Center's support and participation in the Working Group. Table 6.1 summarizes the NTPP's administrative and program evaluation costs through spring 2007.

Table 6.1: NTPP Administrative and Program Evaluation Costs through Spring 2007

	NTPP Costs	FHWA Costs
University of Minnesota	$329,509	
Rails-to-Trails	$646,941	
Volpe Center	$151,400	$182,732
Total	$1,127,850	$182,732

ADVANCING FEDERAL-AID HIGHWAY PROJECTS

Pilot communities are advancing NTPP as Federal-aid highway projects as required by SAFETEA-LU and Title 23. Pilot communities are working quickly and effectively with their respective Metropolitan Planning Organizations (MPOs) to identify nonmotorized projects and add the projects as amendments to the Transportation Improvement Program (TIP). Pilot communities have raised the broader profile of nonmotorized projects, and have enhanced the ability of the nonmotorized organizations to participate successfully in broader transportation planning and decisions.

The pilot communities have streamlined and expedited the project development process as much as possible. Pilot communities also are obtaining the necessary environmental clearances and following other procedures applicable to Federal-aid highway projects. Pilot communities' representatives report that it takes more staff effort and time to advance Federal-aid highway projects, compared to projects that rely solely on local funds. They also share with one another their experiences and strategies for advancing these projects.

SELECTING NTPP PROJECTS AND OUTREACH WITHIN THE PILOT COMMUNITIES

Each pilot community has done a considerable amount of local outreach for the NTPP. This outreach has resulted in a high level of interest in the NTPP in each pilot community (as reflected in media coverage, involvement of elected officials, and public attention), and volunteers in each community continue to serve on advisory groups and committees. Each community has developed a viable approach to solicit, review, and select projects and programs from those proposed. The number of applications received has exceeded the funding available, in some cases, to a significant extent.

Pilot communities' representatives determined it was essential to develop a carefully considered and comprehensive set of criteria to prioritize and rank projects. It is important to document the criteria, and for the criteria to be transparent to all interested parties. The criteria should be developed with broad community involvement. Each pilot community is conducting extensive outreach and relying on advisory groups to receive public input on the selection of NTPP projects.

Each community has developed its own participatory planning process, bringing in a broad range of partners representing transportation organizations as well as other public and private sector perspectives. Some pilot communities have created advisory committees specifically for the NTPP, while others are relying on existing groups. While these planning processes differ in each community, the NTPP pilots have developed effective models for investing in nonmotorized projects –in capital or infrastructure projects, as well as promotional and educational programs. These planning and outreach efforts have sparked community-wide interest in nonmotorized transportation and in changing local agency policies on bicycle and pedestrian transportation.

The pilot communities believe it is essential to combine outreach, which raises community interest and expectations, with a sound technical process for selecting projects. When community participants accept the process as fair and balanced, it is possible to gain the broad support necessary to move ahead quickly to fund and implement the selected subset of proposed projects. Such outreach results in better applications for project funding. Across all communities, there is an interest in combining infrastructure projects with non-infrastructure projects, including education, outreach, and planning.

COORDINATING AMONG JURISDICTIONS WITHIN EACH PILOT COMMUNITY

When implementing large or complex projects, the pilot communities recognize the need to coordinate across jurisdictional boundaries. In some cases coordination involves working with city or county planning agencies, with MPOs to integrate the new projects within the metropolitan area-wide planning process (and meet federal requirements), and with State DOT and U.S. DOT field staff. In other cases, coordination expands beyond the traditional transportation sector, to include active collaboration with schools on Safe Routes to School projects or public health agencies to add rigor to consideration of the physical activity aspect of the NTPP's health theme.

Pilot communities expect these coordination efforts will contribute significantly to many aspects of NTPP's successful implementation such as meeting governmental requirements, leveraging resources, and expanding the scope and likely impact of projects.

LEVERAGING ADDITIONAL RESOURCES

While $100 million can support a wide range of nonmotorized projects, the development of complete nonmotorized networks in each of the four pilot communities requires leveraging additional resources. Thus, the pilot program's ability to generate insights that may be shared among other U.S. communities is limited by the extent of the nonmotorized network and nonmotorized projects that each of the four pilots can feasibly undertake.

Developing an open, constructive framework for selecting NTPP projects and coordinating across jurisdictions within the pilot communities opens the door to partnering and leveraging of resources.

The NTPP provides $25 million annually for infrastructure projects and educational programs. Pilot communities are using the funds to leverage State, local, and private funding to create a sophisticated network of bicycle and pedestrian facilities and related initiatives. For example, Marin County is investing $1 million of NTPP funds for nonmotorized access as part of a $200 million rail-trail tunnel conversion; the County is also investing in nonmotorized access to a new medical campus and to improve nonmotorized facilities within a major rail-trail tunnel conversion. These projects could not be implemented with NTPP funds alone. Leveraging will compound NTPP's impact in the pilot communities, hasten the ability to show results, expand

the scope and array of projects implemented, and thus increase the knowledge and understanding about the impacts of different types of projects.

Pilot communities also are leveraging in-kind support for the NTPP. For example, the CDC is providing expert consultation on how to measure improvements in physical activity, and the PBIC (part of University of North Carolina's Highway Safety Research Center) is providing helpful advice on travel behavior measurement.

SHARING INFORMATION AMONG THE FOUR PILOT COMMUNITIES

Pilot community representatives believe it is essential to coordinate efforts among the four communities, to share lessons learned as outlined in this chapter on challenges and opportunities, as well as to respond to inquiries about the NTPP in a consistent manner. The communities are diverse in terms of size, extent of existing bicycle and pedestrian networks, travel behavior, and many other characteristics. Thus, each community benefits from an exchange of different implementation approaches and planning practices.

EVALUATING NTPP

As summarized in Chapter 5, the University of Minnesota research team has collected community-wide "before" data. They encountered and overcame challenges inherent with this type of survey design and data collection, including the need to estimate relatively small numbers (e.g., bicycle mode split) within large geographic areas and to use limited financial resources to develop practical survey methods.

The Working Group has agreed to use a common framework and set of protocols (developed by the Volpe Center) for evaluating projects and programs within each community. Each pilot community will apply the framework to all projects, and select a sub-set of infrastructure and non-infrastructure projects in each community for detailed assessment, including through counts and surveys, to identify changes in travel behavior. Consistent data collection and evaluation are essential for synthesizing results across communities for similar types of projects and programs.

Chapter 7: Plans for NTPP Implementation and the Final Report to Congress

VALUE OF A DIVERSE SET OF COMMUNITIES

As described in Chapter 1, the pilot communities have a broad range of demographic characteristics – low and high density; home to major universities with populations without automobiles; self-contained small urban areas; and components of major metropolitan areas. Some communities have extensive existing nonmotorized networks and experience planning for nonmotorized transportation investments, including current nonmotorized plans with projects prioritized to meet projected community needs.

The diverse community characteristics and the variety of starting points for creating nonmotorized transportation networks should yield a rich range of results and experiences that can be applied in communities across the nation. NTPP results should provide valuable insights about traditional infrastructure projects forming the foundation of nonmotorized transportation networks and other innovative initiatives.

The pilot communities will document experiences in planning and project development that will be useful for a broad range of peer communities. The final report will summarize how each community worked with other institutions at policy and planning levels to implement nonmotorized projects.

PROJECT AND PROGRAM IMPLEMENTATION

Each of the four communities is well underway with NTPP implementation. Although placing NTPP infrastructure projects and educational and promotional programs into use quickly in each pilot community has been challenging, it is essential to demonstrate results. Some communities have selected the full set of projects and programs to be implemented under NTPP, while others will conduct additional calls for projects and programs.

COMMUNICATIONS AND INFORMATION SHARING

Existing mechanisms for the sharing of information among the communities has resulted in significant NTPP efficiencies and shared knowledge among the communities. The Working Group's e-mail exchanges, biweekly conference calls, annual face to face meetings, and the activities of the evaluation subgroup will continue and be modified, as necessary, to strengthen the results of evaluation. The Working Group will continue to serve as an important forum for pilot community representatives to share effective practices among their peers.

NTPP EVALUATION AND THE FINAL REPORT TO CONGRESS

As stated in Section 1807(b) of SAFETEA-LU, the purpose of NTPP is "to demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load, and represent a major portion of the transportation solution, within selected communities." The final report to Congress is due by September 30, 2010.

FHWA and the pilot communities anticipate that all NTPP projects will not be fully implemented by September 30, 2010. Realizing the benefits of these projects may require additional time for users to become accustomed to them. The timing of project implementation affects the selection of projects that lend themselves to collection of "before" and "after" data over a long enough period to identify changes in travel behavior.

The University of Minnesota conducted the Phase 1 survey from September 2006 – January 2007, to establish a community-wide baseline of travel behavior in each of the communities and one control community. The results are summarized in Chapter 5. The Working Group's NTPP evaluation plan calls for the University of Minnesota to conduct the final "bookend" or "after" survey from September 2010 – January 2011. The survey results will be used to identify changes in travel behavior in the pilot communities over the course of NTPP.

Depending on the number and scope of NTPP projects fully implemented by 2010, FHWA believes it is premature to decide whether it is better to initiate the survey in September 2010 or possibly September 2011.

FHWA and the Working Group also realize 2010 Census data would be useful in assessing NTPP results across the pilot communities, and in relation to other demographic and travel trends in urban areas nationwide. Census data will not be available in time to be used for the analysis in the report to Congress by the September 30, 2010 deadline.

Ultimately, FHWA wants to ensure the best data and information is available to complete a thorough analysis and provide meaningful results to meet the purpose of NTPP. FHWA will continue to work with the pilot communities and the Working Group to implement NTPP and refine the evaluation plan. FHWA will report to Congress on the preliminary final results of NTPP by the September 30, 2010 deadline, followed by a report with the final results at a later date. When submitting the 2010 report, FHWA will advise Congress of plans to conduct the survey, complete the final evaluation of the NTPP, and report the results to Congress.

Appendix A: Statutory Language

SEC. 1807. NONMOTORIZED TRANSPORTATION PILOT PROGRAM

(a) Establishment- The Secretary shall establish and carry out a nonmotorized transportation pilot program to construct, in the following 4 communities selected by the Secretary, a network of nonmotorized transportation infrastructure facilities, including sidewalks, bicycle lanes, and pedestrian and bicycle trails, that connect directly with transit stations, schools, residences, businesses, recreation areas, and other community activity centers:

(1) Columbia, Missouri.

(2) Marin County, California.

(3) Minneapolis-St. Paul, Minnesota.

(4) Sheboygan County, Wisconsin.

(b) Purpose- The purpose of the program shall be to demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load, and represent a major portion of the transportation solution, within selected communities.

(c) Grants- In carrying out the program, the Secretary may make a grant of $6,250,000 per fiscal year for each of the communities set forth in subsection (a) to State, local, and regional agencies that the Secretary determines are suitably equipped and organized to carry out the objectives and requirements of this section. An agency that receives a grant under this section may suballocate grant funds to a nonprofit organization to carry out the program under this section.

(d) Statistical Information- In carrying out the program, the Secretary shall develop statistical information on changes in motor vehicle, nonmotorized transportation, and public transportation usage in communities participating in the program and assess how such changes decrease congestion and energy usage, increase the frequency of bicycling and walking, and promote better health and a cleaner environment.

(e) Reports- The Secretary shall submit to Congress an interim report not later than September 30, 2007, and a final report not later than September 30, 2010, on the results of the program.

(f) Funding-

(1) AUTHORIZATION OF APPROPRIATIONS- There is authorized to be appropriated to carry out this section, out of the Highway Trust Fund (other than the Mass Transit Account), $25,000,000 for each of fiscal years 2006 through 2009.

(2) CONTRACT AUTHORITY- Funds authorized to be appropriated by this section shall be available for obligation in the same manner and to the same extent as if the funds were apportioned under chapter 1 of title 23, United States Code; except that the Federal share of the cost of the project shall be 100 percent, and the funds shall remain available until expended and shall not be transferable.

(g) Treatment of Projects- Notwithstanding any other provision of law, projects assisted under this subsection shall be treated as projects on a Federal-aid system under chapter 1 of title 23, United States Code.

Appendix B: Congressional Conference Report

SEC. 1807. NONMOTORIZED TRANSPORTATION PILOT PROGRAM

House Bill

Sec. 1122(b).
This section establishes two new programs--a Safe Routes to School Program and a Nonmotorized Transportation Pilot Program.

Subsection (b) establishes a Nonmotorized Transportation Pilot Program to construct a network of nonmotorized transportation infrastructure facilities in four communities to demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load. This program is designed to develop the statistical information necessary to properly evaluate the impact of investments in nonmotorized travel and increases in pedestrian and bicycle trips on congestion, energy usage, clean air and public health. It recognizes that only complete, comprehensive and connected networks of nonmotorized transportation facilities will provide the opportunity for the pedestrian and bicycle usage needed for the measurement of impacts.
In making grants, the Secretary may select public agencies that are suitably equipped and organized to carry out the requirements of this subsection. An agency that receives a grant under this subsection may work with and provide grant funds to a nonprofit organization to assist in carrying out the program.

Senate Bill
No comparable provision in Senate bill.

Conference Substitute
The Conference adopts the House provision with a modification to name four communities to carry out the pilot program. The Minnesota Department of Transportation shall provide funds for the Minneapolis nonmotorized pilot program grant to Transit for Livable Communities.

Appendix C: Nonmotorized Transportation Pilot Program Working Group

MEMBERS

Aaron Brault, Sheboygan County
Steve Clark, Transit for Livable Communities (Minneapolis/St. Paul)
Ted Curtis, City of Columbia, Missouri
Andrew Dannenberg, Centers for Disease Control and Prevention
Dan Dawson, Marin County
Rob Draper, Federal Highway Administration
Mary Ebeling, Sheboygan County
John Fegan, Federal Highway Administration
Billy Fields, Rails-to-Trails Conservancy
Marianne Fowler, Rails-to-Trails Conservancy
Franz Gimmler, Rails-to-Trails Conservancy
Deb Hubsmith, Marin Bike Coalition
William Lyons, USDOT/Volpe Center
Joan Pasiuk, Transit for Livable Communities
Theresa Perrone, USDOT/Volpe Center
Benjamin Rasmussen, USDOT/Volpe Center
Jill Stedem, City of Columbia
Craig Tackabery, Marin County
Barb Thoman, Transit for Livable Communities
Sean Wesener, Sheboygan County

Addendum for the Interim Report to Congress on the Nonmotorized Transportation Pilot Program SAFETEA-LU Section 1807

Since the interim report to Congress was issued, the four communities involved in the pilot program have provided an update on their projects. These updates are presented below:

- On page 13, there were two corrections to Table 1.3. The correct information is below:

	City of Columbia	Marin County
Automobile Vehicle Miles Traveled[11]	831,470,000	2,223,546,818

- Footnote 11 on page 14 should read:
  - Marin County: Metropolitan Transportation Commission projected average weekday VMT for 2007. Average weekday data has been annualized to arrive at estimated average annual VMT. Minneapolis data are from MnDOT (2001), and include all VMT in Anoka, Hennepin, and Ramsey Counties. Sheboygan County: Wisconsin State DOT (2005). Columbia: City of Columbia, MO (2005), average daily VMT for the Columbia Urbanized Area (UA) has been annualized to estimate annual VMT.

- There were several corrections for the City of Minneapolis and Sheboygan County portions of Table 2.1 on page 16. The correct information is below:

	City of Minneapolis	Sheboygan County
Status of Plans for Projects	• $7.3M programmed as of spring 2007	o County's Comprehensive Pedestrian and Bicycle Plan identifies nonmotorized priorities
Approach to Management	o "Transit for Livable Communities" manages NTPP, advised by "Bike-Walk Advisory Committee" (B-WAC) o 3 B-WAC subcommittees (Planning; Communications; and Facilities and Operations)	o Joint Resources & Transportation Committee of the County Board of Supervisors oversees program o Citizens Advisory and Technical Committee (CATC) provides guidance
Existing Bike/Ped Facilities	SHARED-USE PATHS: **57 MI** STRIPED BICYCLE LANES: **38 MI** SIDEWALKS: **1841 MI**	SHARED-USE PATHS: **35.5 MI** STRIPED BICYCLE LANES: **1.75 MI** SIDEWALKS: **414 MI**
Project Mix	o 25 infrastructure projects o 8 planning projects o 3 promotional projects	o 20 infrastructure projects o 5 promotional or educational projects o 2 planning studies

Project Selection Criteria	o Points-based system developed by advisory committees	o Developed by Staff, CATC and approved by Joint Resources Committee
Leveraged Funds / Prospects for Leveraging Funds	o N/A	o STP-Urban, STP-Rural, CMAQ and CHIP were used to fund Phase 1 bicycle/ pedestrian facilities of a three phase project. NTPP funds have been allocated for Phases 2 & 3. State partnership for a SRTS project, and possible leveraging of funds w/ CDC for data collection and subsequent studies

- On page 27, the title of Table 2.4 should read "Sample of Minneapolis' Projects."
- On page 30:
    - The text under Figure 2.4 should read: "Among other accomplishments, Staff and the CATC finalized its project selection criteria, which were approved by the JRTC. This is a crucial step in setting up an equitable process to review proposals."
    - The reference to the County's Pedestrian and Bicycle Comprehensive Plan 2025 should instead read County's Pedestrian and Bicycle Comprehensive Plan 2035.
- On page 31, the last three bullet items under the paragraph that begins, "Five projects are especially innovative…" should read:
    - Implementing the countywide "Walk to School Initiative" two times per year (i.e., one in spring and one in fall). The City of Sheboygan Falls School District recorded that almost half of the elementary school students participated in the first Walk to School Day. The Village of Kohler held a concurrent event attracting a 99% participation rate. Over 2,200 children and roughly 400 adults have participated thus far in the two events (Education/Promotion).
    - The County Planning and Resources Department has sponsored bike corrals at a number of community events. In the summer of 2007 over 400 cyclists participated (Education/Promotion).
    - Comprehensive build-out of the City of Sheboygan Falls bicycle/pedestrian network. Especially innovative, are two road diet projects included in the plan (Infrastructure).
- On page 31, Table 2.5 for Sheboygan's Projects to Date should read:

Project Type	Project	Status
Infrastructure	o Bike rack installation at County facilities as well as countywide bicycle parking initiative for other	All projects

	destinations (i.e., commercial areas, churches, schools, parks, etc.) o Town of Sheboygan bicycle/pedestrian facility on Mueller Road o City of Sheboygan bike racks on buses o City of Plymouth sidewalk construction on Eastern Avenue and Highland Avenue o Village of Howards Grove sidewalk construction and bike lane striping on Millersville Road between Elk Street and Highway 32 o Village of Oostburg sidewalk on north side of school district campus from 6th to 8th Street o Countywide bike lane striping initiative for urban areas o Paved shoulders on County Highway A/J in the Village of Elkhart Lake o Paved shoulders on Sunset Drive in the City of Plymouth connecting the City with large employers including Sargento o Village of Random Lake/Town of Sherman pathways, paved shoulders, and sidewalks – eliminates school busing to surrounding neighborhoods o Sidewalks, pathways, and bike lane striping on Audubon Road and Mill Street in the Village of Howards Grove o Paved shoulders on CTH A connecting the Village of Howards Grove with Lakeland College o Paved shoulders on CTH PP connecting the City of Plymouth with new industrial park o Village of Adell sidewalk network updates o CTH O updates to include sidewalks, bike lanes, and paved shoulders o City of Sheboygan Falls Comprehensive build-out to include bike lanes, road diets, pathways, sidewalk gap updates, and signage o Village of Cedar Grove sidewalks and bike lanes on South Main Street – eliminates school busing to surrounding neighborhoods o Village of Cedar Grove pathway between new subdivisions and school campus – eliminates school busing to surrounding neighborhoods	are funded
Education / Promotion	o Village of Elkhart Lake Safe Routes to Schools o Bike to Work Week focusing on the city of Sheboygan, Sheboygan Falls, Plymouth, and the village of Kohler o Countywide “walk and bike to school days” (two events each year) o Association of Pedestrian & Bicycle Professional/League of American Cyclists Bicycle Friendly Community Workshops o WE Bike, etc. law enforcement training program	All projects are funded

Planning / Research / Policy	o Countywide planning for the Safe Routes to School program o Update of the comprehensive pedestrian and bicycle plan to better enable Sheboygan County to plan for the programs and projects that move forward as part of the NTPP. The plan extends past the end of the NTPP to help the county continue to enhance its pedestrian and bicycle programs well into the future.	Funded

- On page 46, Footnote 11 should be removed.

Updates related to Spokane, WA, the comparison site:
The original report included values for the City of Spokane, WA instead of values for Spokane County. The updates listed below provide updates with the values for Spokane County.

- In Table 1.1 on page 5, the values for Spokane in the original report were for the City of Spokane. They should have presented the values for Spokane County. The updated values are below:

	Spokane (Control)
Geographic Area (sq mi)	1764
Persons per sq mi	241.3
Total	425,684
% enrolled in college or grad school	7.2
Total population 25 and older	276,887
Less than high school	10.9
High school or equivalence	26.8
Some college, no degree	27.2
Associate or bachelors degree	26.4
Grad or professional degree	8.7
MEDIAN AGE	35.4
Total # of households	163,611
Less than $ 25,000	32.2
$ 25,000-49,999	32.1
$ 50,000-74,999	19.3
$ 75,000-99,999	8.5
$ 100,000 or more	7.9
Median household income (2006 $)[4]	$45,145
White (alone)	88.4
Black (alone)	1.3
Asian (alone)	2.1
Other race or multi-racial	4.1
Hispanic (any race)	3.1
Total # of workers 16 and over	191,195
Car, truck or van – drive alone	76.7
Car, truck or van – carpool	12.3
Public (includes taxi)	2.8
Walk	2.8
Other means	1.2
Worked at home	4.1
Mean travel time (minutes)	21.2
Bike commute (MSA)	0.57
Total # occupied units	175,005
Owner occupied	65.5
Renter occupied	34.5
Average household size	2.5
Households with own child under 18	34.7
Average number of vehicles per household (owner-occupied units)	1.6
Average number of vehicles per household (renter-occupied units)	1.3

- Because of updates to the Spokane data in Table 1.1, there were updates for Figures 1.1, 1.2, 1.3, 1.4, , and 1.5. These figures are presented below:

Figure 1.1: Population Density (Persons per Square Mile)

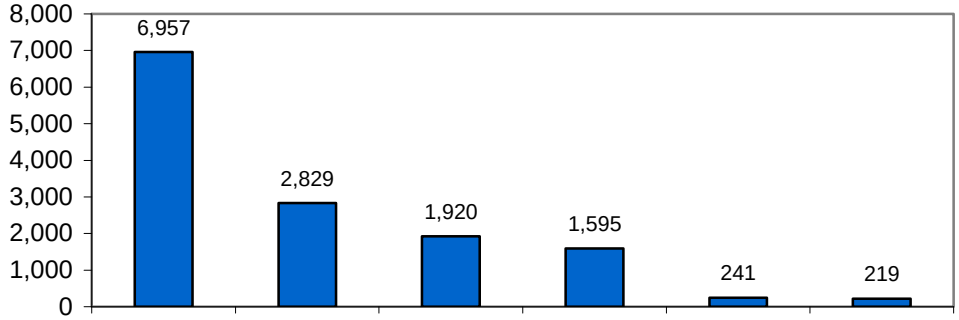


Figure 1.2 Educational Attainment for Population Age 25+

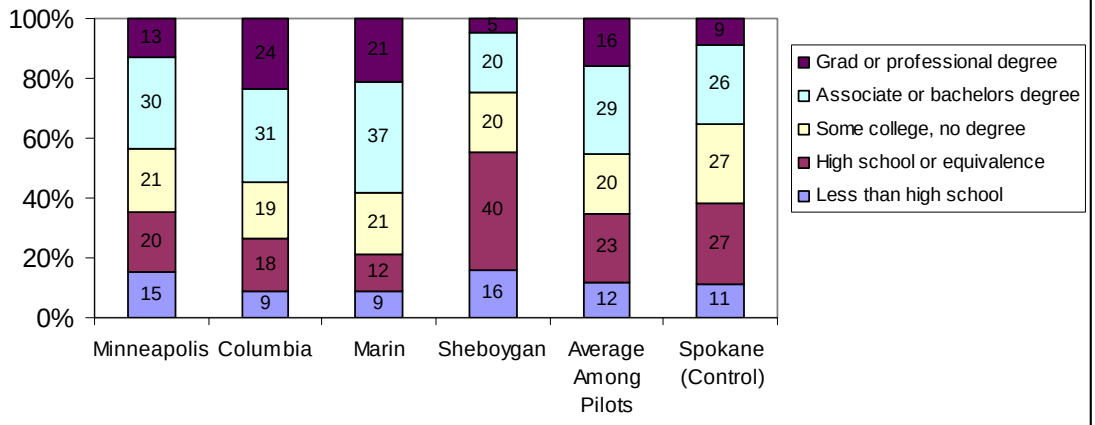
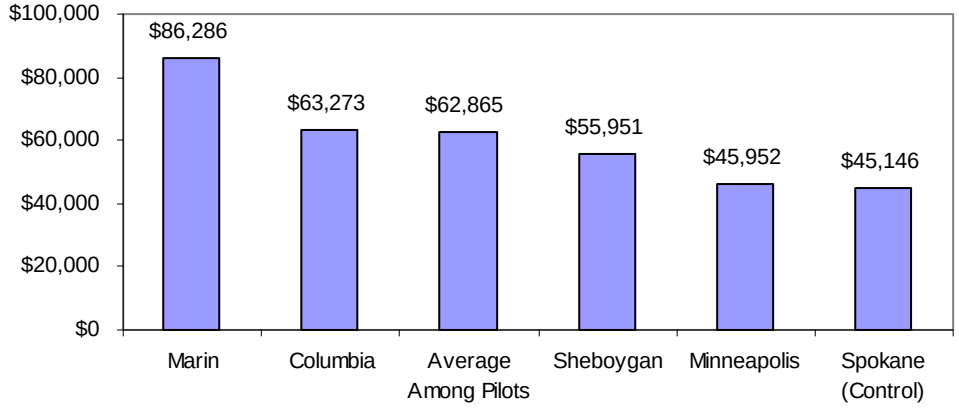
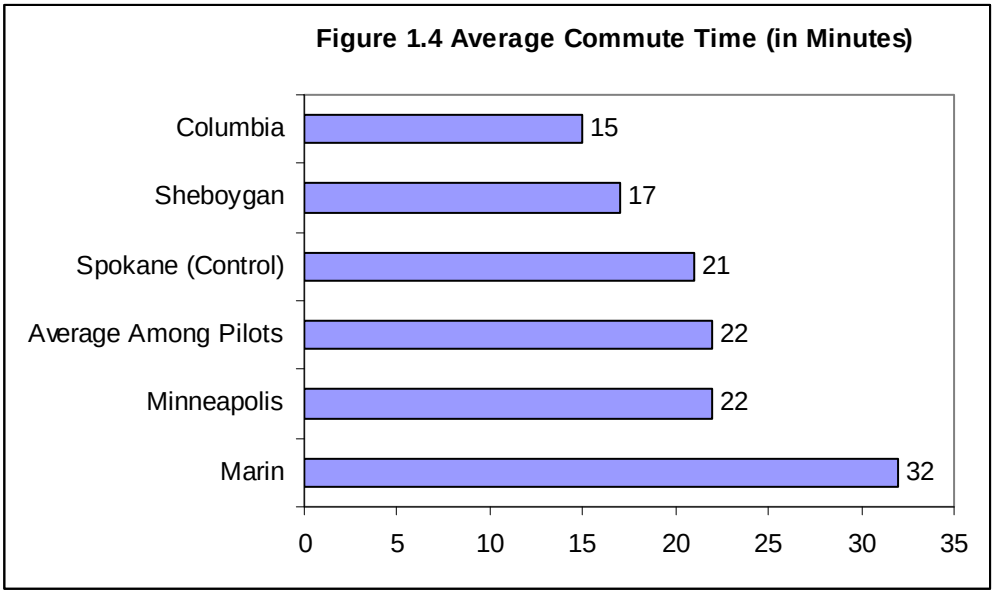
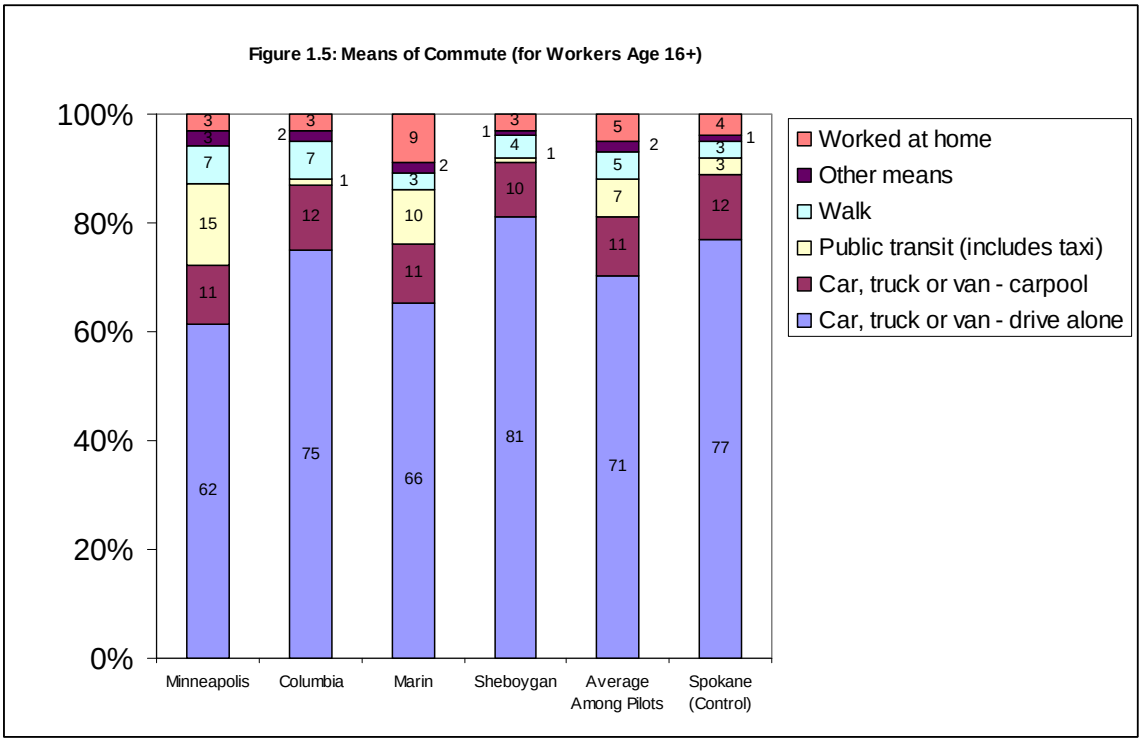


Figure 1.3: Median Household Income (in 2006 dollars)







- In Table 1.3 on page 13, the Average Daily Trips by pedestrians in Spokane should be 2.0. The total annual estimated reduction in auto travel due to bicycling and walking (in miles) should be 35,635,777.

- In Table 5.4 on page 49, the average for Spokane should be 35,635,777.