

Chapter 2 SUMMARY OF CURRENT CONDITIONS

"For the city bike to catch on we need a revolution in our society's infrastructure. Right now a city rider needs to be a road warrior, and the bike needs to be cheap and ugly so it won't get stolen. That's not a bike-friendly culture."
- Gary Fischer, Founding Father of Mountain Bikes

CYCLING ACTIVITY

It is difficult to document cycling activity, particularly for transportation purposes, as there is no regular program for counting bicycles as with motor vehicles. Available data does include the following:

Decennial Census – Journey to Work

The 2000 Census¹ documented mode of travel for work trips including bicycle. The specified mode is that used most often for the reference week. Although the reference week was the last week of March, when weather conditions may not be favorable to cycling, the Census nonetheless recorded 1,164 bicycle commuters (0.13 percent of the total commuters) for the eight county OKI region. Numerically, this represents a 40% increase over 1990 (832). The 1980 count of bicycle commuters was 784, so there was a 6% increase by 1990. Despite this increase in bicycle commuting, the proportional share of bicycle commuters, 0.1%, has not significantly changed over this time because of the increase in the total number of commuters. Within the City of Cincinnati, 0.2% of the commuters traveled by bike in 2000. The largest concentration of bicycle commuters in both number and percent share, around 3%, is the Oxford / Miami University area (the census sampling does not include dormitory population). Nationally, the percent of bicycle commuters surveyed in the decennial census has been stable over the past three censuses: 1980 – 0.5%, 1990 – 0.4% and 2000 – 0.4%. However, over this time there has been a 20% increase in the number of bicycle commuters.

US Department of Transportation

The U.S. Dept. of Transportation, National Highway Traffic Safety Administration prepared the 2002 National Survey of Pedestrian and Bicyclist Attitudes which reported that 27.3% of the population 16 or older rode a bike at least once in the 30 days preceding the survey. Applying this rate to the 2000 OKI population provides an estimated 413,000 riders. The same survey found that 34% of the males and 21.3% of the females biked, and 27.8% of the non-Hispanic white, 22.5% of the non-Hispanic black and 29.4% of the Hispanic population biked.²

The U.S. Department of Transportation, Bureau of Transportation Statistics periodically surveys households and individuals regarding trips of all types taken on both a daily basis, and for long distance travel. The National Household Travel Survey (NHTS) was last taken in 2001 and, at the national level, provides data for a variety of trip purposes by mode of travel. For lack of local data, the following findings in Table 2.1 for daily trips may be considered representative of local patterns³ Also, from the NHTS:

- 88% of persons 15 years of age and over are licensed drivers.

- On the average, households have 1.8 drivers and 1.9 personal vehicles.
- 8% of the households have no personal vehicle (OKI: 9.8% of households from the Census).
- Individuals average 4 trips per day totaling 40 miles.
- Walking was the second most frequent mode of travel (9%) after personal vehicles (87%). Bicycle trips were 0.9% of the total (last).
- 45% of daily trips by all modes were for personal and family reasons, 15% were commuting to work.
- 0.48% of the work trips were by bicycle (OKI: 0.13% from the 2000 Census).

Figure 2.1 presents NHTS daily travel data for trip purpose by mode of travel. This shows how selected modes compare for different types of trips. Bicycling trips, shown to comprise nearly 0.9% of all trips, are primarily for social and recreational purposes (53%) followed by visiting friends and relatives (15%), and family/personal business (9%). The large recreational component likely reflects cycling for physical fitness. Eight percent of all cycling trips are to go to or from work, while 0.5% of all trips to or from work are by bike. To or from work was the fourth most common trip purpose for both car/truck (16%) and bike (8%). The dominance of car/truck travel, 87% of all trips, is shown in the similar percentage distribution in the trip purposes by all modes.

Figure 2.1 2001 National Household Transportation Survey
(travel day person-trips in millions/selected trip modes)

Trip Purpose	Walk		Bicycle		Local Transit		Car/Truck		Other Modes		All Modes	
	#	%	#	%	#	%	#	%	#	%	#	%
To/From Work	1,790	5.1%	290	8.2%	1,187	28.9%	55,674	15.8%	1,952	12.4%	60,893	14.8%
Work-Related												
Business	453	1.3%	17	0.5%	96	2.3%	9,666	2.7%	1,485	9.4%	11,717	2.9%
Shopping	4,714	13.3%	195	5.5%	694	16.9%	73,455	20.9%	657	4.2%	79,715	19.4%
Family/Personal												
Business	7,596	21.5%	304	8.6%	535	13.0%	84,999	24.1%	1,452	9.2%	94,886	23.1%
School/Church	3,508	9.9%	224	6.4%	600	14.6%	29,133	8.3%	6,755	42.9%	40,220	9.8%
Medical/Dental	250	0.7%	4	0.1%	271	6.6%	8,165	2.3%	173	1.1%	8,863	2.2%
Vacation	467	1.3%	72	2.0%	17	0.4%	1,906	0.5%	213	1.4%	2,675	0.7%
Visit												
Friends/Relatives	4,045	11.5%	520	14.8%	292	7.1%	26,805	7.6%	607	3.9%	32,269	7.9%
Other												
Social/Recreational	11,954	33.8%	1,874	53.2%	368	8.9%	59,678	16.9%	1,905	12.1%	75,779	18.4%
Other	341	1.0%	8	0.2%	21	0.5%	1,615	0.5%	265	1.7%	2,250	0.5%
N/A	214	0.6%	15	0.4%	33	0.8%	1,124	0.3%	275	1.7%	1,661	0.4%
Refused	5	0.0%	0	0.0%	0	0.0%	27	0.0%	7	0.0%	39	0.0%
All	35,326	100.0%	3,522	100.0%	4,114	100.0%	352,246	100.0%	15,746	100.0%	410,969	100.0%

Notes: "Car/truck" is the sum of Car, Van, SUV and Pickup truck assuming all are used as household vehicles. "Other modes" included in this table include Other truck, RV, Motorcycle, Commercial/charter airplane, Private/corporate airplane, Commuter bus, School bus, Charter/tour bus, City to city bus, Amtrak/intercity train, Commuter train, Subway/elevated rail, Street car/trolley, Ship/cruise, Passenger line/ferry, Sail/motor boat, Taxicab, Limousine, Hotel/airport shuttle, Other.

Rodale Press Survey

The most recent "Pathways for People" survey by Rodale Press was in 1995. Among their findings were that 37% of those surveyed had ridden a bicycle in the past year. Of those, 55% had not ridden in the previous month, and 12% had ridden 10 or more times. "Driving alone" was the primary means for travelling for work and errands, 76%, while bicycling was reported by 2%. Given the existence of "good facilities" for all modes, preferences changed to 56% driving alone and 6% would bike. Of those who have ridden a bike in the past year, those who would commute by bike sometimes or more often accounted for the following percents for these "good facilities": safe bike lanes – 39%, separate designated bike paths – 40%, showers and secure storage – 36%, and employer incentives – 36%. Respondents were also asked how often they rode in the last mild weather month. Of these, only 19% had not ridden, 22% rode once or twice, 16% three to four times, 10% five to nine times and 25% ten or more times. Nine percent had biked to work and, of those, 30% rode 10 or more days and another 25% three or four days a month.⁴

National Bicycle and Pedestrian Documentation Project

In 2006, OKI joined in the National Bicycle and Pedestrian Documentation Project, sponsored by the Institute of Transportation Engineers (ITE) Pedestrian and Bicycle Council. Its purpose is to establish a national database of bicycle and pedestrian count information collected with a consistent national count and survey methodology. These local counts are submitted to ITE along with a demographic and street or trail characteristic description to be used for national analysis.

OKI staff has conducted three count sessions at three locations in Cincinnati as well as counts at the Loveland trailhead of the Little Miami Scenic Trail. The street count locations were chosen on known routes for bicycle commuting. The Pete Rose Way counts were done east of Eggleston to count riders using Eastern Ave. The Clifton Ave. counts were taken at Good Samaritan Hospital to count commuters to UC. Madison Rd. (a signed bike route) was

counted just west of the O'Bryonville business center. The AM counts were done between 7:00 and 9:00 AM and the PM counts from 4:00 to 6:00. These are presented in Figure2-2.

The bicycle counts at these locations have been lower than expected, and new locations may be chosen for future counts.

Figure 2-2 ITE Bicycle and Pedestrian Counts

	Pete Rose Way	Clifton Ave.	Madison Rd.
September 2006			
AM bike	2	4	15
AM ped	9	68	29
PM bike	12	18	18
PM ped	41	116	71
May 2007			
AM bike	6	1	10
AM ped	21	79	28
PM bike	13	9	10
PM ped	32	127	41
September 2007			
AM bike	3	14	15
AM ped	31	157	36
PM bike	6	23	20
PM ped	21	145	149

Counts were also taken on the Little Miami Scenic Trail to supplement those taken by OKI for the 1997 Little Miami Trail Users study. That report estimated an annual total of around 170,000 users. No trail counts have been taken since then by OKI or the Ohio Department of Natural Resources, the trail management agency. The OKI counts were taken in the morning and afternoon peak periods on July 3, 2006. The 7-9 AM counts included 96 cyclists and 46 walkers. The 4-6 PM counts found 99 cyclists and 48 walkers. Counts were totaled for each fifteen minute interval and it was noted that counts increased during the morning period and decreased over the afternoon period indicating a peak in use midday. To check this, additional counts were taken between 12 noon and 2 PM on Saturday, September 16, 2006. These totaled 282 cyclists and 106 pedestrians. These counts were used to estimate the trail users from 10-noon and 2-4 PM to get an estimate of daytime users on a good weather weekend day. This estimate came to around 1,500 users / day. A second midday count was taken on July 4, 2007 and found 535 cyclists and 115 walkers, or 68% more than on September 16. An estimate of total July 4th users (good weather) of 2,500 was made by inflating the previous daily estimate by that percentage.

Cincinnati National Bike Month

The month of May is National Bicycle Month as designated by the League of American Bicyclists (LAB). A number of events are held to promote cycling for recreational and utilitarian purposes during the month. The Cincinnati Bicycle/Pedestrian Advisory Committee has held rallies on Fountain Square and collected commuter miles for cyclists in Cincinnati. When commuter registrations have been held, they typically attracted around 50 cyclists who reported a total of around 2,000 miles for bike-to-work week.

During the May 2007 Bike Month activities, a survey was issued to find out how Cincinnati cyclists use their bikes, where they ride, and how they view Cincinnati streets. The surveys were distributed during Bike to Work Week at locations including the Fountain Square rest stop, Findlay Market, Second Sunday on Main, Park and Vine and at the Sawyer Point Bike Rally. A total of 183 completed questionnaires were collected, 103 from men and 80 from women. Responses showed that 71% ride on unmarked streets, the predominant available facility. People could choose multiple places to ride, and 26% also ride on trails. Of the six trip purposes for riding, they ranked Recreation first, followed by Fitness, Running Errands, Commuting to work, Social, and Commuting to School. Regarding their confidence riding in the street, most respondents said that they are "Confident", 50%, or "Somewhat Confident", 34%. The remaining 16% reported "Not Confident" on the local streets. In general Cincinnati cyclists don't consider sharing the road a pleasant experience; only 9% consider the streets here as "Friendly". "Somewhat Friendly" was chosen by 52% and "Not Friendly" by 39%. Among those completing the bike to work questions, the average commuter has been commuting by bike for three years for an average of 3.2 days per week and 4.7 miles one way.⁵

Cincinnati Cycle Club Commuter Challenge

The Cincinnati Cycle Club (CCC) has encouraged its members to submit commuting miles in a competition with the Dayton Cycling Club. "Commuting" miles include those for utilitarian travel where a bike is used instead of a car. These include trips to work, school, shopping, friends and relatives and appointments. They do not include the CCC

recreational club rides. In 2007, thirty-six club members reported nearly 54,000 utilitarian miles. Primarily a touring club, the CCC also offers around forty-five scheduled recreational rides per month in the peak cycling season, plus four nationally advertised invitational rides per year. Current membership is around 1,000.

Crash Data

Bicycle/motor vehicle crash data for the OKI region over the past several years are presented in Table 2.3 "Bicycle/Motor Vehicle Crashes – Deaths and Injuries"⁶. The information on the number of deaths is insufficient to represent any trends. For the five years from 2002 to 2006, six bicyclists were killed in the four Ohio counties: one each in Butler and Warren Counties and four in Hamilton County. These deaths have been evenly distributed over the time period except for three fatalities in Hamilton County in 2006 of which two occurred in one crash. There was one Kentucky fatality in Kenton County in 2004. Generally, the incidents are proportional to the county population.

The injury statistics do show higher rates of cyclist injuries to all injuries for Campbell and Kenton Counties, 1.5% and 1.4% respectively compared to the regional average of 1.1%.

OKI obtained individual crash records from Ohio and Kentucky to analyze hazardous locations for the Regional Transportation Plan update. These records were sorted to create a file of crashes in the OKI region involving bicycles. The Ohio records were for 2005 and 2006, while those for Kentucky included 2002-2006. They totaled nearly 400 incidents. In general, these crashes mirror national characteristics in that most occurred at intersections (62%), in daylight, on dry pavement and straight roads. Ten percent occurred at driveways. While scattered throughout the region, they concentrate in the population centers such as Cincinnati (particularly Price Hill and Clifton), Hamilton and Middletown. Only 3 were found in Oxford, fewer than expected with the Miami University students. Crashes on major roads, including Beechmont, Dixie Highway, Glenway, Colerain and Hamilton Avenues indicate that cyclists use these roads and that safety improvements are needed.

Of the bicycle/motor vehicle crashes analyzed for the nation, most (53%) are the fault of motorists turning left or right in front of the cyclist, running a stop sign or opening a car door into the path of a cyclist. The most common cyclist faults are riding facing traffic, left turn from the right side of the road, rideout from a driveway, and running a stop sign or light. Overtaking crashes account for 8% of all collisions of which 5% were caused by the cyclist swerving in front of the car and 3% motorist inattention (didn't see the cyclist).⁷

Nationally, in 2006, the National Highway Traffic Safety Administration reported that bicyclist fatalities totaled 773 and an additional 44,000 were injured in traffic crashes. These figures represent 2% of both the total of all traffic fatalities and injuries. The number of fatalities has also been trending upward from 665 in 2002. The fatality rate per capita was seven times higher for men than women and the injury rate was five times higher. Of note is that alcohol consumption by the motorist or cyclist was a factor in 32% of the crashes resulting in a cyclist's death. Nationally, the percent of cyclist

fatalities to total traffic fatalities was 1.8% in 2006. By state, the rate for Ohio was 1.4%, for Kentucky 0.5% and Indiana 2.3% (highest was Florida at 3.9%).⁸

Figure 2.2 BICYCLE / MOTOR VEHICLE CRASHES – DEATHS AND INJURIES 2002-6

		Butler	Clermont	Hamilton	Warren	Boone	Campbell	Kenton	Dearborn	8 Co.Total
2002	All deaths	28	22	76	17	15	11	15	n/a	184
	Bicyclists	0	0	1	0	0	0	0	n/a	1
	Percent	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	n/a	0.5%
	All Injuries	4,458	2,459	10,934	1,820	1,030	669	1,435	n/a	22,805
	Bicyclists	43	10	150	17	5	11	27	n/a	263
	Percent	1.0%	0.4%	1.4%	0.9%	0.5%	1.6%	1.9%	n/a	1.2%
2003	All deaths	32	28	69	18	13	10	11	11	192
	Bicyclists	0	0	0	0	0	0	0	0	0
	Percent	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	All Injuries	4,324	2,508	10,975	1,830	1,184	640	1,340	557	23,358
	Bicyclists	55	18	107	13	4	11	20	2	230
	Percent	1.3%	0.7%	1.0%	0.7%	0.3%	1.7%	1.5%	0.4%	1.0%
2004	All deaths	32	25	67	16	15	12	16	9	192
	Bicyclists	0	0	0	0	0	0	1	0	1
	Percent	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.3%	0.0%	0.5%
	All Injuries	3,947	2,453	10,723	1,884	1,132	661	1,306	524	22,630
	Bicyclists	43	15	138	10	6	8	19	2	241
	Percent	1.1%	0.6%	1.3%	0.5%	0.5%	1.2%	1.5%	0.4%	1.1%
2005	All deaths	39	28	61	21	18	11	15	5	198
	Bicyclists	0	0	0	1	0	0	0	0	1
	Percent	0.0%	0.0%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%	0.5%
	All Injuries	3,953	2,155	9,586	1,815	1,065	570	1,340	506	20,990
	Bicyclists	41	12	121	14	7	9	15	1	220
	Percent	1.0%	0.6%	1.3%	0.8%	0.7%	1.6%	1.1%	0.2%	1.0%
2006	All deaths	40	15	62	10	19	7	13	10	176
	Bicyclists	1	0	3	0	0	0	0	0	4
	Percent	2.5%	0.0%	4.8%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%
	All Injuries	3,940	2,181	8,952	1,790	1,025	604	1,211	454	20,157
	Bicyclists	50	12	100	15	6	9	13	1	206
	Percent	1.3%	0.6%	1.1%	0.8%	0.6%	1.5%	1.1%	0.2%	1.0%
Total	All deaths	171	118	335	82	80	51	70	35	942
	Bicyclists	1	0	4	1	0	0	1	0	7
	Percent	0.6%	0.0%	1.2%	1.2%	0.0%	0.0%	1.4%	0.0%	0.7%
	All Injuries	20,622	11,756	51,170	9,139	5,436	3,144	6,632	2,041	109,940
	Bicyclists	232	67	616	69	28	48	94	6	1,160
	Percent	1.1%	0.6%	1.2%	0.8%	0.5%	1.5%	1.4%	0.3%	1.1%

Source: Ohio Department of Public Safety, Traffic Crash Records System
 Kentucky Transportation Cabinet, Traffic Division
 Indiana Automated Reporting Information Exchange System (ARIES)

It should be noted that bicycle/motor vehicle crashes account for only 12% of bicyclist injuries based on emergency room visits. Most, 59%, are single vehicle crashes with no other object or person (falls, running off the road), and the remaining, 29%, collisions with fixed objects, other cyclists, pedestrians and animals.⁹

PLANNING ACTIVITY

Significant progress has been made toward implementing the recommendations of the 2001 Regional Bicycle Plan. Much of this progress can be attributed to national and regional events supporting bicycle use for both recreation and transportation.

At the national level, the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and its most recent successor, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005, have mandated state and regional planning requirements for incorporating bicycle and pedestrian modes into a multi-modal transportation system. As a result, state bicycle plans now exist for both Ohio and Kentucky, and OKI's transportation plan incorporates the recommendations of the separate bicycle and pedestrian plans. Supplemental guidelines issued by FHWA in 1999 have further emphasized the need to accommodate bicyclists and pedestrians in all highway projects (completing the streets).

This legislation has also provided funding for non-motorized modes through conventional highway and transit grant programs as well as categorical funding under the Transportation Enhancement program. Available funding has had a significant impact on the ability of local implementing agencies to get bicycle facilities built.

At the regional level, we have benefited considerably from having the Little Miami Scenic Trail within the region. This state developed rail-to-trail shared use path, which opened in 1984, has been very successful in stimulating interest in bicycling and bicycle facilities. Examples include other long distance trails such as the Great Miami River Trail to Dayton, connecting trails such as the Lebanon Connector and the Miami 2 Miami Connection, and numerous community trails included in residential developments in Butler, Warren and Boone Counties. It is the intent of this plan's goal "To provide a safe convenient and appealing bicycling environment", that cyclists who ride these trails for recreational use will make the transition to cycling the streets for transportation purposes.

Numerous local units of government in the region have developed their own bicycle plans or have included these facilities in overall transportation or land use plans. It is OKI's role to work with these communities as a resource for bicycle and pedestrian recommendations, to assist with project funding as a component of highway improvements or as independent trail projects. The recommendations of local plans for on-road and separate trail facilities, are included in the OKI regional bikeway system where they have independent regional significance or function as a part of the regional system.

Summary of Progress

The 2001 bicycle plan contained over seventy recommendations, many of which involve long term processes. In the past six years, significant progress has been made on most of them. Among these, notable accomplishments include:

- Continued support for bicycle planning at the regional level and growing support within local governments in terms of developing projects and support staff with specific bicycle and pedestrian responsibilities.
- The OKI *Strategic Regional Policy Plan* has been completed by the Regional Land Use Commission with the purpose of improving the integration of land use and transportation planning. Among the results was definite support for both land use patterns and transportation facilities that will better accommodate bicycle and pedestrian travel and to reduce auto dependency.
- Definition of priority cycling resources in the region including more detailed inventories of regional trail facilities and on-street facilities. As part of this update, a “primary shared road” network has been defined.
- A recommendation of the 2001 Bicycle Plan was to establish a means of disseminating information about regional bicycle issues and information to the regional cycling community. To implement this, the *OKI Bicycle E-Info News* was created. From August, 2001 through December, 2007, 72 issues have been electronically distributed. The distribution lists have grown to nearly 250 individuals.
- OKI created a 2004 promotional brochure for bicycling in the region, "*Wanna Bike?*", containing information about shared use paths, mountain bike trails and road riding in the region. It is distributed through bike shops, events and requests. It was updated as part of the FY 08 work program.
- OKI has continued to seek advisory assistance with bicycle and pedestrian planning through ad hoc committees as recommended in the 2001 plan. (This means for input was preferred over a permanent standing committee.) Temporary advisory committees were created for the Kentucky and Ohio Bike Route Guide updates, the Regional Pedestrian Plan, the Walkable Communities Workshops, and this update of the Bicycle Plan.
- OKI continues to offer technical training to local planners, engineers and officials with seminars on bicycle facility planning and programs including eight Walkable Communities Workshops in 2004, a Safe Routes to Schools program workshop in 2006, a presentation on the Portland, Oregon bicycle program in 2007 and annual presentations at the Traffic Engineering Workshops.
- Bike racks have been installed on all Metro and TANK buses since the last plan. The Metro fleet of 450 coaches was outfitted with racks in 2002, while TANK’s fleet of 110 coaches received the racks in 2006. (TANK keeps track of boardings by passengers with bikes, and counted 943 rack users in May, 2007.)
- Progress toward bicycle safety and education is being investigated through



participation in existing health and safety organizations. OKI staff attends meetings of such agencies in Hamilton and Butler Counties, and has assisted the Northern Kentucky Health District with the Safe Routes to School program.

- OKI participates in annual bike-to-work promotions during National Bike Month programs in May. The OKI Bike Route Guides are used by cyclists in finding commuting routes. Additionally, approximately 180 requests for bicycle information are filled annually.
- The recommendation of the previous plan to compensate OKI staff for the use of their bicycles for OKI business was implemented in the revision of the OKI Employee Handbook in 2005. The rate for bicycle miles is 10¢/mile.
- In 2002, OKI updated the three Kentucky county bike route guides, and in 2005, updated the four Ohio county maps. Since 2002, 221 sets of the Kentucky maps and 359 sets of the Ohio maps have been sold. The 1998 Cincinnati Bike Route Guide is programmed for updating in FY 09.
- OKI maintains a collection of bicycle plans, guidelines and safety videos. Additional materials have been added since the last plan update.
- Progress has been achieved regarding bridge and viaduct facilities. Generally, shoulders and wide right lanes have been incorporated in several new bridges including the new Central Bridge and the Hopewell Road bridge over the Little Miami River. The most significant success has been the restoration of the L&N Bridge between Newport and Cincinnati as a bicycle and pedestrian facility by state and private interests. The "Purple People Bridge" was dedicated in April 2003.
- Bicycle parking facilities at businesses and public facilities are encouraged as a means of promoting bicycle use for utilitarian trips. During 2004–2005, OKI carried out a pilot bicycle parking program under the CMAQ air quality program placing 35 bike racks and 2 bike lockers at 15 locations.
- Several recommendations from the 2030 Regional Transportation Plan have advanced through corridor studies since the last bike plan update. This planning work is similarly required to consider bicycle and pedestrian needs. The following documents the recommendation of the recent studies:



- Western Hamilton Co Transportation Study – Feb. 2007 The Western Study follows the bike plan recommendations with the statement: "Create Shared Roads and Shared Use Paths as Roads are Upgraded" and does not have specific facility recommendations. Additional attention to bike facilities includes general recommendations for bicycle connectivity.
- Uptown Transportation Study – Jan. 2007 Chapter 7 – Pedestrian and Bicycle Plan contains four specific bike facility recommendations for wide curb lanes:
 - Clifton Ave. from Ludlow Ave. to W McMillan St.
 - Jefferson Ave. from ML King Dr. to Corry St
 - E University St. from Burnet Ave. to Jefferson Ave.
 - E Daniels St. / Oak St from Burnet Ave. to Jefferson Ave.

The existing signed bike routes are to be retained with the new wayfinding plan along with adding Share the Road signage. Bicycle parking is recommended for new developments and at the transit centers.

- US 50 Gateway Study – Jan. 2007 Within the Dearborn Co. US 50 Gateway Study corridor is the Dearborn Trail. At the time of the study, it still had several gaps to be completed. In addition, the American Discovery Trail, southern route, follows US 50 and will do so until the gaps in the Dearborn Trail are filled in. The plan recommends completing the Dearborn trail and creating connections from the community.
- Dixie Fix – Aug. 2006 Chapter 6 – Pedestrian and Bicycle Accommodations contains general recommendations for Dixie Highway in Kenton Co. of additional space for cyclists, access management improvements, customer bike parking, “Share the Road” signs, encouraging bike use and promoting bike education. The plan also recognizes Dixie Highway as a designated Primary Bike Route in the Northern Kentucky Area Planning Commission’s Bike Plan for Kenton Co.
- Boone County Transportation Plan – 2005 While the automobile is the predominant mode of transportation in Boone County, this study recognizes the importance of developing alternative modes to produce a more efficient and better connected transportation system. The plan includes bikeway and pedestrian projects in Florence and Boone Counties.
- Southwest Warren County Transportation Study – Sept. 2005 Based on a review of existing bike facilities and proposed bikeways in OKI and local plans and studies, three additional bikeway/pedestrian facilities were proposed: the Maineville connector from Socialville Fosters Rd west of the Little Miami River to Maineville, the Hamilton Connector between Butler County and Mason Montgomery Rd, and the SR 741 connector between Bunnel and Hamilton Roads. Priority recommendations for Bethany Road improvements are to include bicycle facilities for the M2M Connection.
- North – South Transportation Initiative – 2004 The N-S Transportation initiative addresses freight and personal travel in the I-75 corridor from Kenton and Boone Counties, KY to Miami County OH north of Dayton. It includes I-75, the parallel railroad lines and regional roadways and local streets. No consideration of pedestrian or bicyclist needs were addressed in this study although it will impact these modes through the recommended capacity improvements affecting the arterial and local streets in the corridor.
- Northwest Butler Transportation Study – 2004 This study focuses on the US 27 and SR 73 corridors and the recommendations are highway oriented. The Purpose and Need statement mentions pedestrian safety issues around Miami University campus, however these are not addressed in the plan recommendations. The plan includes the Oxford Perimeter Path and recommendations for bike and pedestrian improvements in the Transportation System Management plan.
- Campbell County Transportation Plan – 2003 While this plan reviewed existing documentation and recommended facilities, including the Ohio River Path, Newport Riverwalk and Licking River Trail, it recommends

utilizing alternative modes for traffic improvement but does not include specific recommendations. Instead, a specific bicycle/pedestrian plan for Campbell County is recommended.

- Significant progress on the regional trails since the last plan includes the following. For more detailed information on these and other plans, see the Status Report on Trails and Greenways in the OKI Region in Appendix 1.



- Extension of the Little Miami Scenic Trail south from Milford, through Terrace Park to the Little Miami Golf Center on Newtown Rd in 2006.
- Construction of the Lebanon Connector Trail from downtown Lebanon to the Little Miami Scenic Trail near Kings Mill in 2005.
- A multi-jurisdictional feasibility study for the Miami 2 Miami Connection was managed by OKI and identified specific routes and facilities. Construction and planning for segments of the Connection are underway in Butler and Warren Counties.
- A similar multi-jurisdictional feasibility study was managed for the Williamsburg – Batavia Hike/Bike Trail in Clermont County. Funding has also been secured for a portion of the trail.
- There are active projects in Cincinnati, Anderson Township and New Richmond for the Ohio River Trail connecting Cincinnati to New Richmond along the Ohio River. Plans for Cincinnati’s Central Riverfront Park include the trail.
- A portion of the West Fork Mill Creek Trail was built in Woodlawn and this was subsequently extended north to Glenwood Gardens county Park.
- Extension of the Great Miami Trail from Montgomery County south through Franklin in Warren County in 2006 and additional segments built in Middletown and Fairfield in Butler County.
- Construction of the Dearborn Trail in 2006-7 through Greendale, Lawrenceburg and Aurora in Dearborn County.
- Anderson Township sponsored the development of the Five Mile Trail which opened in 2007. The two mile trail utilizes an old right of way journalized in the 1960s for the extension of Five Mile Road.
- The abandoned CSX rail corridor through Cincinnati’s Western Hills and Green Township has been lost to adjacent property owners and developers. It was long considered as a possible right-of-way for passenger rail transit and a trail.
- More bicycle improvements are being made to the roadway system with the addition of bike lanes, wide curb lanes and sidepaths to state, county and local roads in the region. Notable progress has been made by the Kentucky Transportation Cabinet under its 2002 bicycle and pedestrian policies. As part of this Bicycle Plan update, OKI inventoried these facilities for the first time. Surveys were sent to local government

engineering and planning offices to locate such facilities. These were then field checked by our staff and added to the OKI GIS street base map. The facilities are shown on the map in Figure 2.3 and tabulated by county in Figure 2.4 and listed in Appendix 7. In rural areas, shoulders are included for highway safety reasons which also benefit cycling and walking.

Figure 2-3 - OKI On-Street Bicycle Facilities

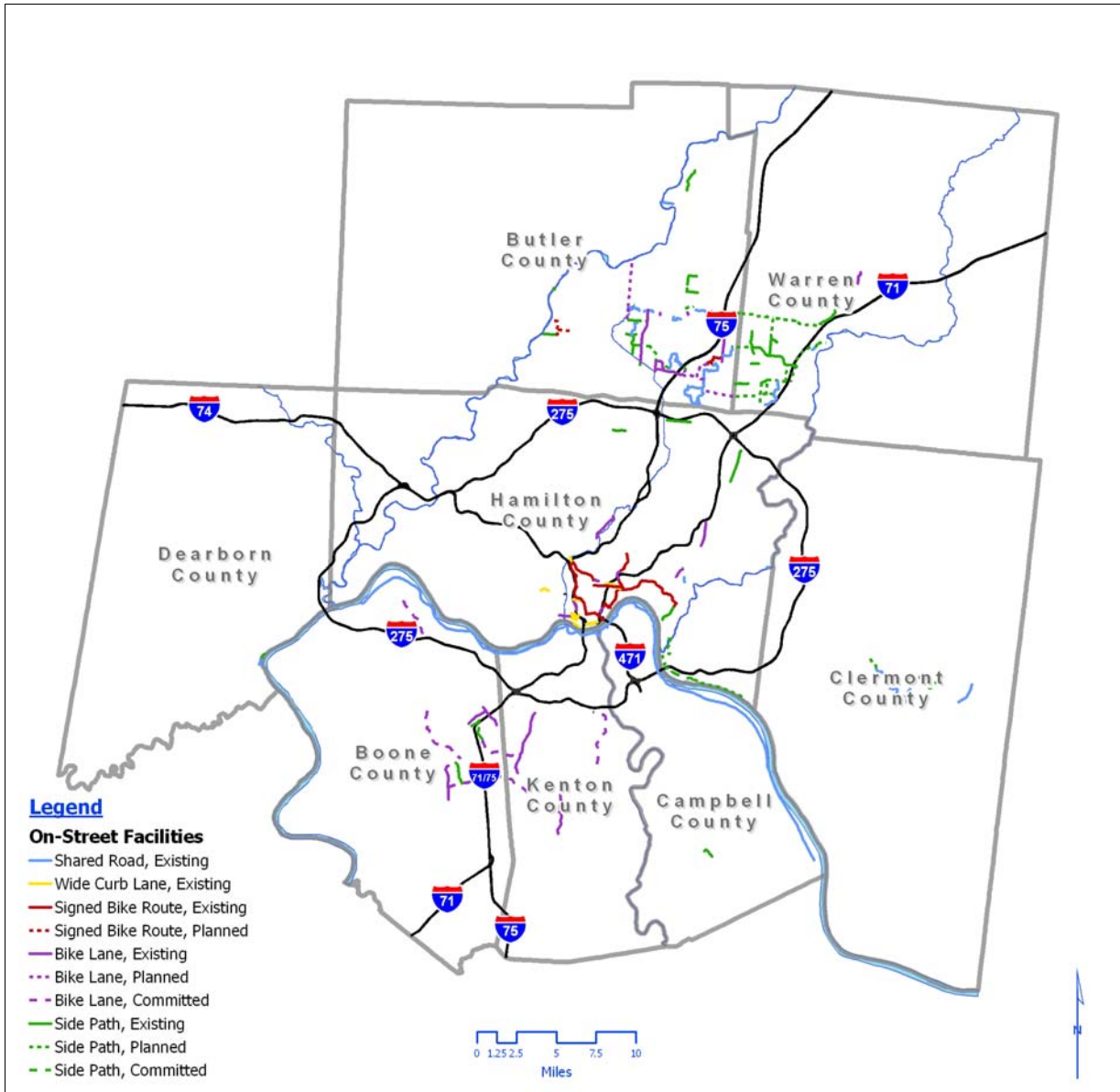


Figure 2.4 – Existing On-Street Bicycle Facilities

(miles)	Striped Bike Lanes	Wide Curb Lanes	Side Paths	Signed Routes
Butler	2.1	0	4	1.3
Hamilton	6.3	5.6	6.7	20.3
Warren	0.8	0	8.4	0
Boone	5.2	0	3.1	0
Campbell	0	0	0.8	0
Kenton	8.2	0	0	0
Dearborn	0	0	0.3	0

Transportation Improvement Program Projects

Transportation projects selected and approved for federal funding are listed in the regional Transportation Improvement Program or TIP, a schedule that identifies the timing and funding for each phase of a project including design, right of way, engineering and construction phases over successive four year periods. The TIP also includes a cooperative process for prioritizing the region’s projects selected for funding from the limited resources available. This process is carried out by OKI’s technical and prioritization committees. The TIP prioritization criteria awards points for several elements including “intermodal facilities integration” and “multimodal investment” which favor road projects that include bike lanes or transit facilities with bike parking.

The Complete Streets approach recommended in this plan, Appendix 2, encourages project applicants to comply with existing guidelines and recommendations to include the appropriate bicycle and pedestrian accommodations in their projects. The description of complete streets used for the policies is: “Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street.” While there are exceptions stated in the policies for not including them, not doing so requires a documented explanation.

Regarding the bicycle projects funded under the Transportation Enhancement (TE) program, in 1998, the Ohio Department of Transportation established an Urban Area TE program for the sixteen Metropolitan Planning Organizations in the state funding each in an amount equal to 10 percent of each MPO’s Surface Transportation Program funds. Thus OKI now has a direct role in funding projects requested by communities in the four Ohio counties of the region. TE projects funded through OKI’s Urban Area program are listed in Appendix 3 – Transportation Enhancements Project Status.

REGIONAL ISSUES AND BICYCLING

Land Use

There has been a growing awareness of the relationships between land use and transportation, including concern with the “sprawl” resulting from automobile dependent development. OKI’s 1993 transportation plan update, Managing Mobility: Year 2010

Regional Transportation Plan addressed this issue by calling for a regional commission on land use. Among the charges to the commission is the following:

“The commission would also adopt incentives which would encourage county and local land use policies to account for desired relationships between land use, transportation, and other supporting infrastructure. Policies would promote land use patterns consistent with plan objectives to minimize the need for new highway construction and foster travel by transit, bicycle, and walking.”¹⁰

In July 1997, the OKI Executive Committee was named as the Land Use Commission and directed the staff to work with local planning authorities toward defining regional land use policies that will be sensitive to the respective roles of OKI as the Metropolitan Planning Organization, and local governments as the authority for administering land use regulations. This charge was fulfilled with the adoption of the *Strategic Regional Policy Plan – Where do We Grow From Here*, (SRPP) in April, 2006.

Among the 101 policies is that stating “Local and regional investments in transportation facilities and services will support compact, pedestrian, bicycle and transit-friendly land uses, where appropriate, and facilitate travel demand management strategies.”

The SRPP is being implemented in two principal ways. First, considerable variation was found in the completeness of the local plans for administering growth. Also, many plans were out of date and some communities were lacking plans of comprehensive scope. To address these issues, OKI’s Regional Planning Department has prepared guidelines and model ordinances for preparing a comprehensive development plan that will address land use, public services (including transportation), and the fiscal resources for funding. The staff supports these documents with technical assistance in their use and review of the results.

Second, land use criteria have been added to the Transportation Improvement Program project application process for both highway and transit projects to support projects from communities that have complete and current comprehensive plans, and for which the project is consistent. For multi-jurisdictional projects, consistency with the respective plans is sought.

Fuel Costs

Related to the Land Use issue above is the extensive use of private automobiles that has somewhat been enabled by low gas prices. This facilitated the sprawling suburban development that has increased average daily travel over the years. As of 2001, when this Bicycle Plan was last updated, gas prices had trended below the average consumer price index (CPI) and averaged \$1.30/gallon. For many reasons, gas prices have climbed substantially in the past six years, and at a rate significantly faster than the CPI. As of December, 2007, at around \$3.00/gallon, gasoline was 30% above the average CPI for all items.¹¹

During this time, the popularity of high fuel consumption trucks and sport utility vehicles has persisted. Remedial measures have focused more on maintaining the supply of gas rather than conserving fuel. As it becomes apparent that the high cost of gas is

permanent, support for more energy efficient vehicles and land development patterns, as in “new urbanism”, may prevail. Fortunately, the OKI region has many older neighborhoods developed in the compact manner now regaining popularity. These cultural and economic changes will encourage more use of bicycling for neighborhood trips.

Air Quality

A basis for the increased support for non-motorized modes of transportation in current transportation planning programs is the link established between transportation and air quality by the federal Clean Air Act Amendments of 1990 and the Intermodal Surface Transportation Efficiency Act of 1991. Both call for the use of transportation control measures toward achieving the national ambient air quality standards and specifically identify human powered modes of travel, cycling and walking, for their potential to reduce emissions.



The nine counties in southwestern Ohio, northern Kentucky and southeastern Indiana that comprise the Greater Cincinnati urban airshed were classified as basic nonattainment under the eight-hour ozone standard in 2004. In addition, the area was classified as non-attainment of the particulate matter standard. More stringent ozone standards have reduced the attainment level from 80 to 75 parts per billion. County level attainment designations are expected in 2010 at which time attainment deadlines will also be announced. Non-compliance may affect future transportation funding and restrictions on businesses.

OKI’s Regional Clean Air Program works to publicize smog alerts when high ozone and particulate matter levels exist and recommend actions for individuals, companies and local governments to take in order to avoid increased pollution levels. OKI’s efforts include an aggressive media relations and advertising campaign to keep the clean air issue at the forefront of local radio, television and newspaper reporting; strategic event marketing activities aimed at educating a vast portion of the public; and partnerships to encourage alternatives to driving alone. Bicycling is among the alternatives that are promoted.

Substituting bicycle and pedestrian travel for motor vehicle trips will continue to offer potential for reducing mobile sources of pollution. Progress has been made toward improving the street system with bicycle facilities and supplementing it with a separate regional trail system. Additional needed steps are a marketing program to promote bicycle use and the means to forecast and estimate the impact increased use of non-motorized travel has on reducing vehicular emissions.

Towards this end, OKI prepared an estimate of pollutant emissions per mile for use in evaluating potential emissions for travel demand modeling in 2005. The rates in grams per mile are¹²:

Volatile Organic Compounds	1.23 g/m
Carbon Monoxide	12.46 g/m
Nitrous Oxides	2.20 g/m

In addition, Carbon Dioxide (CO²) emissions for automobiles are estimated at 1 lb./mile.

As an example, applying these rates to the 53,585 commuting miles recorded in 2007 by the Cincinnati Cycle Club, 27.7 tons of combined pollutants were averted through these efforts.

Personal Health

In the last ten years or so, bicycling has gained support from the public health sector in response to declining physical activity and soaring obesity rates. Most recent data from the Center for Disease Control on leisure time physical activity, 2004, showed that 30% of the adult population participates in regular leisure-time activity. Another 30% have some activity while the remaining 40% are inactive. Two-thirds of the adult population is overweight or obese including 32% of the population considered obese. Among children 6-11 years old, 19% are overweight as are 17% of adolescents 12-19. These trends have increased the incidence of heart disease, high blood pressure, diabetes and depression.¹³

Cycling is an excellent source of physical activity for improving personal health. Recreational cycling is becoming a more popular form of physical exercise, particularly along the bike trails. Bike commuting to work or school, and cycling for personal errands, provides productive ways to incorporate exercise into daily activities to achieve the recommended 30 minutes five times per week of regular sustained exercise.

¹ US Department of Commerce, Bureau of the Census, 2000 Census of Population and Housing.

² National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, 2002. National Highway Traffic Safety Administration (NHTSA) and Bureau of Transportation Statistics (BTS).

³ Highlights of the 2001 National Household Travel Survey, Bureau of Transportation Statistics, US Department of Transportation, 2003.

⁴ Pathways for People, Rodale Press from surveys by Parkwood Research Associates, 1995

⁵ Cincinnati Bicycle/Pedestrian Advisory Committee, OKI Regional Council of Governments, Bicycling in Cincinnati - 2007

⁶ Ohio Department of Public Safety, Traffic Crash Records System; Kentucky Transportation Cabinet, Traffic Division; Indiana Automated Reporting Information Exchange System.

⁷ Kenneth Cross, Bicycle Safety Education – Facts and Issues

⁸ National Highway Traffic Safety Administration, Traffic Safety Facts – Bicyclists and Other Cyclists, 2006, DOT HS 810 802

⁹ Bob Mionske, Bicycling and the Law, 2007

¹⁰ Ohio-Kentucky-Indiana Regional Council of Governments, Managing Mobility: Year 2010 Regional Transportation Plan, (Cincinnati, Ohio: OKI Regional Council of Governments, November, 1993) page 7-70.

¹¹ US Department of Labor, Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers (CPI-U), Seasonally adjusted US City Average, February, 2008.

¹² Andrew Reser, OKI Regional Council of Governments. Carbon dioxide emissions from US EPA Mobile6 model.

¹³ National Centers for Disease Control and Prevention, Physical Activity and Health – A Report of the Surgeon General, <http://www.cdc.gov/nchs/fastats/Default.htm>