CHAPTER 2: BICYCLING AND WALKING IN THE WASHINGTON REGION

Overview

Residents of the Washington region walk and bicycle at about the same rate as the nation as a whole, but slightly less than the average for the largest metropolitan areas. Among the ten largest metropolitan areas, the Washington-Baltimore region ranks eighth in terms of the number of people bicycling to work, and sixth in terms of the number walking to work. Tables 2-1 and 2-2 show the share of walking and bicycling trips to work for the ten largest metropolitan areas.

Walking and bicycling are declining as modes of transportation both in the Washington region and nationally. Nationally, 0.38% of American workers bicycled to work in 2000, and 2.93% walked. In 1990 0.4% bicycled to work, and 3.9% walked.

	Table 2-1 Pedestrian Commuting in the Ten Largest Metropolitan Areas	% Walk to Work
1	New York	5.55%
2	Boston	4.12%
3	Philadelphia	3.88%
4	San Francisco	3.25%
5	Chicago	3.13%
6	Washington-Baltimore	2.98%
7	Los Angeles	2.56%
8	Detroit	1.83%
9	Houston	1.62%
10	Dallas-Fort Worth	1.48%
	United States	2.93%

However, regional and jurisdictional averages conceal big differences at the local level. Bicycling and walking is concentrated in the core neighborhoods of the Washington region, especially areas near downtown D.C. and certain Metro stations. Walking is stable in those neighborhoods, and bicycling is growing.

Ethnicity, geography, income, age, and car ownership affect the decision to walk or bicycle to work. People living in the District of Columbia are far more likely to walk or bicycle to work than those living in Maryland or Virginia. People under the age of 35 or over the age of 65 are more likely to walk or bicycle, though the elderly mostly walk rather than bicycle. People living in households without cars are more likely to walk or bicycle than those that have one, and those living in households with only one car are more likely to walk or bicycle than those owning two. The middle class is slightly less likely to walk or bicycle than either the poor or the wealthy. Hispanics are more likely to walk or bicycle to work than any other ethnic group, while blacks are least likely

	Table 2-2: Bicycle Commuting in the Ten Largest Metropolitan Areas	% Bike to Work
1	San Francisco	1.12%
2	Los Angeles	0.63%
3	Boston	0.38%
4	Philadelphia	0.33%
5	Chicago	0.31%
6	Houston	0.30%
7	New York	0.30%
8	Washington--Baltimore	0.25%
9	Detroit	0.18%
10	Dallas--Fort Worth	0.14%
	United States	0.38%

to walk or bicycle.

Distance is a major barrier to commuter cycling, along with absence of safe routes, and lack of end-of-trip facilities such as showers and lockers. However, most commute trips that are short enough to be bikable or walkable are still taken by car. The average trip distance to transit or carpool is very short.

Transit and walking are interdependent, with 80% of bus passengers and 60% of metrorail passengers accessing the system on foot. Mode of access varies tremendously by metro station. Bicycling to transit is less important and varies greatly by metro station, with the lowest rates of bicycle access found east of the Anacostia river.

Future growth in walking and bicycling is likely to be concentrated in the urban core and portions of the inner suburbs, especially around transit stations, as those areas are redeveloped to accommodate projected job and population growth.

Jurisdictional Trends according to the US Census

The national trend towards less walking and bicycling also holds for the Washington Metropolitan Statistical Area. In 1990, 6633 people (0.3 %) biked to work on an average day in the Washington area and 85,292 (3.9 %) walked. In 2000, 7,532 people (0.3%) biked to work and 72,700 (3.1%) walked. It should be noted that the census numbers tend to undercount pedestrian trips, since a walk trip to transit is counted as a transit trip, not as a walk trip. Levels of bicycling and walking and trends vary by jurisdiction and by neighborhood. Charts 2-1 and 2-2 below show the changes in walking and biking to work by jurisdiction.

Chart 2-1: Percentage of Workers Walking to Work

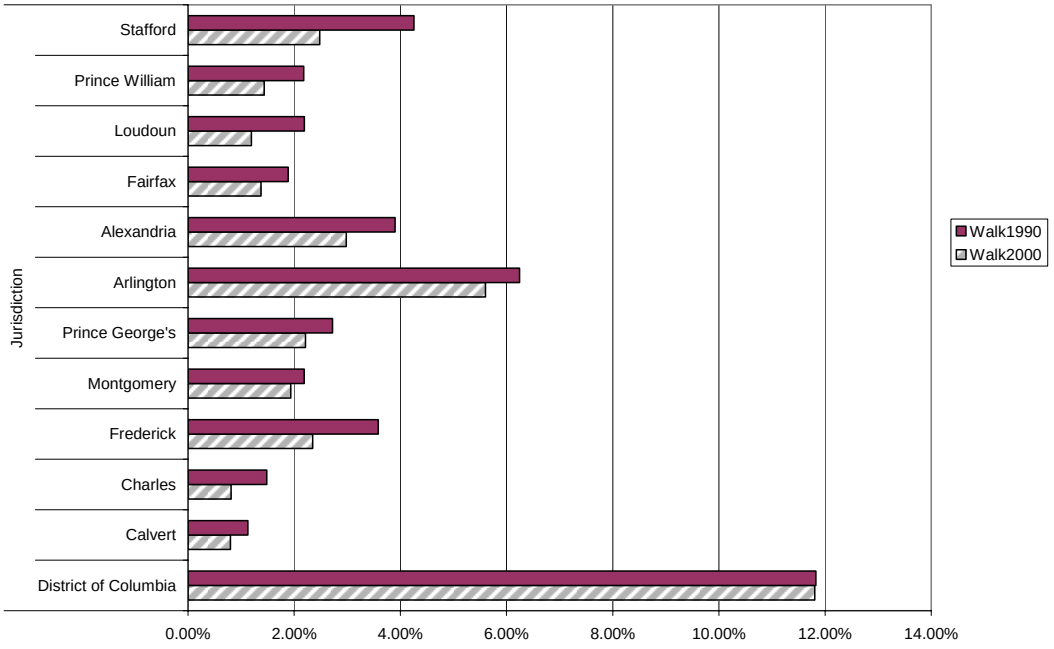
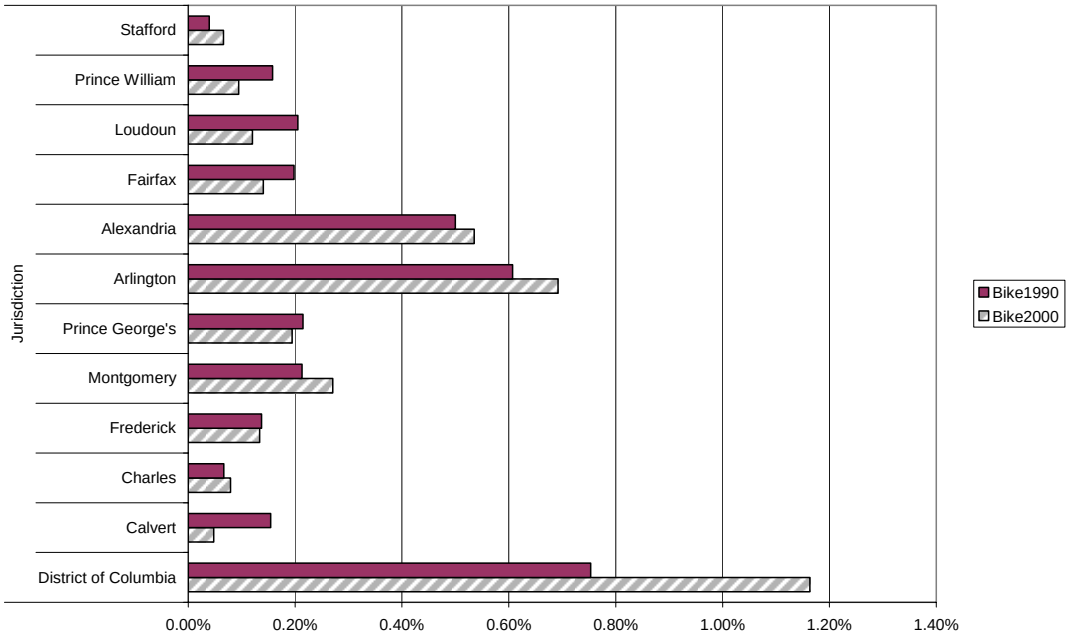


Chart 2-2: Percentage of Workers Biking to Work

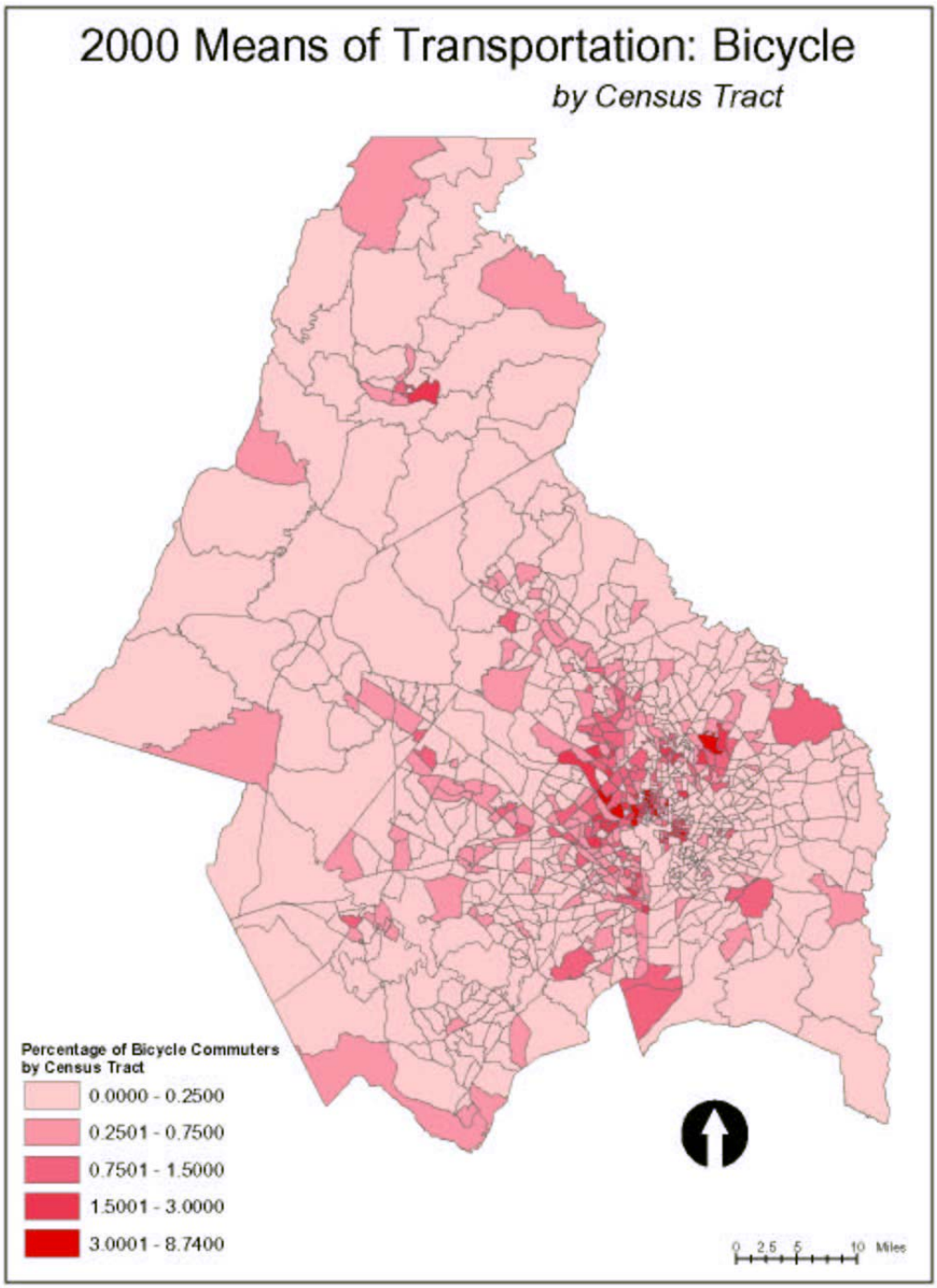


Generally, the urban core of the Washington region, consisting of the District of Columbia, Arlington, and Alexandria, has experienced modest losses in pedestrian mode

share and considerable gains in bicycling. The District of Columbia has maintained its pedestrian mode share for the journey to work, while increasing its bicycle mode share considerably. The outer suburban jurisdictions had very few people bicycling or walking to work in 1990, and that number fell further during the decade that followed.

Neighborhood Trends

Jurisdictional averages conceal tremendous variation by neighborhood in the amount of bicycling and walking. Figures 2-1 and 2-2 on page ? show the percentage of home-based work trips by bicycle and on foot for each census tract within the TPB member jurisdictions. Figures 2-3 and 2-4 show the same information for the census tracts inside the beltway. Figures 2-5, 2-6, 2-7, and 2-8 (will be added later) give the same information from the 1990 census. Census tracts with high levels of bicycling often also have bicycle facilities. Census tracts abutting major facilities such as the WO&D, the C&O, and the Mt. Vernon Trails tend to show higher levels of bicycling.


2000 Means of Transportation: Bicycle
by Census Tract
Percentage of Bicycle Commuters by Census Tract
0.0000 - 0.2500
0.2501 - 0.7500
0.7501 - 1.5000
1.5001 - 3.0000
3.0001 - 8.7400
0 2.5 5 10 Miles

Bicycling in the Metro Core

COG's cordon counts confirm the census data indicating a concentration of bicycling in the neighborhoods close to downtown D.C. and Arlington. COG periodically takes a count of vehicular traffic, including bicycle traffic but excluding pedestrian traffic, entering that area.

Bicycle traffic into the downtown metro core is growing rapidly, with bicycle traffic into the D.C. section of the metro core more than doubling from 1986 to 2002. The number of bicyclists entering the metro core within the District of Columbia has grown steadily from 474 in 1986 to 1,379 in 2002. The number of cyclists crossing the Potomac bridges grew from 317 in 1986 to 525 in 2002. Bicycle traffic into the Arlington section of the metro core increased from 409 to 645 bicyclists between 1999 and 2002, while Potomac bridge traffic declined slightly over the same period, indicating that more people are bicycling to destinations, probably employment, within Arlington in the morning. Table 2-3 shows metro cordon counts from 1986 to 2002, and Chart 2-3 shows the number of bicycles entering the D.C. section of the metro core from 1986 to 2002.

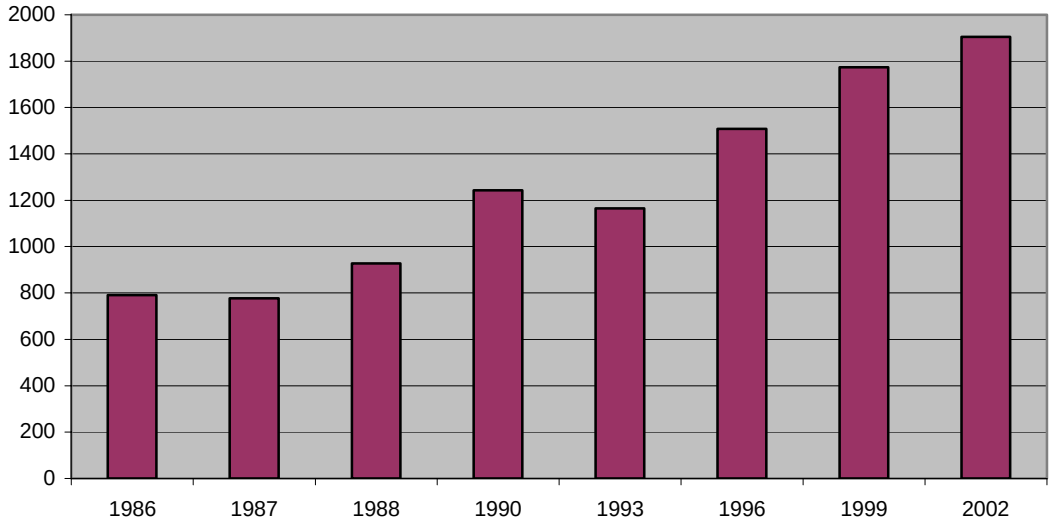
Table 2-3
2002 Metro Core Cordon Count
Inbound Bicycles and Outbound Bicycles (outbound 1999 and 2002 only)
1986 - 2002
6:30 - 9:30 A.M. and 3:30 - 6:30 P.M. (P.M. 1999 and 2002 only)

Locations	1986	1987	1988	1990	1993	1996	1999		2002	
							A.M. inbound	P.M. Outbound	A.M. inbound	P.M. Outbound
D.C. (Sectors 4-9)	474	470	568	771	799	920	1,152	1,025	1,379	1,113
Va. (Sectors 1-3)	N/C	N/C	N/C	N/C	N/C	N/C	409	565	645	425
Totals Crossing Cordon Line	- -	- -	- -	- -	- -	- -	1,561	1,590	2,024	1,538
14th Street Bridge	131	78	107	139	157	211	197	197	300	238
Memorial Bridge	49	124	146	219	120	232	220	104	104	143
T. Roosevelt Bridge	14	13	2	7	25	59	81	62	18	89
Key Bridge	123	92	104	106	64	86	124	93	103	92
Totals Crossing Potomac	317	307	359	471	366	588	622	456	525	562

N/C - not counted

Numbers in this table are not statistically significant when combined with other Metro Core Cordon Count data

Chart 2-3:
Bicycles Entering D.C. Section of the Metro Core



Bicycle traffic is also counted on the beltway cordon, including traffic on shared-use paths, but the a.m. volumes recorded are a fraction of the numbers entering the metro core. Table 2-5 below shows the bicycle volumes recorded crossing the beltway in 1995, 1998, and 2001.

TABLE 2-5
BICYCLE COUNT ON RADIAL TRANSPORTATION FACILITIES CROSSING THE CAPITAL BELTWAY

	Inbound Bicycle Traffic 6:30 - 9:30 A.M.		
Year	**1995**	**1998**	**2001**
Count	**220**	**263**	**214**

Demographic Characteristics of Pedestrian and Bicycle Commuters

Ethnicity, geography, income, age, and car ownership affect the decision to walk or bicycle to work. The best recent source of this demographic information on pedestrian and bicycle commuters in the Washington region is the 2004 Commuter Connections State of the Commute Survey.

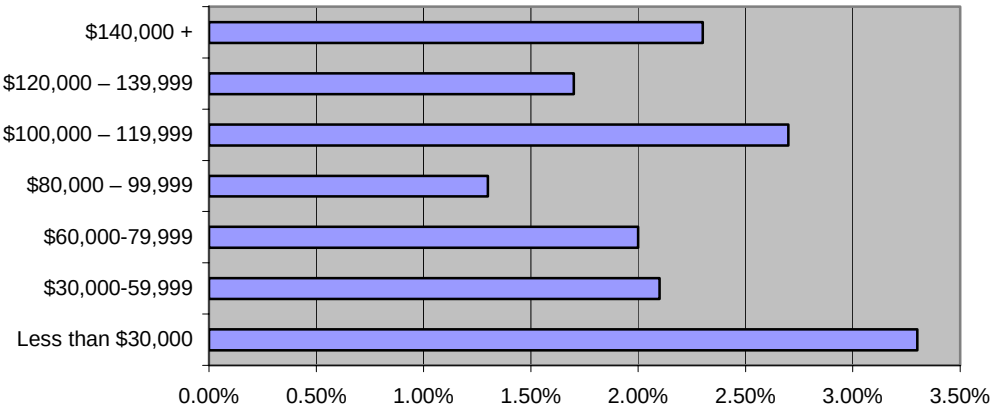
Walking and bicycling were not calculated separately for the subcategories of ethnicity, income, age, and state of residence due to sample size issues. All mode shares are for

primary commute mode, 3+ days per week. Walk/bike mode share varies by household income, state of residence, number of vehicles in the household, ethnicity, and age. Both the 2001 and the 2004 State of the Commute Surveys show lower mode share for walking and bicycling than does the 2000 Census, a discrepancy probably explained by differing methodologies.

A. Household Income

Chart 2-3 shows walking and bicycling commute mode share by income. Walking and bicycling to work are somewhat more prevalent among the low-income (less than $30,000 household income per year) than among the very high-income (more than $140,000 per year). Bicycling and walking are slightly more common at the top and the bottom of the income distribution than in the middle.

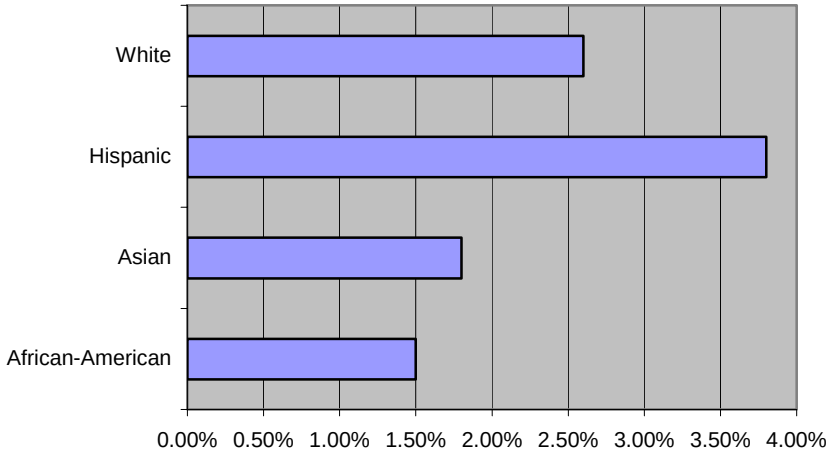
Chart 2-3: Walk/Bike Commute Mode Share by Annual Household Income



B. Ethnicity

Walk/bike commute mode share differs more by ethnicity than by income. Hispanics have the highest walk/bike mode share at 3.8%, African-Americans the lowest at 1.5%.

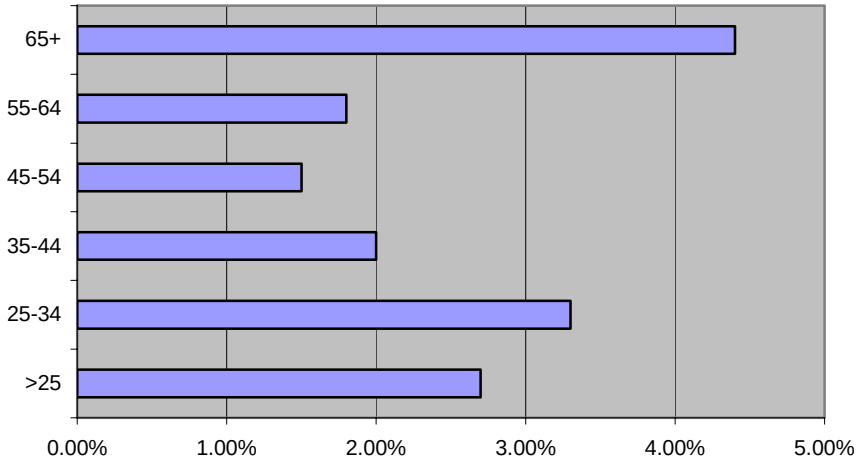
Chart 2-4: Walk/Bike Commute Mode Share by Ethnicity



C. Age

Chart 2-5 shows walk/bike commute mode share by age. People under 35 and over 65 are more likely to walk or bike to work than the middle-aged. Nationally the elderly have a much lower mode share for bicycling than for walking, so we can presume that most of the elderly are walking rather than bicycling.

Chart 2-5: Walk/Bike Commute Mode Share by Age



D. State of Residence

State of residence strongly predicts the likelihood of walking or bicycling to work, with 8.7% of District of Columbia residents walking or bicycling, versus 1.4% of Maryland residents and 1.5% of Virginia residents.

E. Motor Vehicles per Household

Vehicles per household is another strong predictor, as shown in Table 2-6. People in households without any vehicles are much more likely to walk or bike to work than households that own one, while those living in households with one vehicle are more likely to walk or bicycle to work than those owning more than one vehicle.

Table 2-6
Walk/Bike Mode Share by Number of Vehicles

Number of Vehicles in the Household	0	1	2	3	4+
Walk/Bike Commute Mode Share	11.40%	3.70%	1.20%	1.40%	0.60%

Trip Distances

Distance was the number one reason cited by 40% of respondents to COG's Bike to Work Day survey to explain why they were *not* riding to work. Reasons two and three were "No safe place to shower/change after riding" (19%) and "No safe route" (17%). So trip distance is of great interest when gauging the potential for increasing bicycling (or walking). The 2004 SOC survey asked respondents about the length of their commutes. Commute mileage is shown in Table 2-7 below.

Table 2-7: Commute Distance

Distance	Less than 5 miles	5 to 9 miles	10 to 14 miles	15 to 19 miles	20+ miles
Percentage	17%	19%	18%	13%	34%

The mean commute distance in the Washington region is 16.2 miles. However, 36% of commutes in the Washington region are less than ten miles and therefore potentially bikable on a daily basis.

Another major potential source of walk or bike trips is the trip to transit, park and ride lot, or vanpool or carpool pick-up point. As shown in Table 2-8, access trips to alternative mode meetings points tended to be short. Respondents traveled an average of 3.1 miles. The majority of respondents (59%) traveled one mile or less to the meeting point. Another 26% said they traveled between two and five miles. Only 15% of respondents traveled more than five miles.

Table 2-8
Distance Traveled from Home to Alternative Mode Meeting Point
(n=1,230)

Distance	Percentage
1 mile or less	59%
2 miles	10%
3 miles	7%
4 to 5 miles	9%
6 to 10 miles	10%
11 miles or more	5%

Table 2-9
Means of Getting from Home to Alternative Mode Meeting Place
(n=1,577)

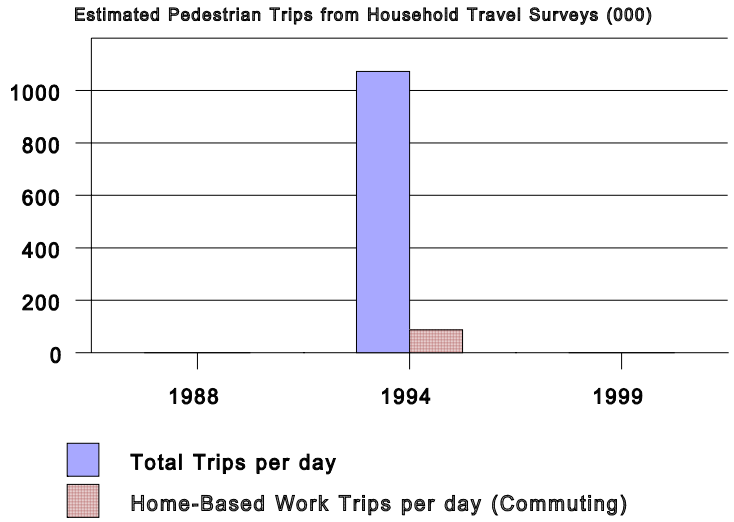
Access Mode to Alternative Mode	Percentage
Walk	39%
Picked up at home	15%
Drive to a central location (e.g., Park & Ride)	18%
Drive alone to driver's/passenger's home	11%
Bus/transit	9%
I am the carpool/vanpool driver	5%
Dropped off/another CP/VP	1%
Other*	1%

Based on the distances being traveled, many of the 29% of respondents who are currently driving to their alternative mode meeting point might be able to walk or bicycle instead.

Non-Work Trips: The COG Household Travel Survey

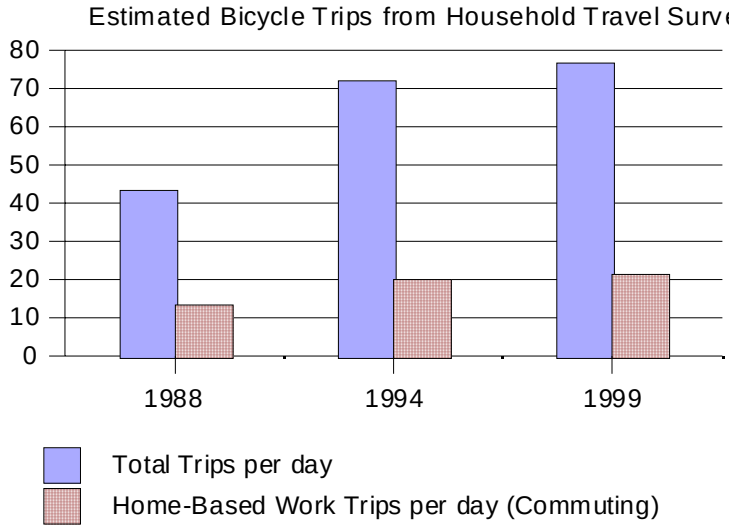
The Census and the State of the Commute Survey give us information about commute trips only. In order to calibrate the regional travel demand model, the Council of Governments conducts periodic surveys of travel behavior. The most recent surveys that include bicycle and pedestrian data were conducted in 1988, 1994 and in 1999.

These surveys use a much smaller sample of the region's residents than the Census. In 1994, 4800 households were surveyed about their travel behavior (out of a metropolitan population of roughly 4 million). In 1999, only 2000 were sampled. The advantage of the Household Travel Survey is that we learn about trips of all purposes, not just work trips. The disadvantage is that only the 1994 sample size was large enough to provide reliable information about bicycling and walking.



According to Figure ? bicycle trips nearly doubled from 1988 to 1999. However, this increase coincides with an increase in population and employment in the region. In those 11 years the population increased an estimated 17% and the number of jobs increased 14%. Another important factor in the apparent increase is the difference in survey methodology between 1988 to 1994. A greater effort was made to gather bicycle and pedestrian trips in 1994 and 1999.

From 1994 to 1999 bicycle trips as a portion of total trips for all modes remained about the same: 0.5 % for all trip purposes and 0.7% for work trips.



The number of pedestrian trips is higher. In the 1994 Household Travel Survey, we found that 7.8% of all trips were on foot, and that walking accounted for 3.1% of work trips. The 1988 Household Travel Survey only asked about work trips, and this data does not include walking to transit.

Walking and Bicycling to Transit

Walking is the dominant mode of access to transit. The census does not pick up walk trips to transit, since a walk trip to transit is counted as a transit trip rather than as a walk trip. In 2002 WMATA surveyed passengers at all 83 of its Metrorail stations.

Table 2-5 shows the number of passengers who arrived at each station on a given day by bicycle, on foot, and by all modes put together. On average, 60.74% of all metrorail passengers walked to the station, while only 0.31% arrived by bicycle. 15% parked and rode. On their return trip park and riders usually access the station on foot. 5% were dropped off by someone, and another 11% arrived at the metro station by bus. People who both arrive at the station on foot and leave their destination station on foot account for 33% of all trips on metrorail.

Mode of access varied enormously by station, from Federal Center, with 94.2% access by foot, to Branch Avenue, with 0.9% access by foot. The top thirty stations for pedestrian access (as a percentage of total passengers accessing that station) are all located in the District of Columbia, Arlington, or Alexandria. Stations with large numbers of pedestrians tend to be major employment centers, in other words people are walking from work to the station. However, largely residential-area stations such as Woodley Park, Cleveland Park, Eastern Market, and Columbia Heights are found in the top thirty. Dense, mixed-use areas such as Bethesda, Foggy Bottom, Crystal City, Pentagon City, Friendship Heights, Van Ness, Dupont Circle, Shaw, and the Rosslyn-Ballston Corridor have high percentages of pedestrian access as well.

Table 2-5: Origin Station by Sorted by % Walk Mode of Access

	Origin Station/Mode	Bicycle	Walk	All modes	% Bike	% Walk
1	Federal Center	4	4550	4830	0.08%	94.2%
2	Capitol South	14	6200	6609	0.21%	93.8%
3	Archives-Navy Mem	10	7310	7817	0.13%	93.5%
4	Judiciary SQ	0	9480	10201	0.00%	92.9%
5	Farragut North	44	24214	26202	0.17%	92.4%
6	McPherson SQ	18	15404	16700	0.11%	92.2%
7	Federal Triangle	0	10591	11489	0.00%	92.2%
8	Farragut West	24	22748	24714	0.10%	92.0%
9	Court House	0	6373	6954	0.00%	91.6%
10	Woodley Park Zoo	39	5555	6109	0.64%	90.9%
11	Metro Center	61	24548	27548	0.22%	89.1%
12	Smithsonian	0	11808	13409	0.00%	88.1%
13	Waterfront	5	3340	3814	0.13%	87.6%
14	Gallery Place	0	12260	14198	0.00%	86.4%
15	Van Ness	8	5617	6557	0.12%	85.7%

16	Foggy Bottom	13	18673	21857	0.06%	85.4%
17	Dupont Circle	39	20433	24040	0.16%	85.0%
18	Cleveland Park	8	4637	5474	0.15%	84.7%
19	U Street	5	3167	3744	0.13%	84.6%
20	Mt Vernon SQ	7	1658	1969	0.36%	84.2%
21	Virginia Square	31	2441	2940	1.05%	83.0%
22	Arlington Cemetery	0	1479	1797	0.00%	82.3%
23	Navy Yard	0	2602	3173	0.00%	82.0%
24	Eastern Market	46	4014	4912	0.94%	81.7%
25	Columbia Heights	56	4352	5339	1.05%	81.5%
26	Crystal City	25	10640	13168	0.19%	80.8%
27	L'Enfant Plaza	0	18021	22716	0.00%	79.3%
28	Shaw Howard U	40	2571	3326	1.20%	77.3%
29	Clarendon	29	2163	2975	0.97%	72.7%
30	Eisenhower Avenue	0	1051	1447	0.00%	72.6%
31	Bethesda	12	6880	9635	0.12%	71.4%
32	Rosslyn	13	10921	15527	0.08%	70.3%
33	Ballston	33	7670	11355	0.29%	67.5%
34	Tenley Town	111	4117	6119	1.81%	67.3%
35	Friendship HTS	36	5679	8892	0.40%	63.9%
36	Pentagon City	11	9060	14196	0.08%	63.8%
37	Medical Center	88	3027	4801	1.83%	63.0%
38	King Street	33	3609	5899	0.56%	61.2%
39	Union Station	53	17924	29439	0.18%	60.9%
40	Braddock Road	48	2039	3429	1.40%	59.5%
41	Stadium Armory	5	1816	3130	0.16%	58.0%
42	Georgia Avenue	0	2156	3950	0.00%	54.6%
43	Brookland CUA	10	3565	6616	0.15%	53.9%
44	Silver Spring	101	6453	12484	0.81%	51.7%
45	Benning Road	0	1488	2952	0.00%	50.4%
46	Potomac Avenue	0	1487	3035	0.00%	49.0%
47	Deanwood	0	836	1945	0.00%	43.0%
48	National Airport	0	2525	6016	0.00%	42.0%
49	Takoma Park	41	2649	6335	0.65%	41.8%
50	West Hyattsville	28	1385	3452	0.81%	40.1%
51	Congress Heights	7	767	1951	0.36%	39.3%
52	Forest Glen	23	759	2076	1.11%	36.6%
53	White Flint	8	1559	4293	0.19%	36.3%
54	East Falls Church	113	1521	4312	2.62%	35.3%
55	Minnesota Avenue	0	1042	2977	0.00%	35.0%
56	Twinbrook	57	1540	4409	1.29%	34.9%
57	Prince George's Plaza	15	1474	4321	0.35%	34.1%
58	Pentagon	0	4447	14720	0.00%	30.2%
59	Grosvenor	80	1131	3877	2.06%	29.2%
60	College Park	100	960	3333	3.00%	28.8%
61	Wheaton	27	1119	4759	0.57%	23.5%
62	Capitol Heights	0	502	2135	0.00%	23.5%

63	Rockville	44	952	4191	1.05%	22.7%
64	Rhode Island Avenue	19	1058	5224	0.36%	20.3%
65	Fort Totten	0	1146	6023	0.00%	19.0%
66	Naylor Road	22	490	2628	0.84%	18.6%
67	Dunn Loring	63	731	4468	1.41%	16.4%
68	Suitland	0	878	5461	0.00%	16.1%
69	Van Dorn Street	9	554	3919	0.23%	14.1%
70	Huntington	19	1041	7482	0.25%	13.9%
71	Cheverly	11	205	1530	0.72%	13.4%
72	Anacostia	0	847	7228	0.00%	11.7%
73	Vienna	136	1391	12293	1.11%	11.3%
74	Glenmont	14	508	5457	0.26%	9.3%
75	Southern Avenue	0	441	4984	0.00%	8.8%
76	New Carrollton	0	727	8698	0.00%	8.4%
77	West Falls Church	9	671	8177	0.11%	8.2%
78	Landover	0	220	3195	0.00%	6.9%
79	Franconia-Springfield	17	456	8591	0.20%	5.3%
80	Addison Road	0	284	6013	0.00%	4.7%
81	Greenbelt	20	270	7015	0.29%	3.8%
82	Shady Grove	19	342	11101	0.17%	3.1%
83	Branch Avenue	10	48	5355	0.19%	0.9%
	Total	1991	393267	647431		
	% of Total Ridership	0.31	60.74	100		

The bicycle mode share was very low at 0.31%, but varied greatly by station and by jurisdiction. Stations with more bicycling tended to be located in the western portion of the region, have access to a major shared-use path, be near a major University, and/or be located in an area with a bicycle-friendly street grid. Stations with no bicycling are either in dense urban employment centers with no bicycle parking, or are located in the Eastern portion of the region. Of the 14 metro stations located east of the Anacostia River in 2002, ten had no bicycle use at all. All stations in Fairfax and Montgomery Counties had some bicycle use. The WMATA rail passenger survey confirms what the census tells us about the distribution of walking and bicycling in the region, with walking and bicycling heavily concentrated in the metro core and at certain inner suburban stations.

		Table 2-5 Origin Station Sorted by % Bike Mode of Access				
	Origin Station/Mode	Bicycle	Walk	All modes	% Bike	% Walk
1	College Park	100	960	3333	3.00%	28.8%
2	East Falls Church	113	1521	4312	2.62%	35.3%
3	Grosvenor	80	1131	3877	2.06%	29.2%
4	Medical Center	88	3027	4801	1.83%	63.0%
5	Tenley Town	111	4117	6119	1.81%	67.3%
6	Dunn Loring	63	731	4468	1.41%	16.4%

7	Braddock Road	48	2039	3429	1.40%	59.5%
8	Twinbrook	57	1540	4409	1.29%	34.9%
9	Shaw Howard U	40	2571	3326	1.20%	77.3%
10	Forest Glen	23	759	2076	1.11%	36.6%
11	Vienna	136	1391	12293	1.11%	11.3%
12	Virginia Square	31	2441	2940	1.05%	83.0%
13	Rockville	44	952	4191	1.05%	22.7%
14	Columbia Heights	56	4352	5339	1.05%	81.5%
15	Clarendon	29	2163	2975	0.97%	72.7%
16	Eastern Market	46	4014	4912	0.94%	81.7%
17	Naylor Road	22	490	2628	0.84%	18.6%
18	West Hyattsville	28	1385	3452	0.81%	40.1%
19	Silver Spring	101	6453	12484	0.81%	51.7%
20	Cheverly	11	205	1530	0.72%	13.4%
21	Takoma Park	41	2649	6335	0.65%	41.8%
22	Woodley Park Zoo	39	5555	6109	0.64%	90.9%
23	Wheaton	27	1119	4759	0.57%	23.5%
24	King Street	33	3609	5899	0.56%	61.2%
25	Friendship HTS	36	5679	8892	0.40%	63.9%
26	Rhode Island Avenue	19	1058	5224	0.36%	20.3%
27	Congress Heights	7	767	1951	0.36%	39.3%
28	Mt Vernon SQ	7	1658	1969	0.36%	84.2%
29	Prince George's Plaza	15	1474	4321	0.35%	34.1%
30	Ballston	33	7670	11355	0.29%	67.5%
31	Greenbelt	20	270	7015	0.29%	3.8%
32	Glenmont	14	508	5457	0.26%	9.3%
33	Huntington	19	1041	7482	0.25%	13.9%
34	Van Dorn Street	9	554	3919	0.23%	14.1%
35	Metro Center	61	24548	27548	0.22%	89.1%
36	Capitol South	14	6200	6609	0.21%	93.8%
37	Franconia-Springfield	17	456	8591	0.20%	5.3%
38	Crystal City	25	10640	13168	0.19%	80.8%
39	Branch Avenue	10	48	5355	0.19%	0.9%
40	White Flint	8	1559	4293	0.19%	36.3%
41	Union Station	53	17924	29439	0.18%	60.9%
42	Shady Grove	19	342	11101	0.17%	3.1%
43	Farragut North	44	24214	26202	0.17%	92.4%
44	Dupont Circle	39	20433	24040	0.16%	85.0%
45	Stadium Armory	5	1816	3130	0.16%	58.0%
46	Brookland CUA	10	3565	6616	0.15%	53.9%
47	Cleveland Park	8	4637	5474	0.15%	84.7%
48	U Street	5	3167	3744	0.13%	84.6%
49	Waterfront	5	3340	3814	0.13%	87.6%
50	Archives-Navy Mem	10	7310	7817	0.13%	93.5%
51	Bethesda	12	6880	9635	0.12%	71.4%

52	Van Ness	8	5617	6557	0.12%	85.7%
53	West Falls Church	9	671	8177	0.11%	8.2%
54	McPherson SQ	18	15404	16700	0.11%	92.2%
55	Farragut West	24	22748	24714	0.10%	92.0%
56	Rosslyn	13	10921	15527	0.08%	70.3%
57	Federal Center	4	4550	4830	0.08%	94.2%
58	Pentagon City	11	9060	14196	0.08%	63.8%
59	Foggy Bottom	13	18673	21857	0.06%	85.4%
60	Judiciary SQ	0	9480	10201	0.00%	92.9%
61	Federal Triangle	0	10591	11489	0.00%	92.2%
62	Court House	0	6373	6954	0.00%	91.6%
63	Smithsonian	0	11808	13409	0.00%	88.1%
64	Gallery Place	0	12260	14198	0.00%	86.4%
65	Arlington Cemetery	0	1479	1797	0.00%	82.3%
66	Navy Yard	0	2602	3173	0.00%	82.0%
67	L'Enfant Plaza	0	18021	22716	0.00%	79.3%
68	Eisenhower Avenue	0	1051	1447	0.00%	72.6%
69	Georgia Avenue	0	2156	3950	0.00%	54.6%
70	Benning Road	0	1488	2952	0.00%	50.4%
71	Potomac Avenue	0	1487	3035	0.00%	49.0%
72	Deanwood	0	836	1945	0.00%	43.0%
73	National Airport	0	2525	6016	0.00%	42.0%
74	Minnesota Avenue	0	1042	2977	0.00%	35.0%
75	Pentagon	0	4447	14720	0.00%	30.2%
76	Capitol Heights	0	502	2135	0.00%	23.5%
77	Fort Totten	0	1146	6023	0.00%	19.0%
78	Suitland	0	878	5461	0.00%	16.1%
79	Anacostia	0	847	7228	0.00%	11.7%
80	Southern Avenue	0	441	4984	0.00%	8.8%
81	New Carrollton	0	727	8698	0.00%	8.4%
82	Landover	0	220	3195	0.00%	6.9%
83	Addison Road	0	284	6013	0.00%	4.7%
	Total	1991	393267	647431		
	% of Total Ridership	0.31	60.74	100		

Outlook

Walking and bicycling taken together are significant modes the Washington region, especially for non-work trips, and for trips to transit. Sixty percent of metrorail passenger trips access the system on foot, versus only fifteen percent who drive and park. Walking is the more significant mode, but it is shrinking, while cycling is of less significance and is stable at the regional level.

Commutes are getting longer across the region, and most population growth taking place in outer jurisdictions that have low and declining levels of walking and bicycling. Those areas have developed in ways that make utilitarian walking and bicycling difficult and

dangerous, with long distances, lack of direct routes, heavy, fast automobile traffic, and poor facilities for walking or bicycling.

The story in the urban core, however, is different. In the District of Columbia, Arlington, Alexandria, and portions of Montgomery County, walking is holding its own, while bicycling is expanding rapidly.

It is likely that most of the future growth in bicycling and walking will occur in the urban core and inner suburban communities. Many inner suburban activity centers have already reached critical levels of traffic congestion. Land values in the inner jurisdictions have been rising rapidly, and regional projections call for rapid employment growth in these same areas. Seventy percent of regional employment growth to 2030 is expected to take place in Regional Activity Clusters, as well as thirty-six percent of household growth. Under current zoning, far more workers are projected to arrive in the region than there will be homes built for them, and transport links will not be adequate for them to commute from outside the region. So there is potential for redevelopment in a way that might facilitate future growth in pedestrian and bicycle traffic.

Data Sources

Major sources of data for bicycling and walking in the Washington region include the US Census, the Commuter Connections State of the Commute Survey, the COG household travel survey, COG's cordon counts, pedestrian and bicycle crash data from the Department of Transportation, WMATA's 2002 Rail Passenger Survey, and the Bike to Work Day Survey.

A. US Census

The most fine-grained data on travel behavior comes from the Census. Every 10 years the Census Bureau asks roughly one in seven individuals (those who fill out the 'long form') how they get to work. People are polled at their home, not at their place of work. The most recent data available is from the 2000 Census. The biggest limitation of the Census data is that it only contains work related trips. Less than one-quarter of all trips are work related. However, work trips occur at the most congested time of day.

B. COG Cordon Counts

COG's cordon counts are conducted by machine or in person, on specific roads or trails. In cordon counts, COG counts the volume of traffic crossing a series of points along an imaginary circle. For example, one cordon line is the Capital Beltway. At approximately 60 points along the Beltway, COG counts all vehicles crossing over or under the Beltway. Another cordon line is known as the Metro Core, circling downtown DC and part of Arlington. Counts take place on a single day, so results may vary widely depending on weather, transportation incidents, security emergencies, or other factors. Pedestrians are not counted. Bicyclists crossing the cordon line may or may not be commuters; they are counted but not stopped or asked their trip purpose. In most cases the numbers represent only one day of counting and can not be viewed as a daily average.

C. Commuter Connections State of the Commuter Survey

The State of the Commute (SOC) survey is a random sample survey of 7,200 employed persons in the 12 counties and four independent cities of the Washington metropolitan designated non-attainment region. Commuter Connections commissions this survey in order to evaluate the effectiveness of its programs. The region polled is the Washington Metropolitan Statistical Area, shown in figure i-1 on page i-4. The sample size of the State of the Commute Survey permitted the calculation of walk/bike mode shares by annual income, ethnicity, age, and state of residence.

The SOC survey does not provide any information on non-work trips. Surveys were carried out from February 7th to May 2nd, 2004, by telephone, and ask about behavior "last week". This methodology differs somewhat from U.S. Census, which asks about behavior during the first week in April. The 2001 and 2004 SOC surveys show lower numbers for walking and

bicycling than does the census.

D. COG Household Travel Survey

E. 2002 WMATA Rail Passenger Survey

WMATA carried out a survey of rail passengers in 2002. Surveys were carried out between April 8 and May 22, 2002. Data were collected for the full day, divided into a.m. and p.m. peak and off-peak periods. Subjects were interviewed in metro rail stations. The primary purpose of the survey was to allow WMATA to estimate the percentage of total ridership residing in jurisdiction. However, the survey also asked riders what mode of transportation they used to access or egress the station. 57,700 responses were gathered.

F. Bike to Work Day Survey

The Bike to Work Day survey is a survey of participants in the regional Bike to Work Day. It is not a random sample, but it provides a portrait of a self-selected group of cyclists. Participants in Bike to Work Day often rode considerable distances for the event, with 29% riding 10-15 miles, and another 15% riding more than 15 miles. However, the post-ride survey indicates that people may be willing to ride farther for a one-day event than they will on a daily basis. Several months after the event participants were asked if they still biked to work, and if not why not. Of the people who did not continue riding to work after participating in Bike to Work Day, 40% cited distance, while another 17% cited lack of a safe route, 19% cited lack of showers or changing facilities, and 13% cited the need for a car to take care of personal business. Only 4% cited weather.