

PORTLAND BICYCLE COUNT REPORT 2010

Introduction

Each year since the early 1990s, the Portland Bureau of Transportation (PBOT) has counted bicycle trips at various locations throughout the city. The majority of these counts have been conducted manually by volunteer counters and city staff standing at street corners and on bridges during the two-hour rush (“peak period”) counting bicycles that pass. In addition to the overall number of trips, PBOT also records the gender of each person and whether they are wearing a helmet. Most counts are still conducted in this manner, though in the early 2000s PBOT added a number of 24-hour automated "hose" counts (pressure-sensitive pneumatic hoses) on some bridges and trails. These counts, while they do not record gender or helmet use, provide a more precise record of the ebb and flow of bicycle traffic over 24-hour periods.

Summary of the 2010 Bicycle Count:

- **Bicycle use in Portland continued the two decade long upward trend.**
- **Bicycle traffic on Portland’s four principal bicycle-friendly bridges (Broadway, Steel, Burnside and Hawthorne bridges) showed the highest number of bicycle trips since annual counts began in 2000/2001.**
- **Bicycle traffic on Portland’s four principal bicycle-friendly bridges and at 109 non-bridge locations showed a one-year increase of 12 and seven percent respectively. The total number of bicycle trips in Portland (combined bridge and non-bridge) increased eight percent compared with 2009.**
- **Bicyclists represented approximately 14 percent of all vehicles crossing those bridges, up one percentage point from 2009**
- **Bicycles represented approximately 20 percent of all vehicles on the Hawthorne Bridge, down one percentage point from 2009. Bicycles represented 16 , 17 and five percent of all vehicles on the Broadway, Steel and Burnside bridges, respectively, compared to 12 , 18 and five percent in 2009.**
- **Since the 2000/2001 counts, the overall trend in bicycle traffic was up 190 percent; roughly a tripling in use.**
- **Helmet use remained the same as in 2009, with 77 percent of all people counted wearing their helmet. Helmet use in 2010 continued to be more prevalent among female riders (83 percent) than for male riders (74 percent).**
- **Female riders represented 31 percent of bicyclists citywide, showing no change from 2009.**

Prior to 2008 the majority of counts were concentrated in close-in neighborhoods and the Central City. Beginning in 2008, the city placed an emphasis on increasing the total number of counts citywide, with a particular focus on locations in Southwest and East Portland (east of I-205). Each year since PBOT has expanded the number of counted locations, from 121 locations in 2008 to 153 in 2010, the highest number of locations counted since the volunteer count program began. PBOT compiled data from 150 of these locations based on manual two-hour peak period counts. These two-hour peak period counts are multiplied by five to provide an estimate of total daily bicycle traffic at each counted location¹.

¹ This is a standard traffic engineering rule of thumb. Its accuracy is borne out by our 24-hour automated counts.
November 2010

Annual bicycle counts constitute one of the City's three principal means of assessing progress in its efforts to make the bicycle an integral part of daily life in Portland.² This report identifies the key findings from the latest round of bicycle counts conducted between July 20 and September 30, 2010. The report also provides graphical representation of the data and includes a staff analysis.

The most significant finding of the 2010 count is the continuation of the two-decade upward trend of bicycle use in Portland. Of 110 locations that were counted in both 2009 and 2010 (including the four bicycle-friendly Willamette River bridges and trails), 46 locations showed a decrease compared to 2009 while 64 locations showed an increase. Overall, bicycle use increased approximately eight percent compared to 2009. Helmet use showed very little change compared to 2009 and remains relatively high at 77 percent. The split of male to female cyclists also remained steady since 2009, with 69 percent of cyclists identified as male.

All the data discussed in this portion of the report is displayed graphically in the appendix.

Bicycle-Friendly Willamette River Bridge Counts

An important gauge for measuring bicycle use in Portland is the number of bicycle trips across the four principal bicycle-friendly bridges over the Willamette River (Hawthorne, Burnside, Steel, and Broadway bridges). The number of bicyclists crossing these four bridges has grown rapidly in recent years, with the exception of 2009. 2010 proved a challenging year in which to collect data on Portland's bridges. In particular, construction on the Broadway Bridge had significant impact on bicycle traffic on both that bridge and the Steel Bridge, which is the nearest alternative to the Broadway. Our only available automated count data for the Steel Bridge prior to the Broadway Bridge closure is from May, resulting in a lower than peak level observation³.

The reported numbers reflect an average of weekday bicycle trips on the bridges, which for the Hawthorne, Burnside, Steel and Broadway Bridges were 7,133, 1,865, 3,287 and 5,291, respectively⁴. The Broadway Bridge displayed a discordantly high increase in recorded bicycle trips that was consistent across a number of count days. No other bridges were closed during that period so it is not clear what may have contributed to those higher numbers.

In 2010, Portlanders took an average of approximately 17,580 daily weekday bicycle trips across the Willamette River on the city's four principal bicycle bridges (compared to approximately 15,750 in 2009 and 16,700 in 2008).

Bicycle trips make up a significant proportion of all vehicular trips across these bridges. Though the most current auto count numbers on the four principal bicycle bridges are from 2009 we estimate that bicycle trips accounted for 14 percent of the combined daily bicycle and auto trips on these four bicycle-friendly bridges in 2010. For

² The other two means include data from the US Department of Commerce (either the annual American Community Survey or the decennial US Census), and the annual resident survey conducted by the City Auditor's Office.

³ Based on data displayed in the Chart titled "Summer and Winter Comparison of Bicycle Trips", bicycle use in May 2010 appears to be approximately two-thirds ($\frac{2}{3}$) of trips during the summer months.

⁴ The Burnside Bridge count was a one-day count, only. Peak recorded use on the Hawthorne, Steel and Broadway Bridges was 7,520, 8,971 (lower deck, during the Broadway closure) and 6,072, respectively.

contrast, bicycles represented only five percent of all vehicles on these bridges in 2000. The proportion of bikes in relation to cars on these bridges has nearly tripled since 2000.

Non-Bridge Counts

An increase in bicycle traffic on the bridges is consistent with increases in citywide ridership. Comparisons at 109 non-bridge locations citywide

that were also counted in 2009 show an overall almost 7 percent increase in bicycle use across Portland in 2010 compared to 2009. Compared to 2000/2001, ridership citywide has increased 189 percent based on a comparison of 32 non-bridge locations.

2010 Non-Bridge Bicycle Counts Compared with Prior Years

DISTRICT/ LOCATION	% CHANGE SINCE 2000/01	BASED ON # LOCATIONS	% CHANGE SINCE 2009	BASED ON # LOCATIONS
Citywide Total	189%	32	6.8%	109
Central City (west side)	243%	6	6.3%	13
North	367%	2	7.0%	7
Northeast	80%	5	7.5%	15
Southeast	234%	7	2.9%	24
East	Na	Na	9.5%	17
Northwest	93%	4	2.0%	10
Southwest (excluding Central City)	133%	8	19.0%	24

Citywide Manual Counts

Since 2000/2001, every district in the City has seen consistent and significant growth in bicycle use. The largest gains have been made in North Portland, which saw a 367 percent increase at 2 locations. This is followed by the Central City with a 243 percent increase at six locations. The next highest percentages of growth since 2000/2001 were in Southeast Portland and in Southwest Portland, which experienced 234 and 133 percent increases respectively.

In 2010, all districts experienced growth in ridership compared to the 2009. Southwest Portland and East Portland lead the growth with 19 percent and 9.5 percent respectively. The lowest increases are seen in Northwest Portland up 2.0 percent and Southeast Portland up 2.9 percent.

Helmet Use

Helmet use in Portland has been trending steadily upward since the early 1990s. In 1992 only 44 percent of Portland cyclists used a helmet. In 2010 approximately 77 percent did. The year of highest helmet use was 2008, when approximately 80 percent of Portlanders wore a helmet while riding a bicycle.

Helmet use is highest in Southwest Portland, where approximately 88 percent of riders wear them. It is lowest in East Portland where only 58 percent of riders were observed wearing them.

2010 Compared with 2009: Helmet Use

DISTRICT/ LOCATION	% 2009	% 2010	CHANGE IN % POINTS
Citywide Total	77%	77%	0
Central City (west side)	81.5%	75.2%	-6.3
North	82%	81%	-1
Northeast	78%	77%	-1
Southeast	73%	74%	1
East	60%	58%	-2
Northwest	76%	74%	-5
Southwest (excluding Central City)	88%	88%	0

Only in Southeast Portland did helmet use grow, by approximately one percentage point. The Central City experienced a 6.3 percent drop from 2009 observations.

As has been the case in every year since 1992, women wear helmets at a higher rate than do men. In 2010 approximately 83 percent of female riders wore helmets while 74 percent of men wore them. Compared to 2009, helmet use among women increased approximately one percentage point, while helmet use by men remained steady.

Gender Split

Because cities with high bicycle mode shares typically achieve a balance between male and female ridership, gender parity is considered an important indicator of success in creating safe, comfortable and attractive conditions for bicycling. Women represented 31.2 percent of all bicyclists counted during Portland’s summer 2010 counts. Looking at the citywide average, this gender split remains essentially unchanged compared to 2009.

Depending on the area of the City, the proportion of women riders fluctuated between 19 percent and 34 percent. The highest proportion of women riding bicycles was observed in Inner Northeast Portland, where they represented 34 percent of all riders counted, and the lowest was in East Portland, where women represented 19 percent of riders. Northwest Portland saw the largest one-year increase in the percentage of female riders, where their numbers grew five percentage points from last year. Northeast Portland experienced the largest decreases in percentage of female riders, where women as a percentage of all people riding bicycles declined 1.8 percentage points.

Percentage of Bicyclists Identified as Female

DISTRICT/ LOCATION	% 2009	% 2010	CHANGE IN % POINTS
Citywide Total	31.0%	31.2%	0.2
Central City (west side)	31.3%	30.9%	-0.4
North	32.9%	31.8%	-1.1
Northeast	35.7%	33.9%	-1.8
Southeast	32.8%	33.4%	0.6
East	18.6%	19.5%	0.9
Northwest	27.7%	32.8%	5.1
Southwest (excluding Central City)	25.8%	24.7%	-1.1

2010 Locations with Highest and Lowest Share of Female Cyclists

RANK	LOCATION	% TRIPS BY WOMEN	TOTAL DAILY TRIPS
1	N Vancouver & Ainsworth	45%	990
2	NW Johnson & 18th	42%	720
3	NE Skidmore & 9th	41%	535
4	SW Moody & River Parkway	41%	1655
5	SW Waterfront & Harbor Way	40%	2210
6	NE Irving & 20th	40%	1100
7	SE Clinton & 13th	40%	855
8	SE Taylor & 41st/42nd Ave	40%	1185
9	NE Going & 9th	39%	1040
10	NW Johnson & 19th	39%	445
...			
106	SW Broadway & Montgomery	17%	1010
107	E Burnside & 122nd	16%	400
108	SW Beaverton Hillsdale Hwy & Shattuck	15%	305
109	SE Market & 130th	14%	360
110	N Union Path I-5 Ramp (to Hayden Island)	14%	545
111	SW Capitol & Sunset	14%	625
112	SW Canyon Ct & Skyline	12%	540
113	SW Humphrey/Talbot & Patton	11%	435
114	SE Division & 122nd	11%	360
115	SW Barbur Blvd & Capitol Hwy	9%	275

The proportion of women riders at individual locations ranged from a low of 9 percent at SW Barbur and Capitol to a high of 45 percent at N Vancouver and Ainsworth. The above table shows the ten highest and lowest locations for women riders. This data is mapped in a display in the Appendix (Portland Bicycle Counts Locations with Highest and Lowest Share of Women Riding Bicycles).

Summer and Winter Comparison

In recent years the city has endeavored to collect bicycle trip data at different times throughout the year on selected bridges. In 2010 the city recorded bicycle trips on the Hawthorne Bridge in January, February, March, May and June. The results of this are shown in the figure titled: “Summer and Winter Comparison” in the Appendix (Summer and Winter Comparison of Bicycle Trips). As this graph shows, bicycle use in the winter is approximately 33 percent less than average use in the summer. This is not unexpected. As shown in the graph it is worth noting that the winter counts on the Hawthorne Bridge in 2010 are comparable to, and in some instances exceed summer counts recorded just several years ago in 2006.

Crash Data

The City of Portland reports an indexed bicycle crash rate based on the reported number of crashes and the number of daily bicycle trips across four of the central Willamette River bridges. A chart displaying the change in that rate over time is included in this report. Beginning in 2008, in response to the city’s Community Policing Agreement with the Police Bureau, the Bicycle Transportation Alliance and the Willamette Pedestrian Coalition, the Police Bureau amended their procedures for reporting crashes, resulting in more of the crashes involving a bicycle being reported. This increase does not necessarily represent a real increase the number of overall bicycle-involved crashes.. The elevation may simply have occurred because fewer crashes are going unreported. Because of this lowered threshold for reporting, reported bicycle crashes no longer offer an “apples to apples” comparison to bicycle crashes reported prior to 2008. This likely explains the increase in reported crashes in 2008 and 2009 (data is not yet available for 2010). We do not expect to be able to understand trends in bicycle crashes in Portland until several years of data have been collected using this new procedure. Nonetheless, we have incorporated data collected in this new manner into our analysis of bicycle crash rate and safety.

Conclusion

Results from the 2010 Summer Bicycle Counts continued the long-term upward trend of increasing bicycle use throughout the City of Portland. The 12 percent increase of bridge trips reflected the highest number of bicycle trips ever counted on Portland’s four bicycle-friendly bridges, and the 7.6 percent total citywide increase contributed to a near-tripling of bicycle use in Portland since 2000/2001. The count effort in 2010 included more locations than ever, providing greater coverage in all districts of the city, and building an even stronger database for future comparisons. The gender split observed in 2010 closely matches that of 2009, with approximately 31 percent of all trips being made by women. Helmet use did not vary widely from 2009’s rate of 77percent observed wearing helmets. While bicycle trips in decrease in winter compared to summer, the drop appears to be on the order of one-third of average summer trips.

APPENDIX: GRAPHS AND CHARTS

Graphs

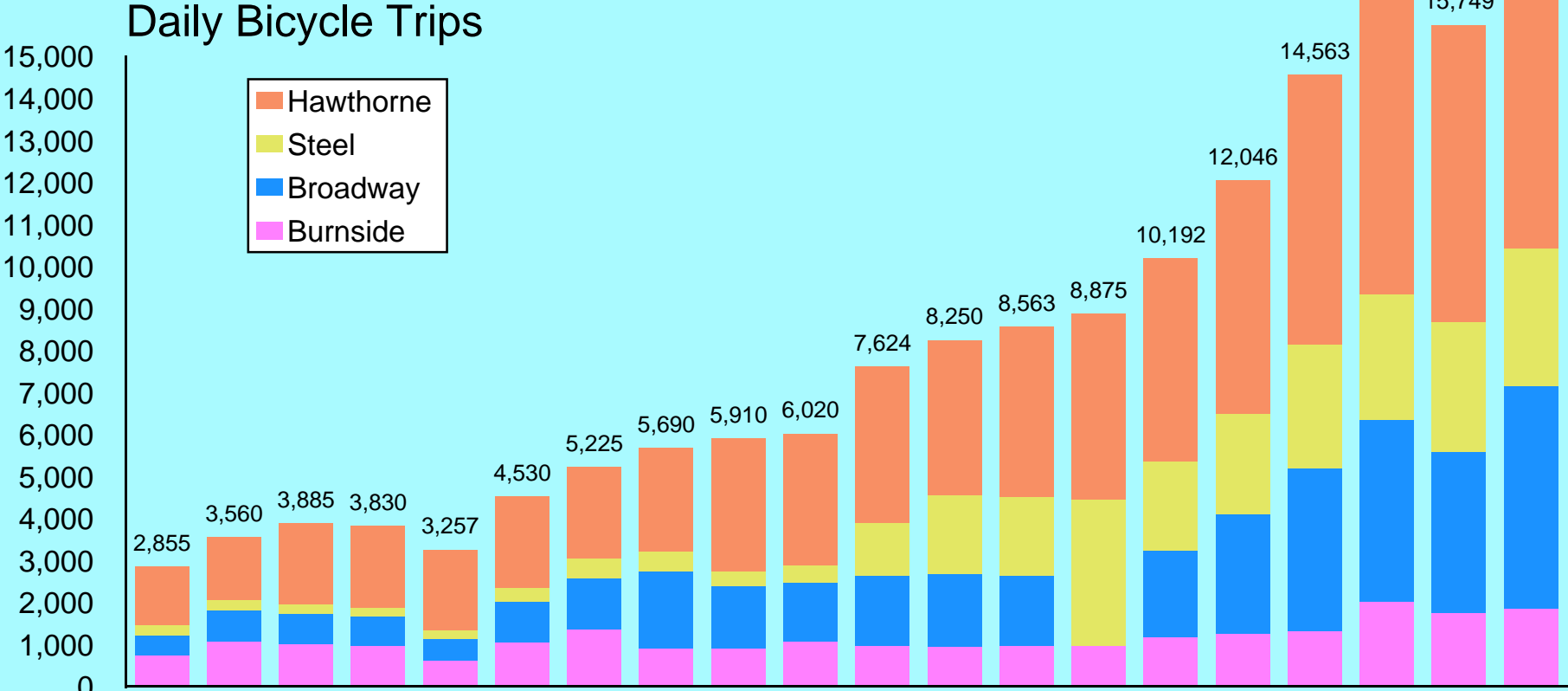
- Average Daily Bicycle Traffic 4 Willamette River Bridges
- Combined Bicycle Traffic Over Four Main Portland Bicycle Bridges Juxtaposed with Bikeway Miles
- Combined 2010 Bicycle Traffic Over Four Main Portland Bicycle Bridges Juxtaposed with Bicycle Crashes
- Bicycle Traffic at City Count Locations (Bridge and Non-Bridge Traffic)
- Changes in Bicycle Traffic (Bridge, Non-Bridge, and Combined Locations 2010)
- Daily Bicycle Counts by Section of City
 - SE Portland
 - North Portland
 - East Portland
 - NE Portland
 - West Portland (Central City)
 - Southwest Portland (not including Central City)
 - Northwest Portland (not including Central City)
- City of Portland Bicycle Counts by Year by Gender
- City of Portland Bicycle Counts by Sector 2010 by Gender
- City of Portland Bicycle Counts by Year by Helmet Use
- City of Portland Bicycle Counts by Sector 2010 by Helmet Use
- Portland Bicycle Counts 2010 Locations with Highest and Lowest Share of Women Riding Bicycles
- Summer and Winter Comparison of Bicycle Trips

Charts

- City of Portland Bicycle Counts by Year (Gender and Helmet Use)
 - Citywide
 - North Portland
 - Northwest Portland
 - Southwest Portland
 - East Portland
 - Inner NE Portland
 - Inner SE Portland
- Bicycle and Auto Counts on the Four Main Bicycle-Friendly Downtown Bridges 1991-2010

Average Daily Bicycle Traffic

4 Main Willamette River Bicycle Bridges



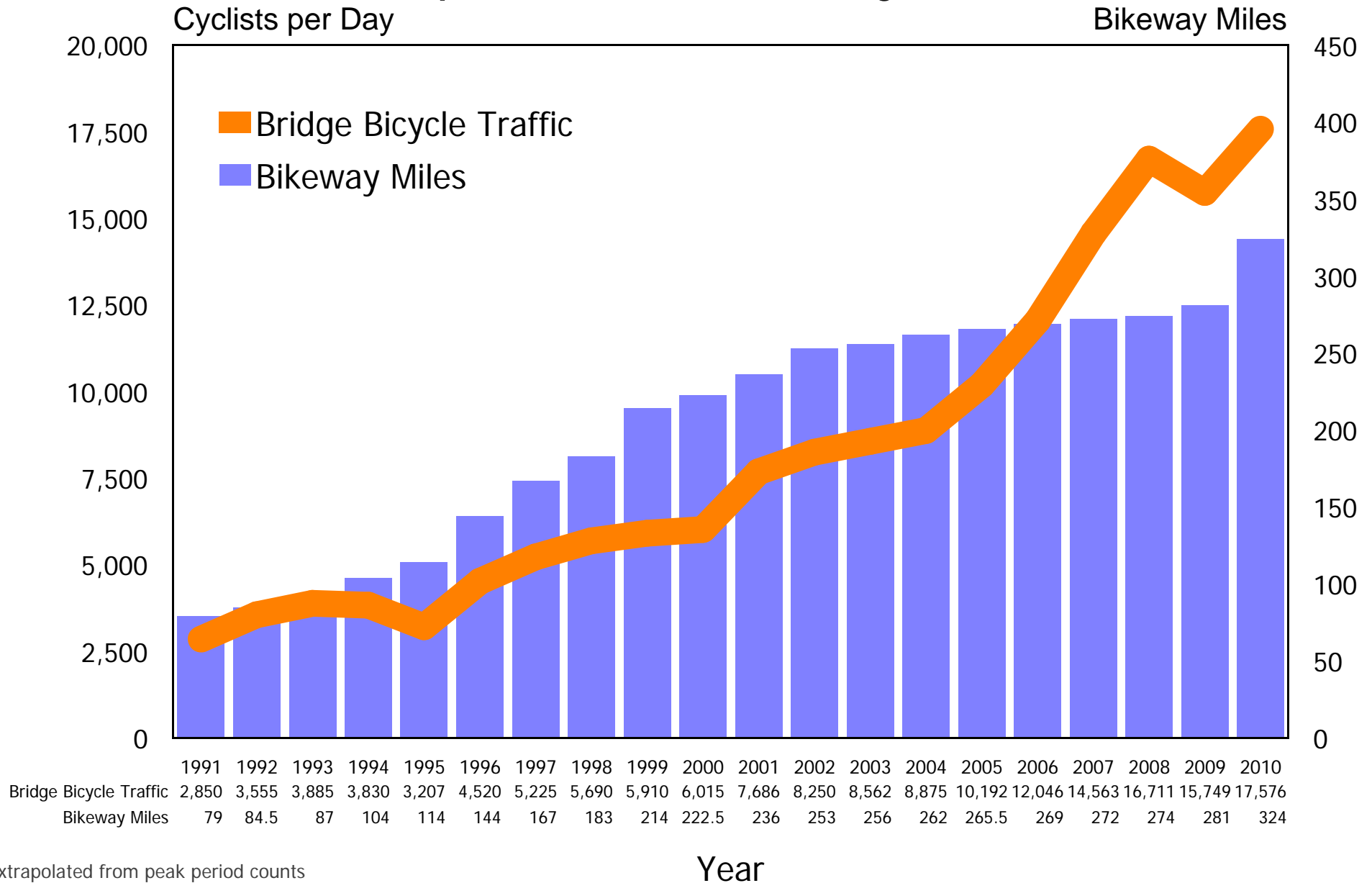
	Before 1992	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Hawthorne	1,390	1,500	1,920	1,940	1,910	2,165	2,170	2,471	3,154	3,125	3,729	3,682	4,055	4,428	4,829	5,557	6,423	7,379	7,063	7,133
Steel	230	230	220	220	200	350	475	460	360	410	1,250	1,891	1,860	3,482	2,112	2,373	2,943	2,982	3,101	3,287
Broadway	495	755	735	690	527	950	1,205	1,854	1,476	1,405	1,680	1,712	1,683	*	2,081	2,856	3,872	4,315	3,825	5,291
Burnside	740	1,075	1,010	980	620	1,065	1,375	905	920	1,080	965	965	965	965	1,170	1,260	1,325	2,035	1,760	1,865

Year

Based on either 24-hour hose counts or extrapolated from 4-6 pm counts

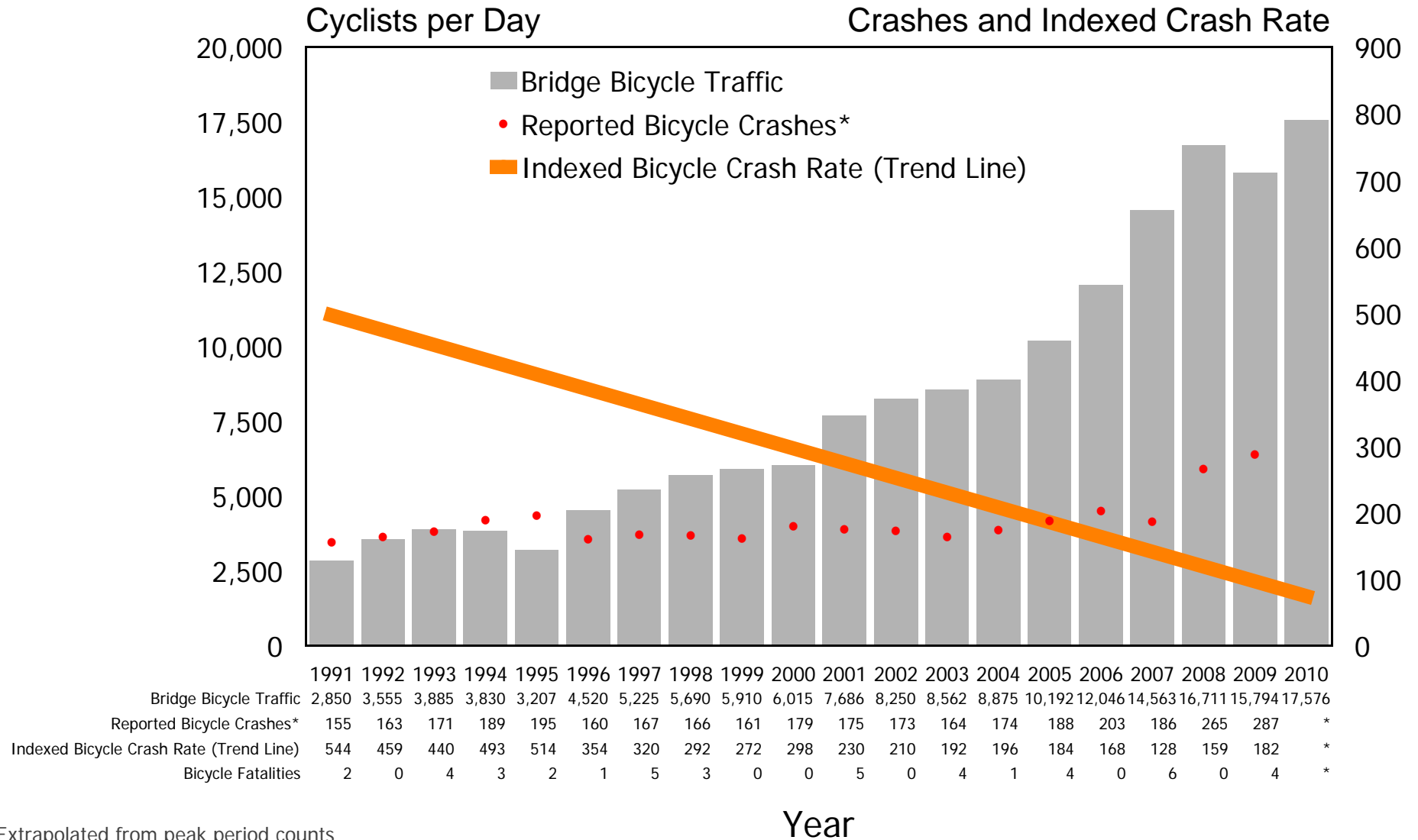
* Broadway Bridge closed for construction during time of count.

Bicycle Traffic across Four Main Portland Bicycle Bridges Juxtaposed with Bikeway Miles



Extrapolated from peak period counts

Combined Bicycle Traffic over Four Main Portland Bicycle Bridges Juxtaposed with Bicycle Crashes



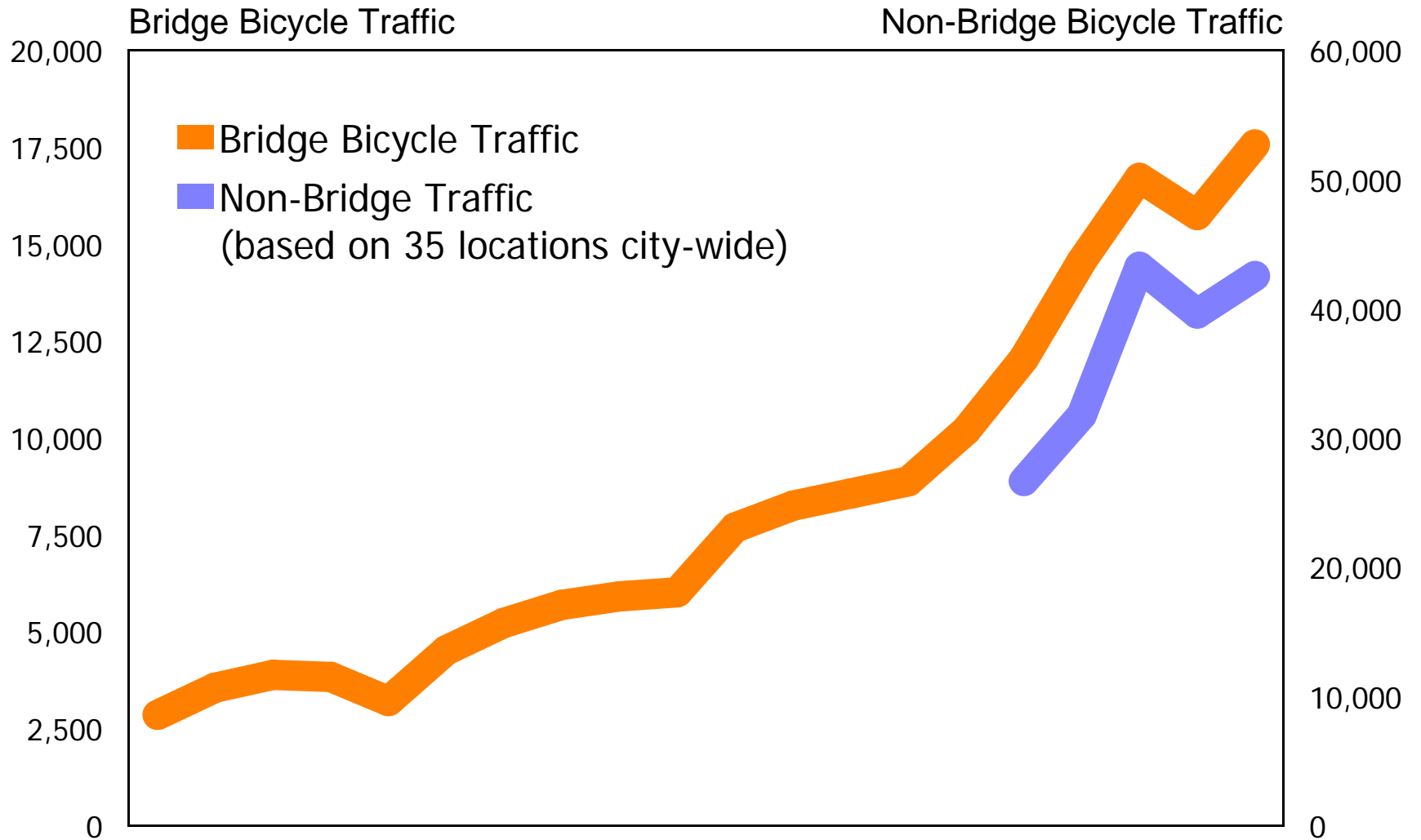
Extrapolated from peak period counts

"Crash Rate" represents an indexing of annual reported crashes to daily bicycle trips across the four main bicycle bridges.

*2008, 2009 Reported Bicycle Crashes data reflects increased crash reporting requirements.

Bicycle Traffic at City Count Locations

Bridge and Non-Bridge Traffic



1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

Bridge Bicycle Traffic 2,850 3,555 3,885 3,830 3,207 4,520 5,225 5,690 5,910 6,015 7,686 8,250 8,562 8,875 10,192 12,046 14,563 16,711 15,749 17,576

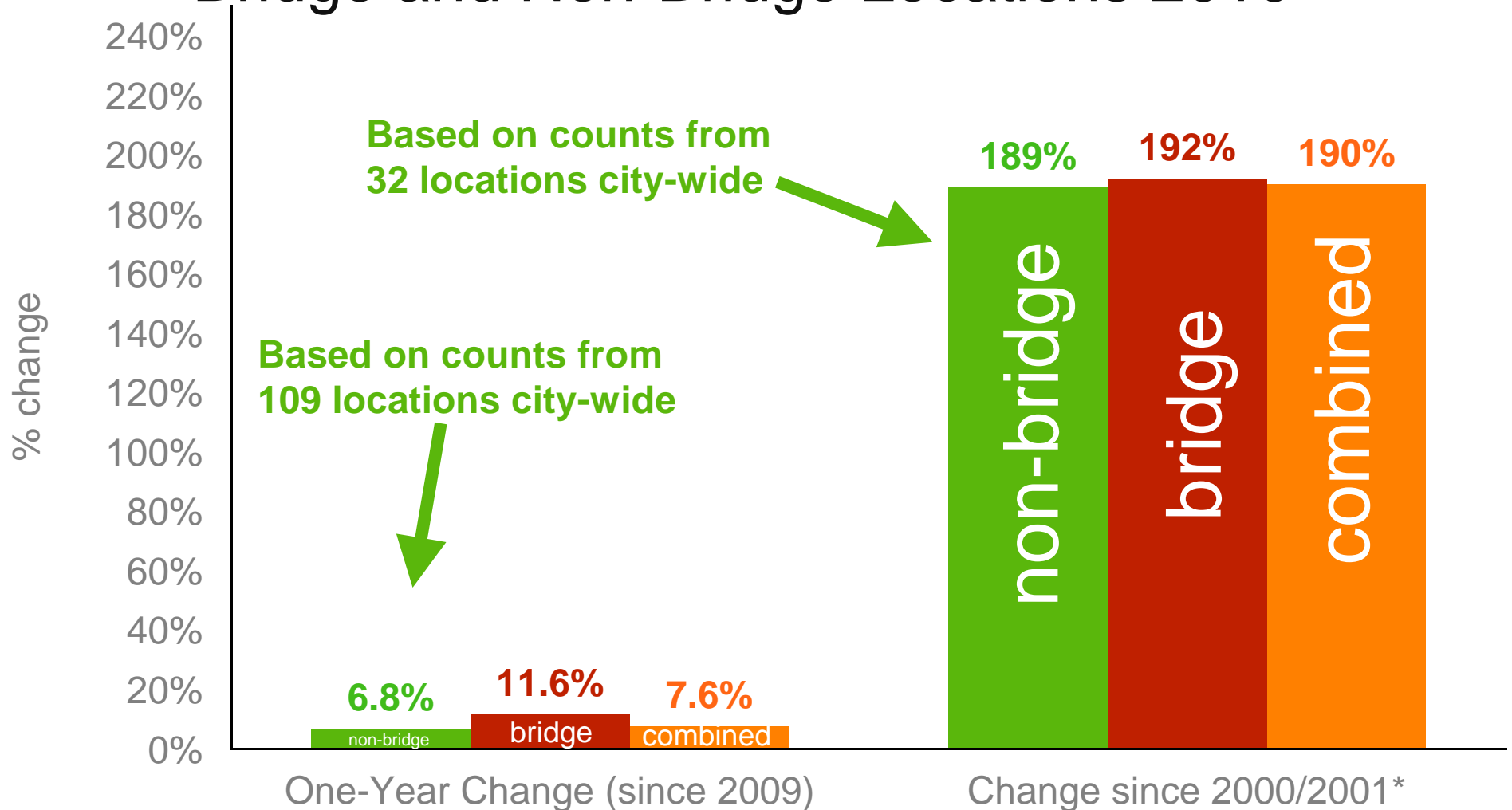
Non-Bridge Bicycle Traffic (based on 35 locations city-wide) 26,645 31,755 43,245 39,625 42,535

Based on 24-hour hose counts or extrapolated from peak period counts

Year

Changes in Bicycle Traffic

Bridge and Non-Bridge Locations 2010



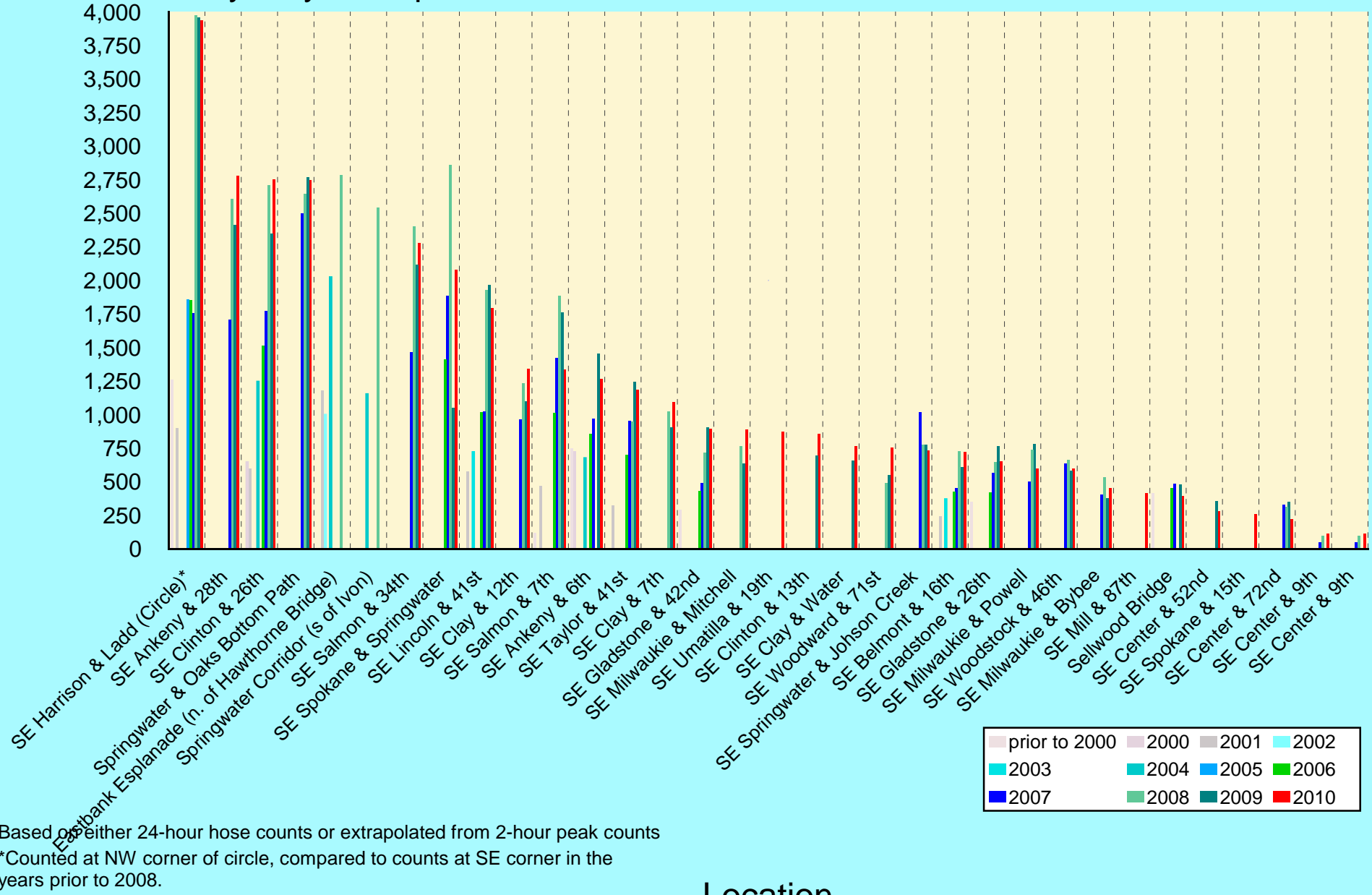
Based on manual and automated bicycle counts

*used the higher of data available 2000/2001

- Non-Bridge Locations
- Bridges (Hawthorne, Burnside, Steel & Broadway)
- Combined Bridge & Non-Bridge

Daily Bicycle Traffic Inner SE Portland 2010 Counts Compared to Previous Years

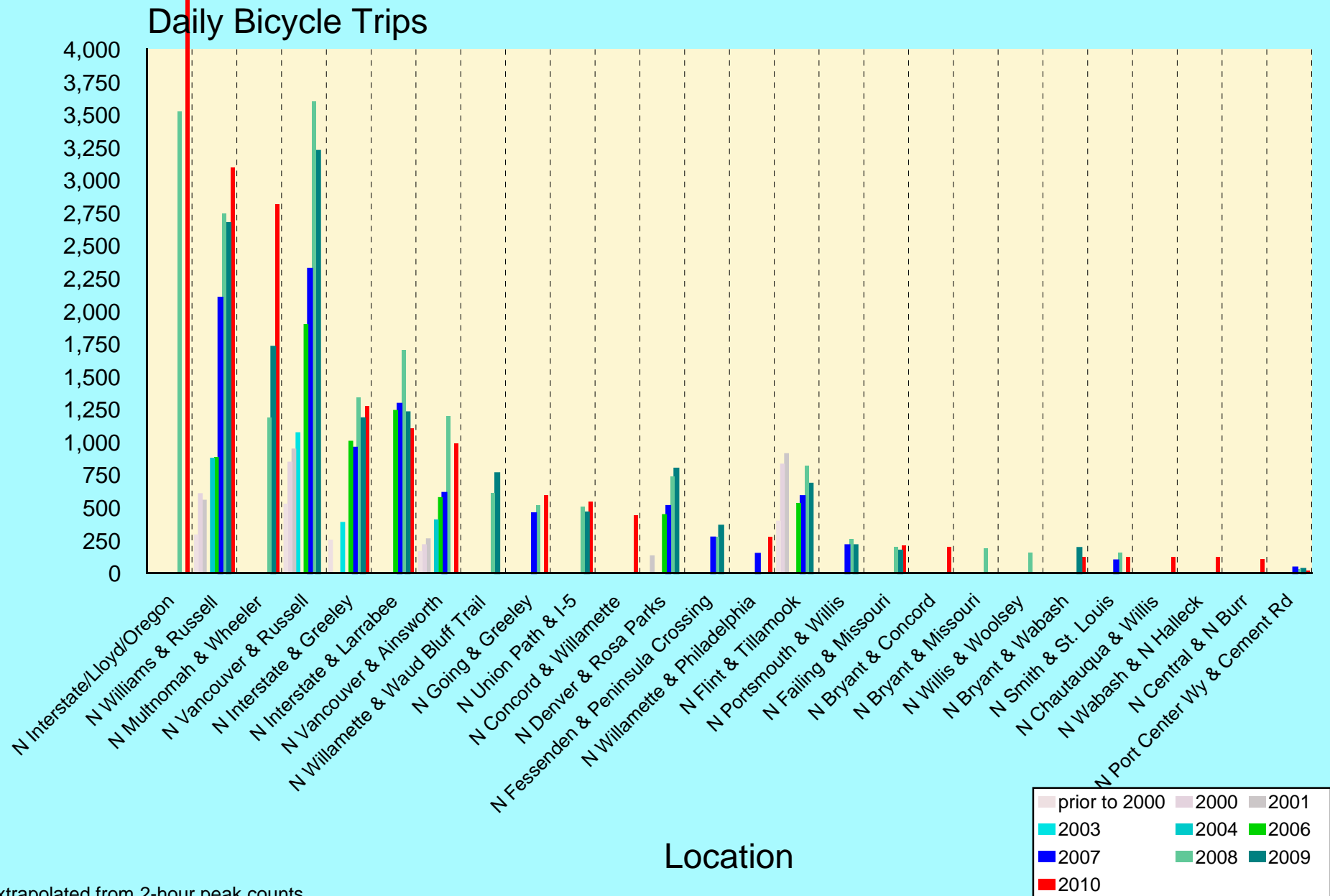
Daily Bicycle Trips



Based on either 24-hour hose counts or extrapolated from 2-hour peak counts
 *Counted at NW corner of circle, compared to counts at SE corner in the years prior to 2008.

Location

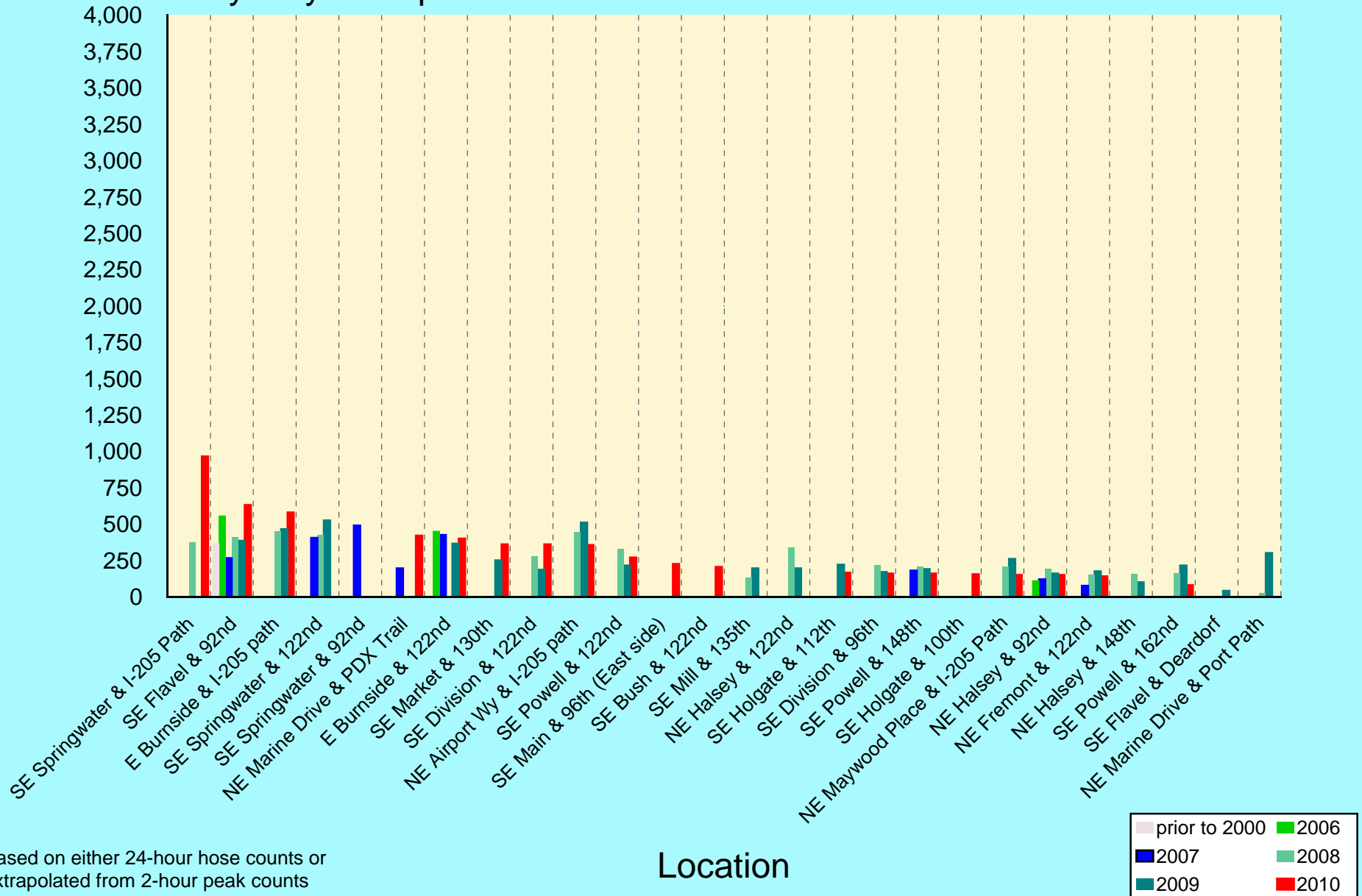
Daily Bicycle Traffic: North Portland 2010 Counts Compared to Previous Years



Extrapolated from 2-hour peak counts

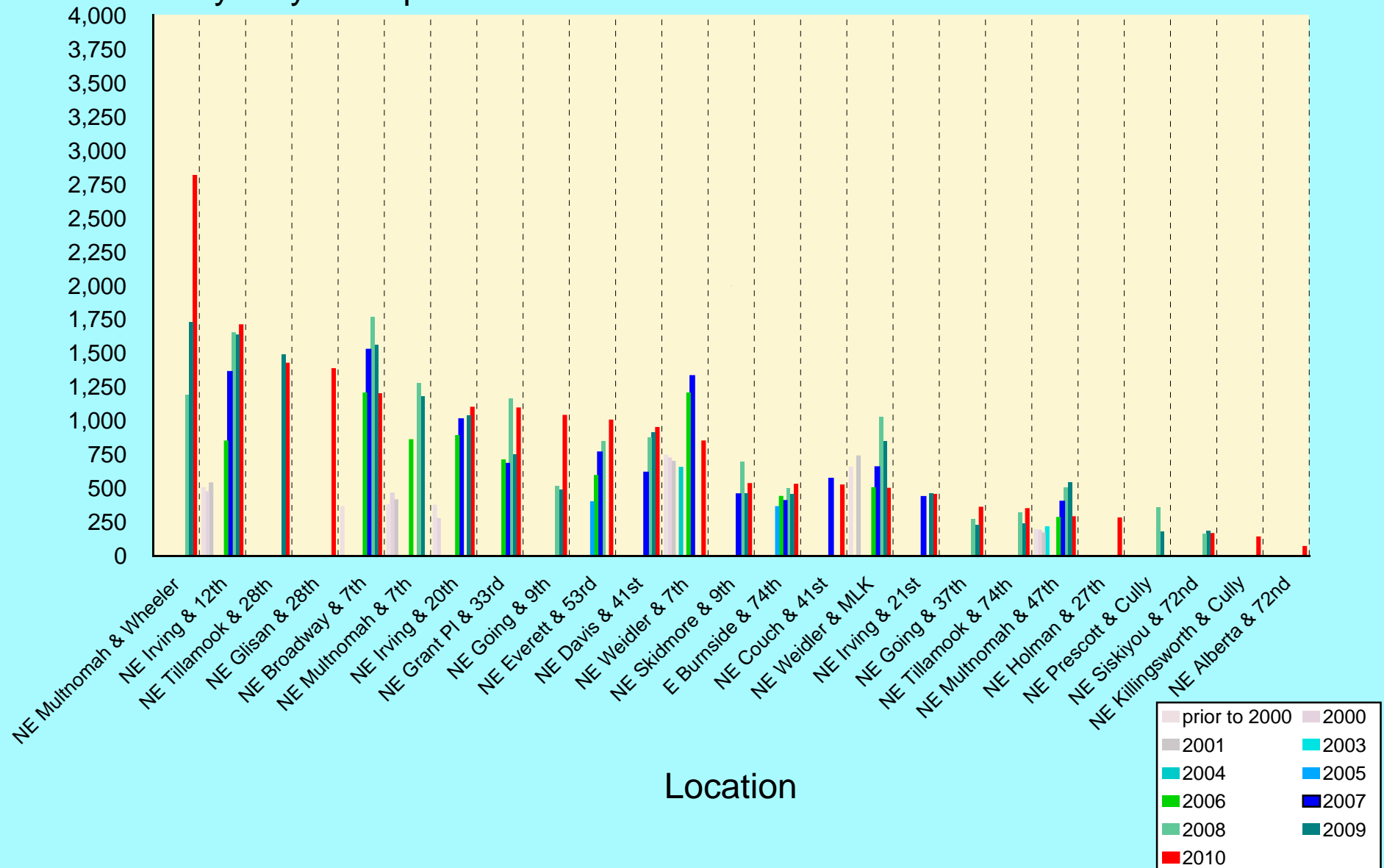
Daily Bicycle Traffic East Portland 2010 Counts Compared to Previous Years

Daily Bicycle Trips



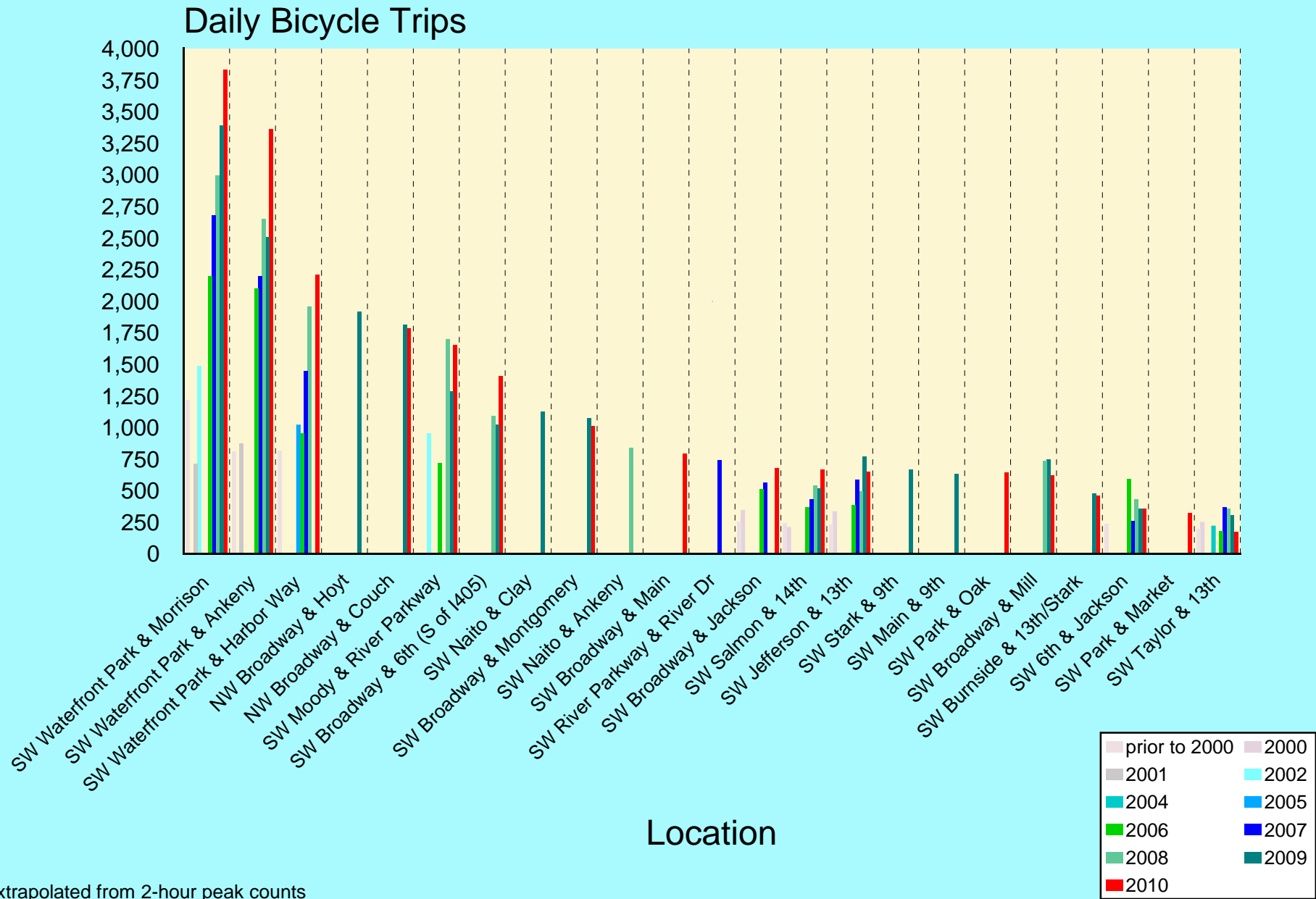
Daily Bicycle Traffic: Inner NE Portland 2010 Counts Compared to Previous Years

Daily Bicycle Trips



Extrapolated from 2-hour peak counts

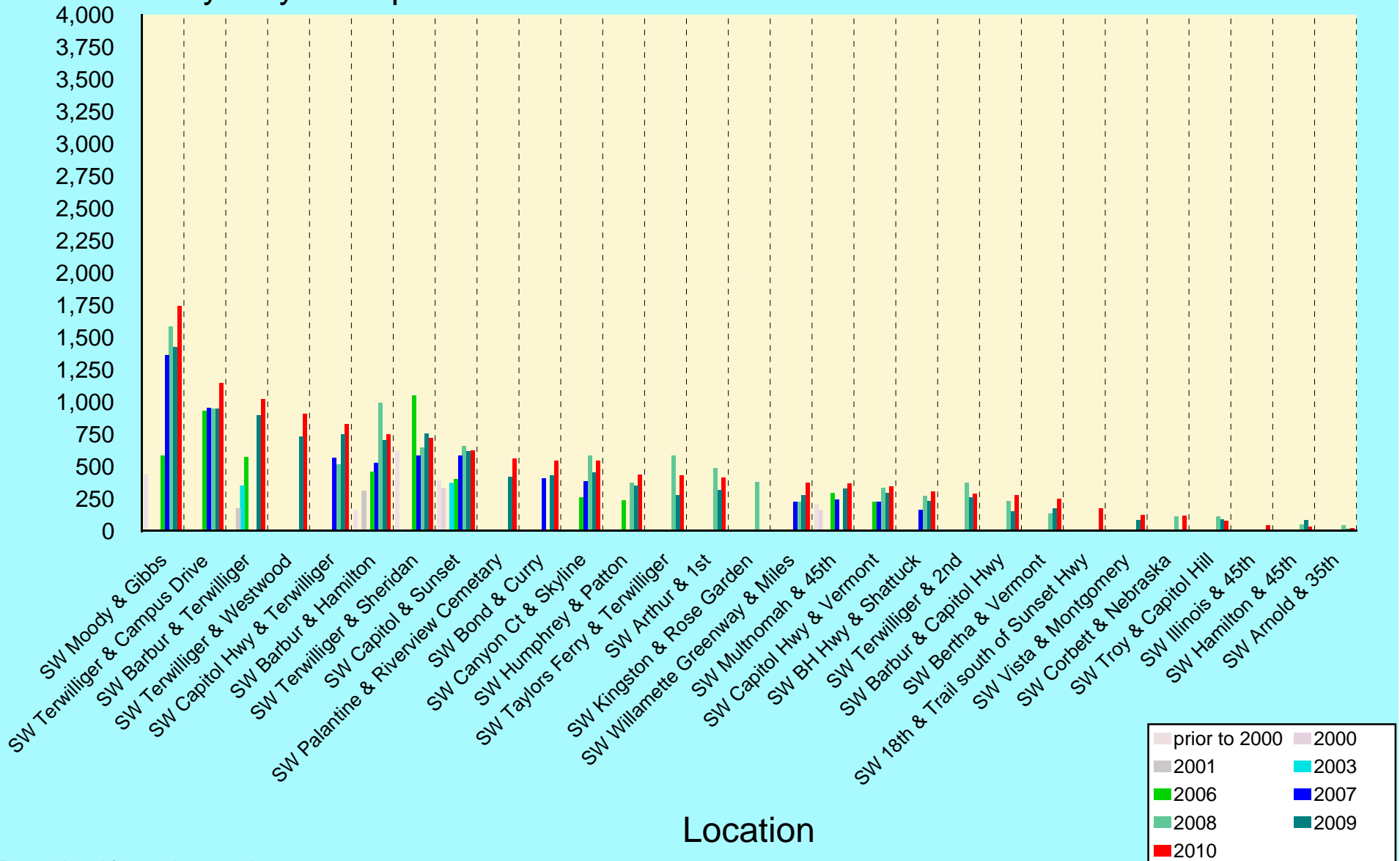
Daily Bicycle Traffic: West Portland (Central City) 2010 Counts Compared to Previous Years



Extrapolated from 2-hour peak counts

Daily Bicycle Traffic: Southwest Portland (not incl. Central City) 2010 Counts Compared to Previous Years

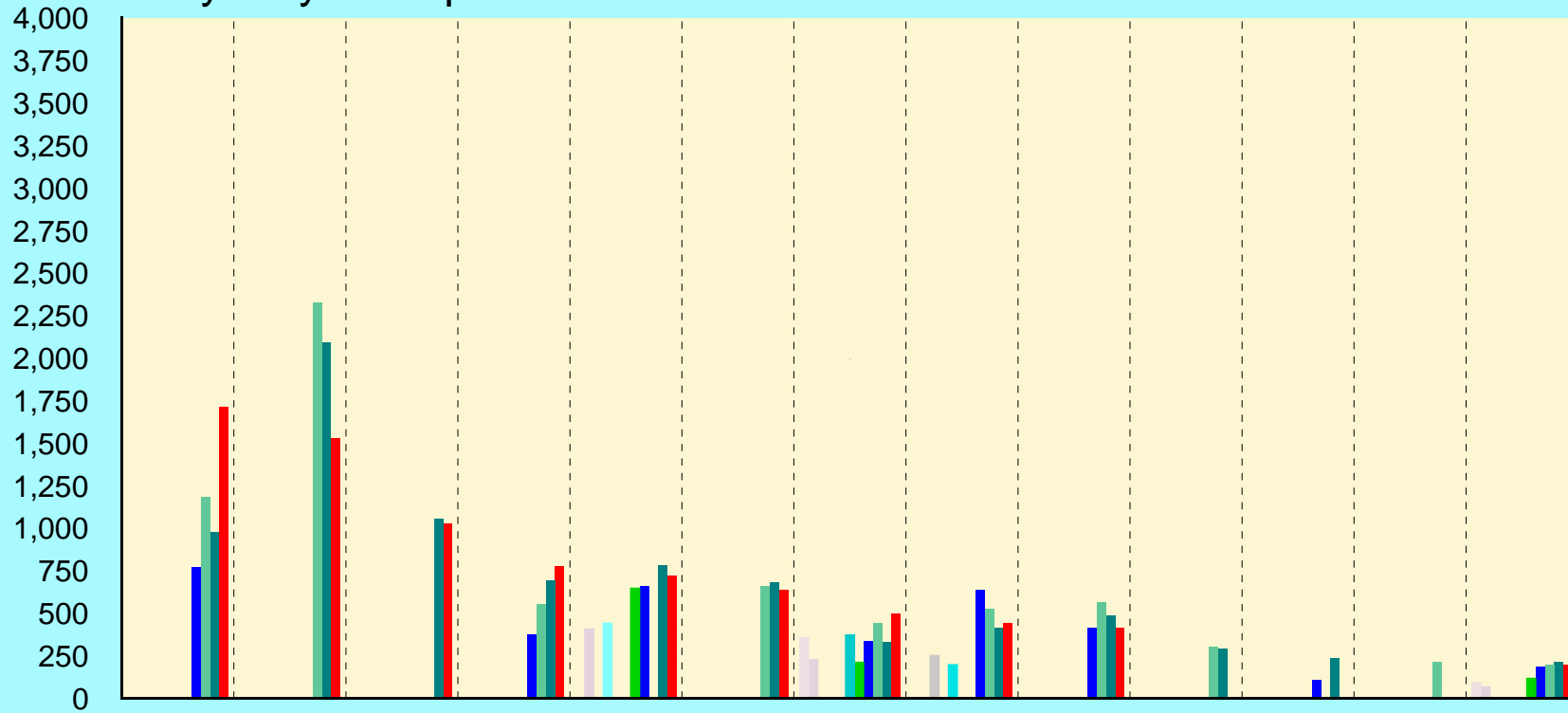
Daily Bicycle Trips



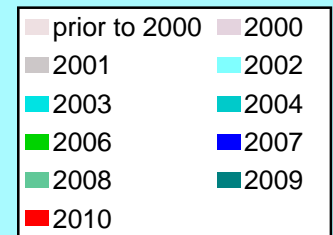
Extrapolated from 2-hour peak counts

Daily Bicycle Traffic: Northwest Portland (not incl. Central City) 2010 Counts Compared to Previous Years

Daily Bicycle Trips

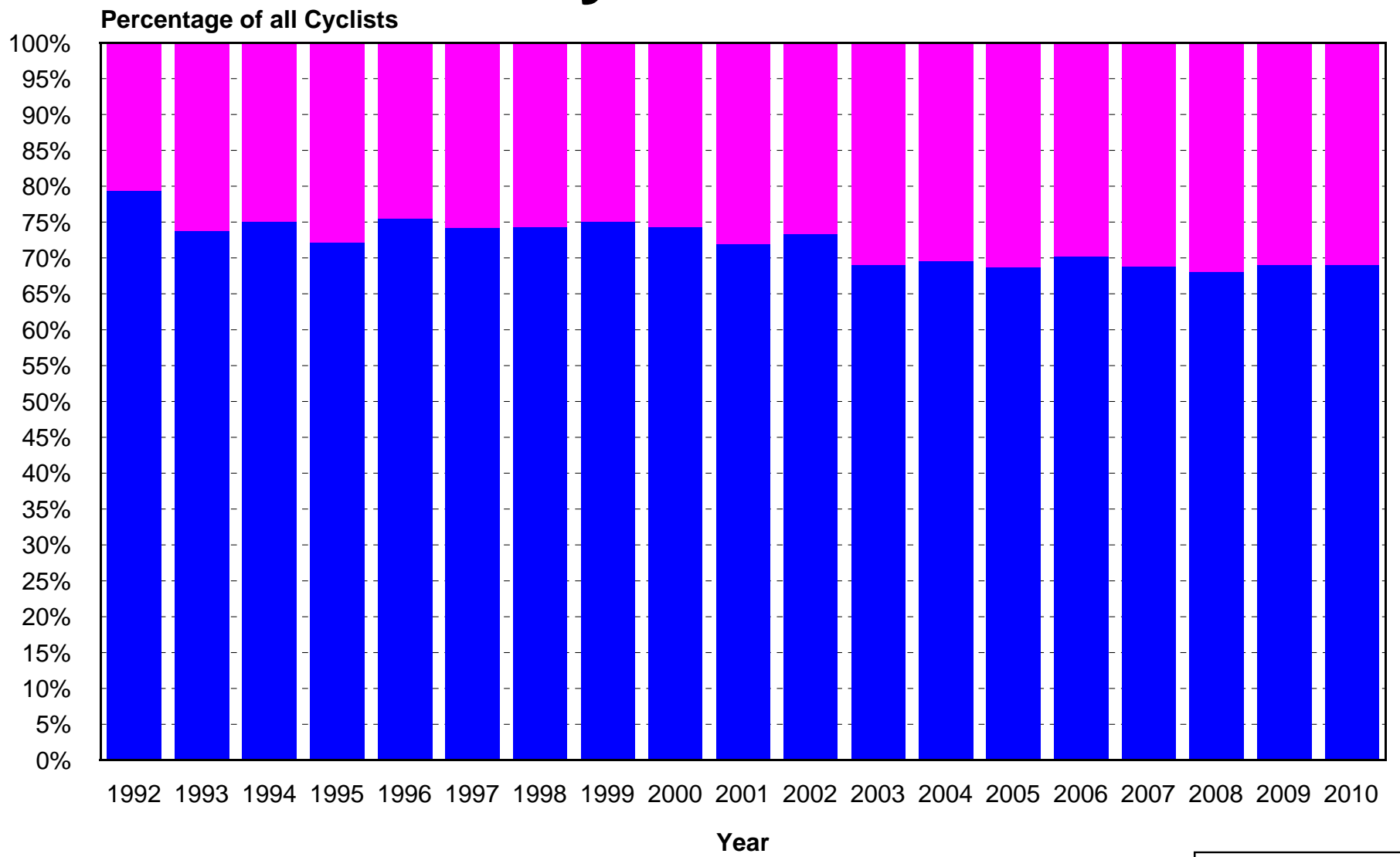


Location



Extrapolated from 2-hour peak counts

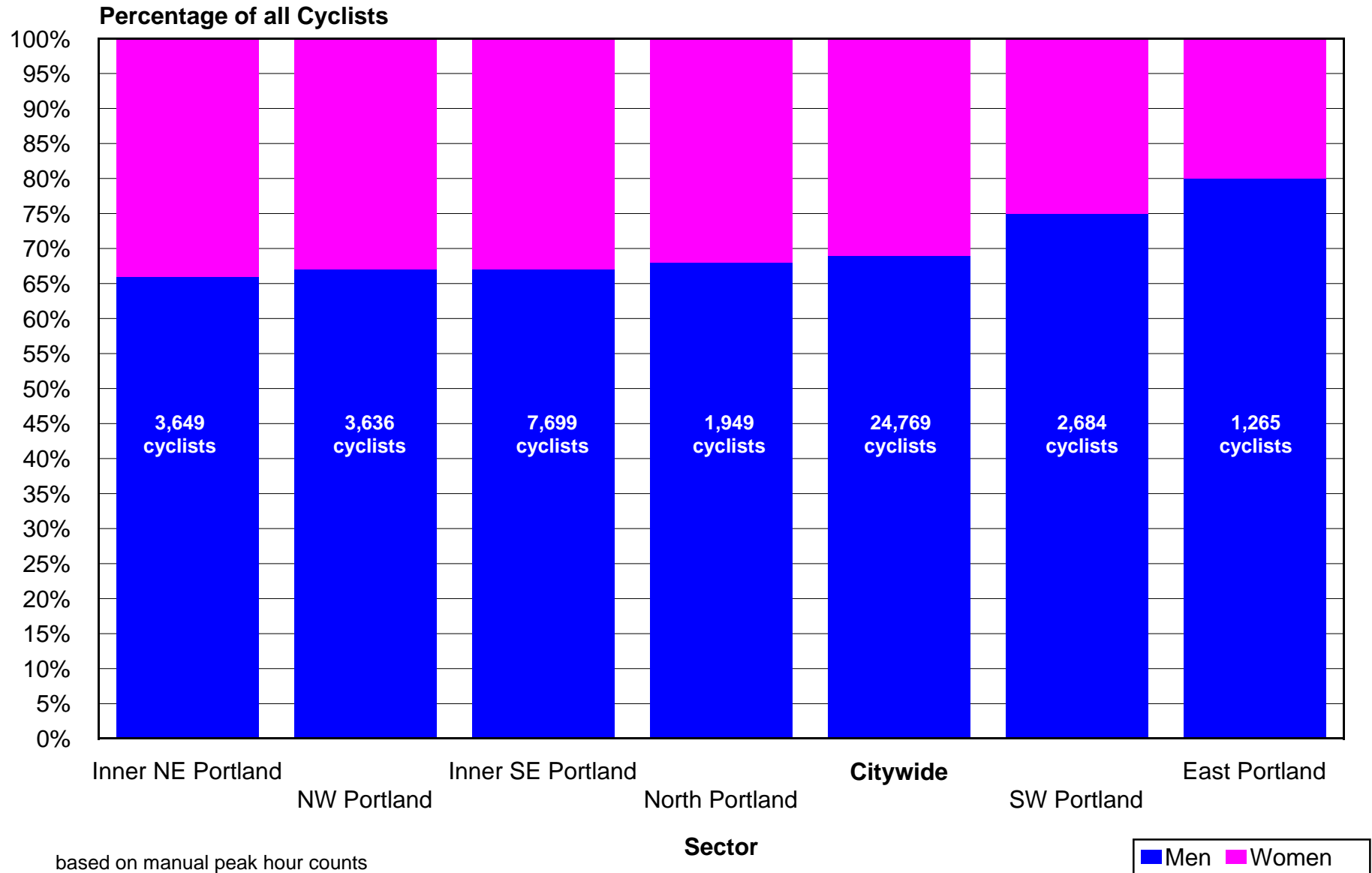
City of Portland Bicycle Counts by Year By Gender



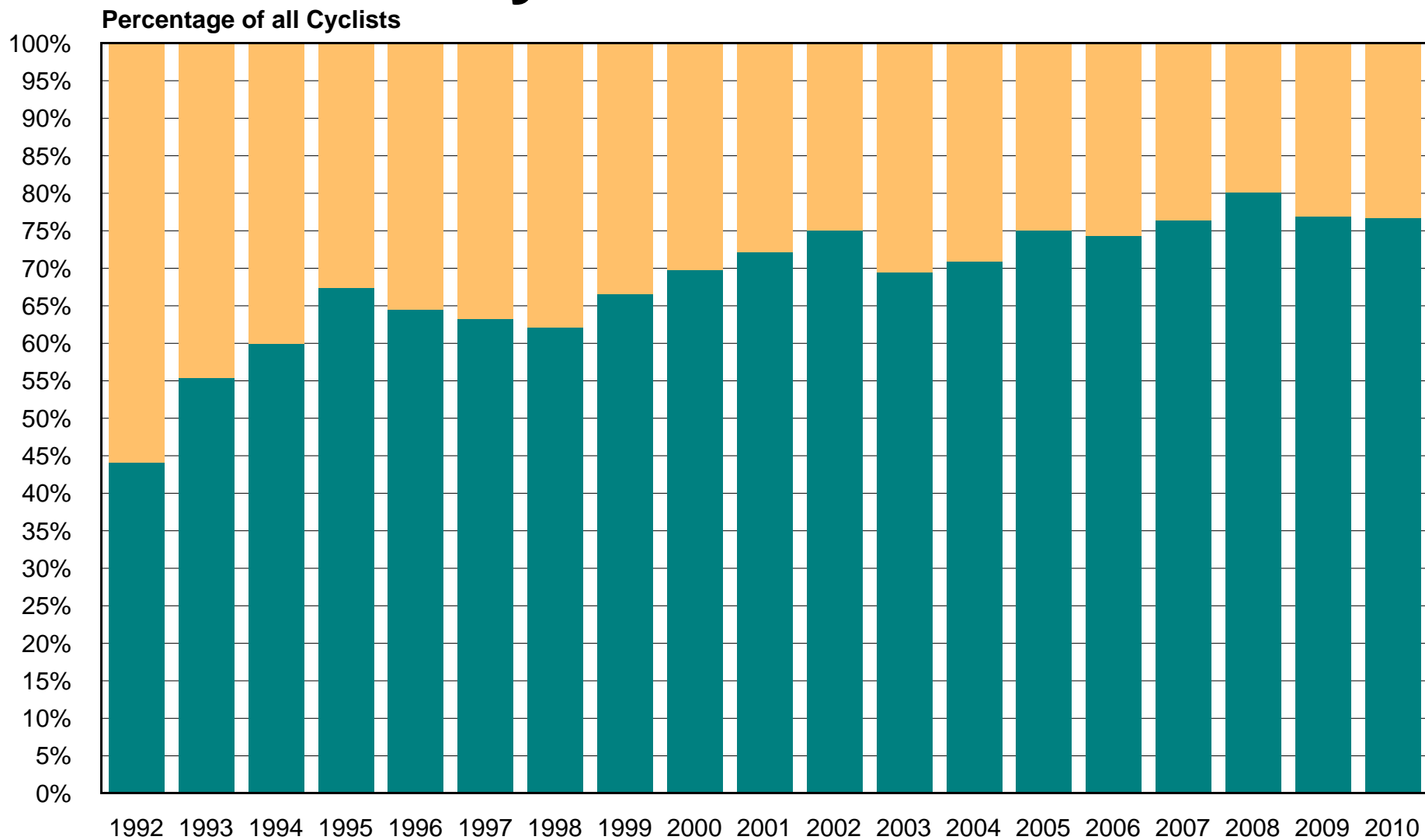
based on manual peak hour counts

City of Portland Bicycle Counts by Sector 2010

By Gender



City of Portland Bicycle Counts by Year By Helmet Use

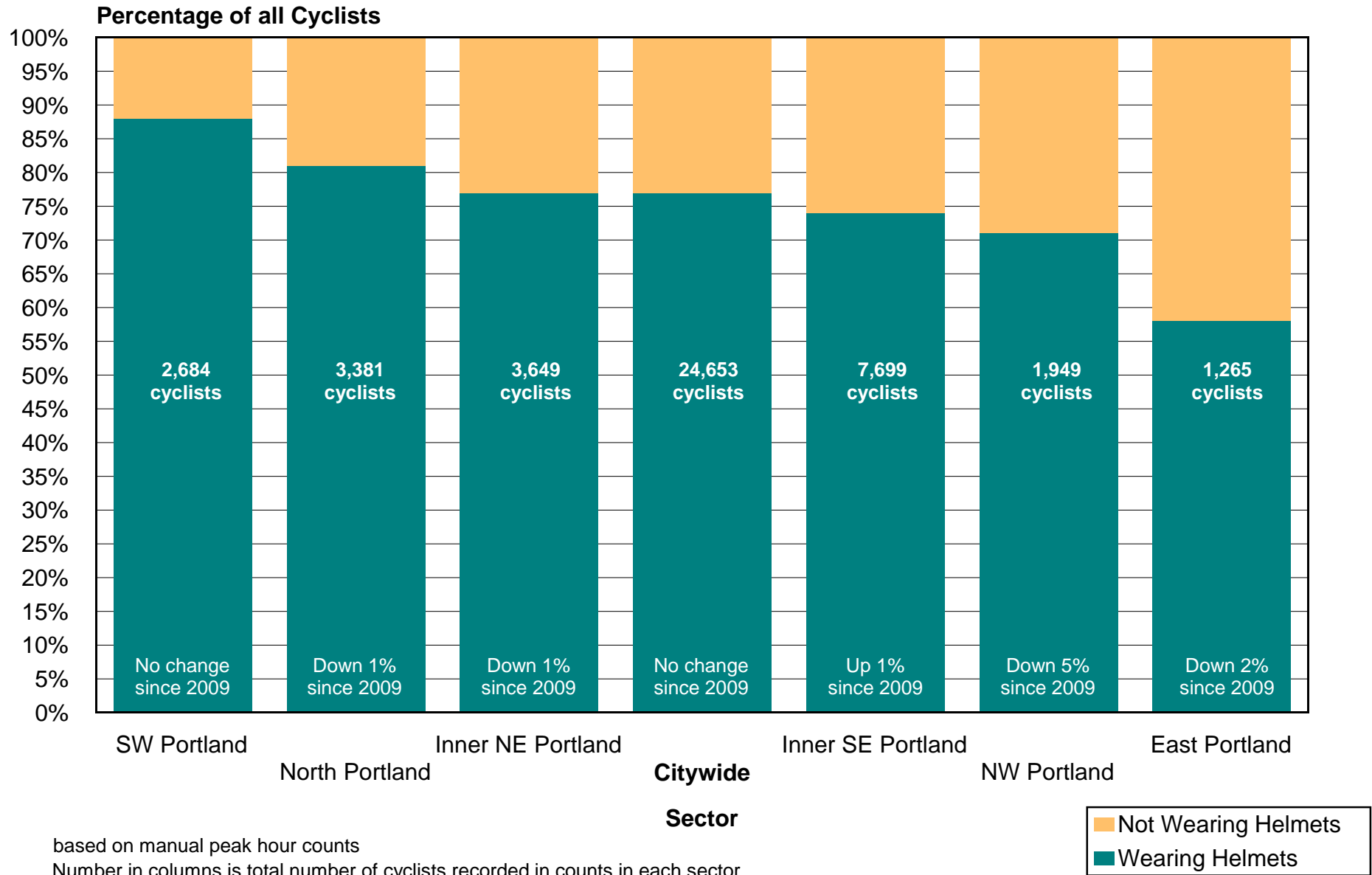


based on manual peak hour counts

Year

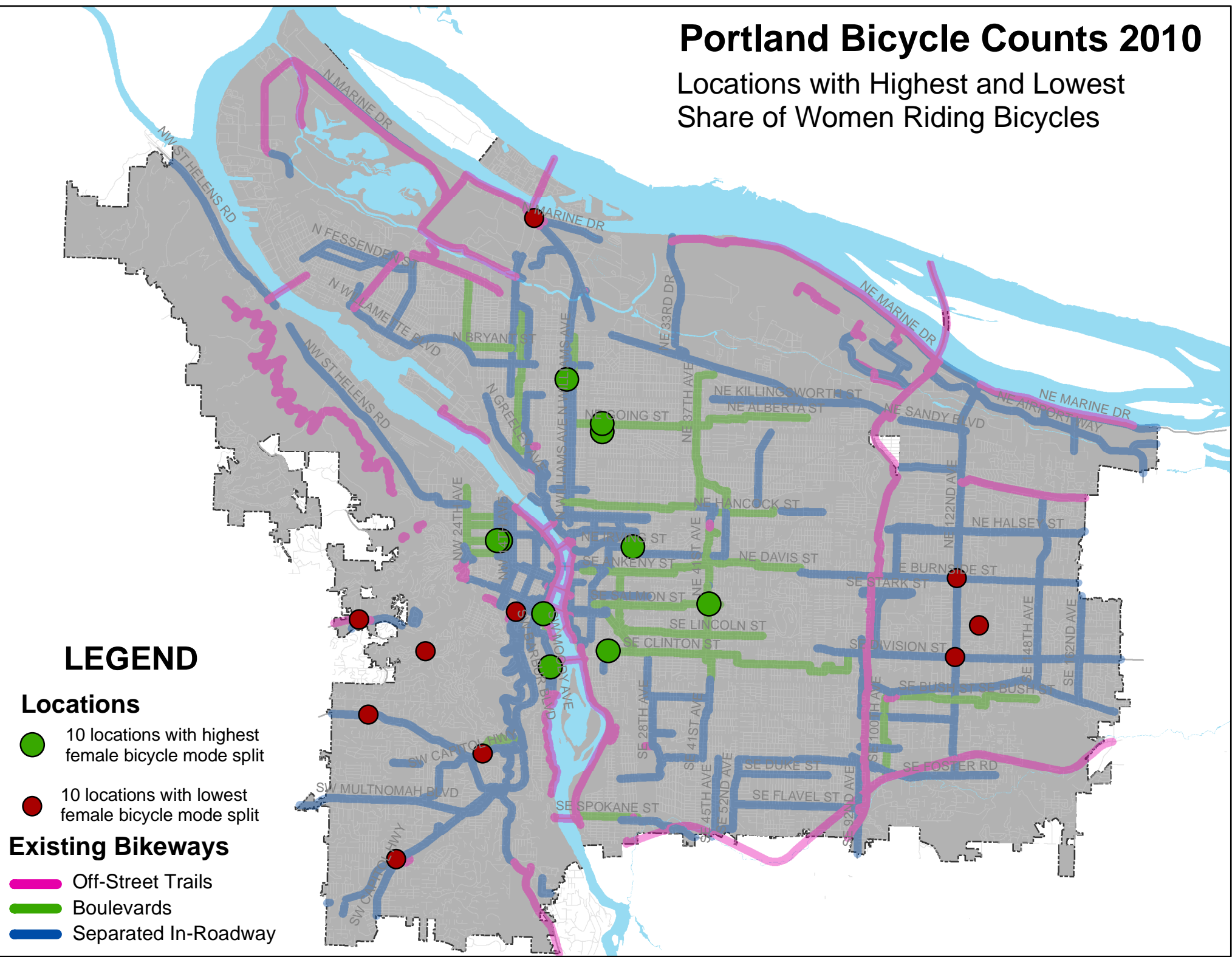


City of Portland Bicycle Counts by Sector 2010 By Helmet Use





Portland Bicycle Counts 2010

Locations with Highest and Lowest Share of Women Riding Bicycles






LEGEND

Locations

-  10 locations with highest female bicycle mode split
-  10 locations with lowest female bicycle mode split

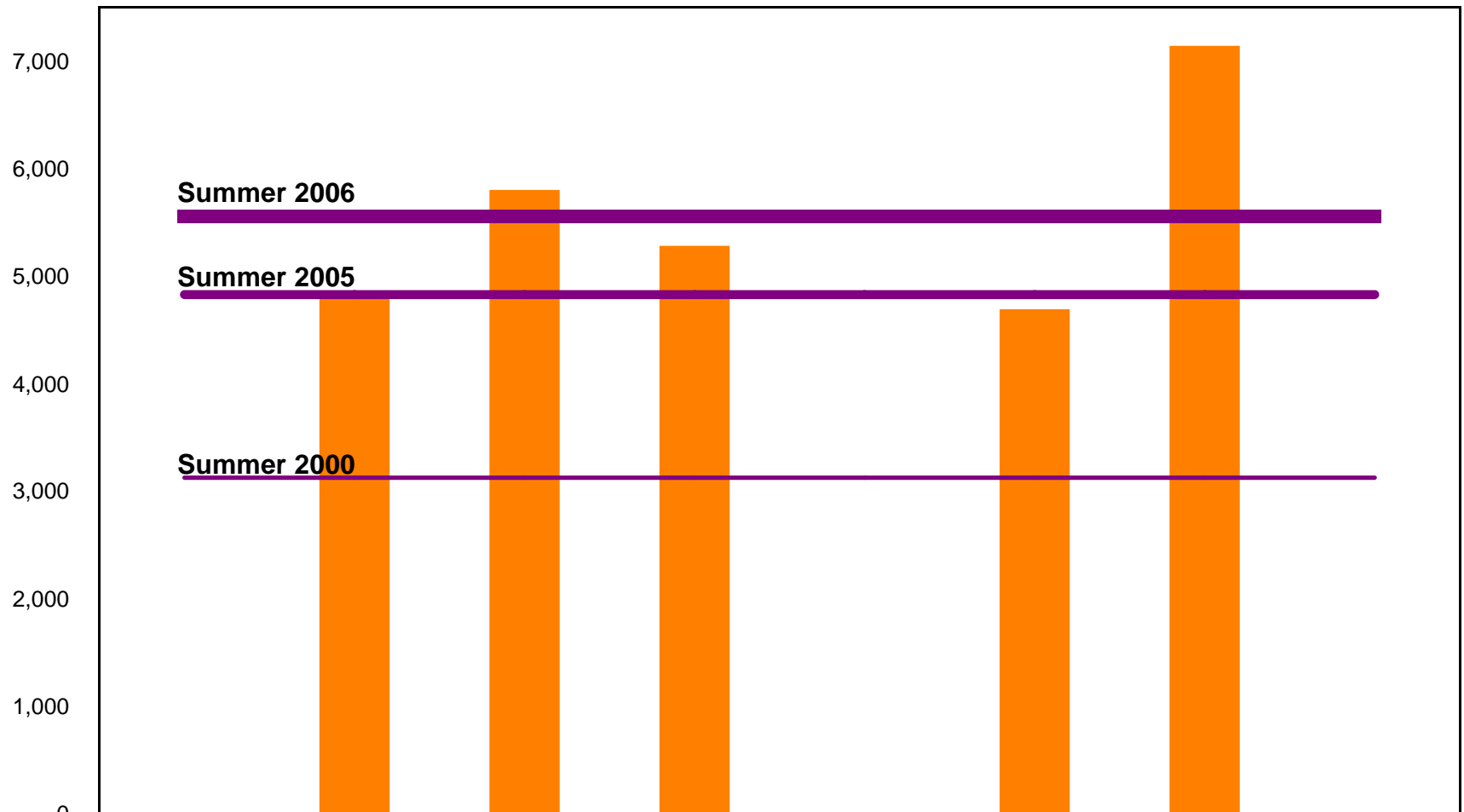
Existing Bikeways

-  Off-Street Trails
-  Boulevards
-  Separated In-Roadway

Summer and Winter Comparison of Bicycle Trips

2010 Hawthorne Bridge Counts Compared to Past Peaks

Daily Trips



Hawthorne 

January

4,794

February

5,792

March

5,273

May

4,683

Summer
Average

7,133

City of Portland Bicycle Counts by Year Gender and Helmet Use

Citywide

	Male Cyclists			Female Cyclists			Percentages									Based on			
	Male Cyclists		Total	Female Cyclists		Total	Male Cyclists			Female Cyclists			All Cyclists		Male Cyclists as % of all cyclists		Female Cyclists as % of all cyclists		
	w/ helmets	w/o helmets		w/ helmets	w/o helmets		Total	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets		w/ helmets	w/o helmets	w/ helmets
1992	153	205	358	46	47	93	43%	57%	79%	49%	51%	21%	44%	56%	34%	45%	10%	10%	451 cyclists
1993	229	211	440	101	55	156	52%	48%	74%	65%	35%	26%	55%	45%	38%	35%	17%	9%	596 cyclists
1994	75	54	129	28	15	43	58%	42%	75%	65%	35%	25%	60%	40%	44%	31%	16%	9%	172 cyclists
1995	842	401	1,243	320	162	482	68%	32%	72%	66%	34%	28%	67%	33%	49%	23%	19%	9%	1,725 cyclists
1996	904	548	1,452	335	135	470	62%	38%	76%	71%	29%	24%	64%	36%	47%	29%	17%	7%	1,922 cyclists
1997	2,126	1,428	3,554	900	337	1,237	60%	40%	74%	73%	27%	26%	63%	37%	44%	30%	19%	7%	4,791 cyclists
1998	2,229	1,518	3,747	901	395	1,296	59%	41%	74%	70%	30%	26%	62%	38%	44%	30%	18%	8%	5,043 cyclists
1999	1,978	1,109	3,087	764	264	1,028	64%	36%	75%	74%	26%	25%	67%	33%	48%	27%	19%	6%	4,115 cyclists
2000	2,364	1,111	3,475	899	301	1,200	68%	32%	74%	75%	25%	26%	70%	30%	51%	24%	19%	6%	4,675 cyclists
2001	3,734	1,618	5,352	1,632	457	2,089	70%	30%	72%	78%	22%	28%	72%	28%	50%	22%	22%	6%	7,441 cyclists
2002	363	126	489	138	40	178	74%	26%	73%	78%	22%	27%	75%	25%	54%	19%	21%	6%	667 cyclists
2003	1,854	891	2,745	910	322	1,232	68%	32%	69%	74%	26%	31%	69%	31%	47%	22%	23%	8%	3,977 cyclists
2004	1,401	637	2,038	674	216	890	69%	31%	70%	76%	24%	30%	71%	29%	48%	22%	23%	7%	2,928 cyclists
2005	1,064	393	1,457	528	136	664	73%	27%	69%	80%	20%	31%	75%	25%	50%	19%	25%	6%	2,121 cyclists
2006	4,316	1,703	6,019	2,048	502	2,550	72%	28%	70%	80%	20%	30%	74%	26%	50%	20%	24%	6%	8,569 cyclists
2007	6,649	2,366	9,015	3,369	724	4,093	74%	26%	69%	82%	18%	31%	76%	24%	51%	18%	26%	6%	13,108 cyclists
2008	12,944	3,784	16,728	6,754	1,108	7,862	77%	23%	68%	86%	14%	32%	80%	20%	53%	15%	27%	5%	24,590 cyclists
2009	11,340	3,887	15,227	5,619	1,219	6,838	74%	26%	69%	82%	18%	31%	77%	23%	51%	18%	25%	6%	22,065 cyclists
2010	12,436	4,422	16,858	6,332	1,324	7,656	74%	26%	69%	83%	17%	31%	77%	23%	51%	18%	26%	5%	24,514 cyclists
Total	54,565	21,990	76,555	25,966	6,435	32,401	71%	29%	70%	80%	20%	30%	74%	26%	50%	20%	24%	6%	108,956 cyclists

City of Portland Bicycle Counts by Year Gender and Helmet Use

North Portland

	Male Cyclists			Female Cyclists			Percentages									Male Cyclists as % of all cyclists		Female Cyclists as % of all cyclists		Based on	
	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets	Total	Male Cyclists			Female Cyclists			All Cyclists		w/ helmets	w/o helmets	w/ helmets	w/o helmets	w/ helmets		w/o helmets
							w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets							
1992	62	45	107	16	6	22	58%	42%	83%	73%	27%	17%	60%	40%	48%	35%	12%	5%	129 cyclists		
1993	0	0	0	0	0	0													0 cyclists		
1994	0	0	0	0	0	0													0 cyclists		
1995	40	19	59	19	2	21	68%	32%	74%	90%	10%	26%	74%	26%	50%	24%	24%	3%	80 cyclists		
1996	0	0	0	0	0	0													0 cyclists		
1997	156	146	302	71	29	100	52%	48%	75%	71%	29%	25%	56%	44%	39%	36%	18%	7%	402 cyclists		
1998	197	119	316	92	40	132	62%	38%	71%	70%	30%	29%	65%	35%	44%	27%	21%	9%	448 cyclists		
1999	170	128	298	60	28	88	57%	43%	77%	68%	32%	23%	60%	40%	44%	33%	16%	7%	386 cyclists		
2000	403	133	536	159	41	200	75%	25%	73%	80%	21%	27%	76%	24%	55%	18%	22%	6%	736 cyclists		
2001	821	375	1,196	359	91	450	69%	31%	73%	80%	20%	27%	72%	28%	50%	23%	22%	6%	1,646 cyclists		
2002	88	28	116	63	10	73	76%	24%	61%	86%	14%	39%	80%	20%	47%	15%	33%	5%	189 cyclists		
2003	301	161	462	153	42	195	65%	35%	70%	78%	22%	30%	69%	31%	46%	25%	23%	6%	657 cyclists		
2004	148	65	213	69	32	101	69%	31%	68%	68%	32%	32%	69%	31%	47%	21%	22%	10%	314 cyclists		
2005	0	0	0	0	0	0													0 cyclists		
2006	1,197	349	1,546	694	112	806	77%	23%	66%	86%	14%	34%	80%	20%	51%	15%	30%	5%	2,352 cyclists		
2007	1,058	361	1,419	543	95	638	75%	25%	69%	85%	15%	31%	78%	22%	51%	18%	26%	5%	2,057 cyclists		
2008	3,762	822	4,584	2,238	272	2,510	82%	18%	65%	89%	11%	35%	85%	15%	53%	12%	32%	4%	7,094 cyclists		
2009	1,615	411	2,026	873	119	992	80%	20%	67%	88%	12%	33%	82%	18%	54%	14%	29%	4%	3,018 cyclists		
2010	1,823	476	2,299	929	153	1,082	79%	21%	68%	86%	14%	32%	81%	19%	54%	14%	27%	5%	3,381 cyclists		
Total	11,841	3,638	15,479	6,338	1,072	7,410	76%	24%	68%	86%	14%	32%	79%	21%	52%	16%	28%	5%	22,889 cyclists		

Northwest Portland

	Male Cyclists			Female Cyclists			Percentages									Male Cyclists as % of all cyclists		Female Cyclists as % of all cyclists		Based on	
	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets	Total	Male Cyclists			Female Cyclists			All Cyclists		w/ helmets	w/o helmets	w/ helmets	w/o helmets	w/ helmets		w/o helmets
							w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets							
1992	4	18	22	4	5	9	18%	82%	71%	44%	56%	29%	26%	74%	13%	58%	13%	16%	31 cyclists		
1993	52	40	92	22	14	36	57%	43%	72%	61%	39%	28%	58%	42%	41%	31%	17%	11%	128 cyclists		
1994	0	0	0	0	0	0													0 cyclists		
1995	59	63	122	15	11	26	48%	52%	82%	58%	42%	18%	50%	50%	40%	43%	10%	7%	148 cyclists		
1996	19	28	47	12	7	19	40%	60%	71%	63%	37%	29%	47%	53%	29%	42%	18%	11%	66 cyclists		
1997	231	233	464	82	43	125	50%	50%	79%	66%	34%	21%	53%	47%	39%	40%	14%	7%	589 cyclists		
1998	180	173	353	63	39	102	51%	49%	78%	62%	38%	22%	53%	47%	40%	38%	14%	9%	455 cyclists		
1999	200	161	361	75	33	108	55%	45%	77%	69%	31%	23%	59%	41%	43%	34%	16%	7%	469 cyclists		
2000	270	207	477	84	72	156	57%	43%	75%	54%	46%	25%	56%	44%	43%	33%	13%	11%	633 cyclists		
2001	304	140	444	133	40	173	68%	32%	72%	77%	23%	28%	71%	29%	49%	23%	22%	6%	617 cyclists		
2002	150	80	230	54	29	83	65%	35%	73%	65%	35%	27%	65%	35%	48%	26%	17%	9%	313 cyclists		
2003	18	9	27	9	4	13	67%	33%	68%	69%	31%	33%	68%	33%	45%	23%	23%	10%	40 cyclists		
2004	66	52	118	16	8	24	56%	44%	83%	67%	33%	17%	58%	42%	46%	37%	11%	6%	142 cyclists		
2005	35	29	64	22	2	24	55%	45%	73%	92%	8%	27%	65%	35%	40%	33%	25%	2%	88 cyclists		
2006	87	53	140	31	26	57	62%	38%	71%	54%	46%	29%	60%	40%	44%	27%	16%	13%	197 cyclists		
2007	322	133	455	150	51	201	71%	29%	69%	75%	25%	31%	72%	28%	49%	20%	23%	8%	656 cyclists		
2008	867	257	1,124	387	86	473	77%	23%	70%	82%	18%	30%	79%	21%	54%	16%	24%	5%	1,597 cyclists		
2009	870	324	1,194	381	77	458	73%	27%	72%	83%	17%	28%	76%	24%	53%	20%	23%	5%	1,652 cyclists		
2010	898	411	1,309	489	151	640	69%	31%	67%	76%	24%	33%	71%	29%	46%	21%	25%	8%	1,949 cyclists		
Total	4,632	2,411	7,043	2,029	698	2,727	66%	34%	72%	74%	26%	28%	68%	32%	47%	25%	21%	7%	9,770 cyclists		

City of Portland Bicycle Counts by Year Gender and Helmet Use

Southwest Portland

	Male Cyclists			Female Cyclists			Percentages									Male Cyclists as % of all cyclists		Female Cyclists as % of all cyclists		Based on	
	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets	Total	Male Cyclists			Female Cyclists			All Cyclists		w/ helmets	w/o helmets	w/ helmets	w/o helmets	w/ helmets		w/o helmets
							w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets							
1992	16	59	75	9	18	27	21%	79%	74%	33%	67%	26%	25%	75%	16%	58%	9%	18%	102 cyclists		
1993	0	0	0	0	0	0													0 cyclists		
1994	8	16	24	4	6	10	33%	67%	71%	40%	60%	29%	35%	65%	24%	47%	12%	18%	34 cyclists		
1995	130	66	196	71	23	94	66%	34%	68%	76%	24%	32%	69%	31%	45%	23%	24%	8%	290 cyclists		
1996	179	35	214	49	8	57	84%	16%	79%	86%	14%	21%	84%	16%	66%	13%	18%	3%	271 cyclists		
1997	405	192	597	162	30	192	68%	32%	76%	84%	16%	24%	72%	28%	51%	24%	21%	4%	789 cyclists		
1998	471	189	660	172	43	215	71%	29%	75%	80%	20%	25%	73%	27%	54%	22%	20%	5%	875 cyclists		
1999	273	90	363	89	20	109	75%	25%	77%	82%	18%	23%	77%	23%	58%	19%	19%	4%	472 cyclists		
2000	374	108	482	113	28	141	78%	22%	77%	80%	20%	23%	78%	22%	60%	17%	18%	4%	623 cyclists		
2001	92	36	128	45	1	46	72%	28%	74%	98%	2%	26%	79%	21%	53%	21%	26%	1%	174 cyclists		
2002	125	18	143	21	1	22	87%	13%	87%	95%	5%	13%	88%	12%	76%	11%	13%	1%	165 cyclists		
2003	180	52	232	57	14	71	78%	22%	77%	80%	20%	23%	78%	22%	59%	17%	19%	5%	303 cyclists		
2004	0	0	0	0	0	0													0 cyclists		
2005	0	0	0	0	0	0													0 cyclists		
2006	695	85	780	220	13	233	89%	11%	77%	94%	6%	23%	90%	10%	69%	8%	22%	1%	1,013 cyclists		
2007	1,892	441	2,333	945	97	1,042	81%	19%	69%	91%	9%	31%	84%	16%	56%	13%	28%	3%	3,375 cyclists		
2008	3,010	740	3,750	1,385	136	1,521	80%	20%	71%	91%	9%	29%	83%	17%	57%	14%	26%	3%	5,271 cyclists		
2008*	1,753	317	2,070	747	64	811	85%	15%	72%	92%	8%	28%	87%	13%	61%	11%	26%	2%	2,881 cyclists		
2009	3,371	867	4,238	1,475	222	1,697	80%	20%	71%	87%	13%	29%	82%	18%	57%	15%	25%	4%	5,935 cyclists		
2009*	1,588	242	1,830	584	53	637	87%	13%	74%	92%	8%	26%	88%	12%	64%	10%	24%	2%	2,467 cyclists		
2010	3,703	990	4,693	1,646	232	1,878	79%	21%	71%	88%	12%	29%	81%	19%	56%	15%	25%	4%	6,571 cyclists		
2010*	1,763	257	2,020	605	59	664	87%	13%	75%	91%	9%	25%	88%	12%	66%	10%	23%	2%	2,684 cyclists		
Total	14,924	3,984	18,908	6,463	892	7,355	79%	21%	72%	88%	12%	28%	81%	19%	57%	15%	25%	3%	26,263 cyclists		

*not including Central City

East Portland

	Male Cyclists			Female Cyclists			Percentages									Male Cyclists as % of all cyclists		Female Cyclists as % of all cyclists		Based on	
	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets	Total	Male Cyclists			Female Cyclists			All Cyclists		w/ helmets	w/o helmets	w/ helmets	w/o helmets	w/ helmets		w/o helmets
							w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets							
1992	0	0	0	0	0	0														0 cyclists	
1993	0	0	0	0	0	0														0 cyclists	
1994	0	0	0	0	0	0														0 cyclists	
1995	0	0	0	0	0	0														0 cyclists	
1996	0	0	0	0	0	0														0 cyclists	
1997	0	0	0	0	0	0														0 cyclists	
1998	0	0	0	0	0	0														0 cyclists	
1999	0	0	0	0	0	0														0 cyclists	
2000	0	0	0	0	0	0														0 cyclists	
2001	0	0	0	0	0	0														0 cyclists	
2002	0	0	0	0	0	0														0 cyclists	
2003	0	0	0	0	0	0														0 cyclists	
2004	0	0	0	0	0	0														0 cyclists	
2005	0	0	0	0	0	0														0 cyclists	
2006	71	153	224	16	18	34	32%	68%	87%	47%	53%	13%	34%	66%	28%	59%	6%	7%	258 cyclists		
2007	241	187	428	61	37	98	56%	44%	81%	62%	38%	19%	57%	43%	46%	36%	12%	7%	526 cyclists		
2008	511	337	848	150	45	195	60%	40%	81%	77%	23%	19%	63%	37%	49%	32%	14%	4%	1,043 cyclists		
2009	506	372	878	143	57	200	58%	42%	81%	72%	29%	19%	60%	40%	47%	35%	13%	5%	1,078 cyclists		
2010	551	467	1,018	178	69	247	54%	46%	80%	72%	28%	20%	58%	42%	44%	37%	14%	5%	1,265 cyclists		
Total	1,880	1,516	3,396	548	226	774	55%	45%	81%	71%	29%	19%	58%	42%	45%	36%	13%	5%	4,170 cyclists		

City of Portland Bicycle Counts by Year Gender and Helmet Use

Inner NE Portland

	Male Cyclists			Female Cyclists			Percentages									Male Cyclists as % of all cyclists		Female Cyclists as % of all cyclists		Based on
	w/ helmets	w/o helmets	Total	Male Cyclists			Female Cyclists			All Cyclists		w/ helmets	w/o helmets	w/ helmets	w/o helmets	w/ helmets	w/o helmets			
				w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets									
1992	70	71	141	17	16	33	50%	50%	81%	52%	48%	19%	50%	50%	40%	41%	10%	9%	174 cyclists	
1993	177	171	348	79	41	120	51%	49%	74%	66%	34%	26%	55%	45%	38%	37%	17%	9%	468 cyclists	
1994	67	38	105	24	9	33	64%	36%	76%	73%	27%	24%	66%	34%	49%	28%	17%	7%	138 cyclists	
1995	311	110	421	124	66	190	74%	26%	69%	65%	35%	31%	71%	29%	51%	18%	20%	11%	611 cyclists	
1996	412	301	713	128	79	207	58%	42%	78%	62%	38%	23%	59%	41%	45%	33%	14%	9%	920 cyclists	
1997	736	517	1,253	335	124	459	59%	41%	73%	73%	27%	27%	63%	37%	43%	30%	20%	7%	1,712 cyclists	
1998	929	770	1,699	393	180	573	55%	45%	75%	69%	31%	25%	58%	42%	41%	34%	17%	8%	2,272 cyclists	
1999	656	367	1,023	254	97	351	64%	36%	74%	72%	28%	26%	66%	34%	48%	27%	18%	7%	1,374 cyclists	
2000	627	367	994	262	86	348	63%	37%	74%	75%	25%	26%	66%	34%	47%	27%	20%	6%	1,342 cyclists	
2001	1,416	690	2,106	615	177	792	67%	33%	73%	78%	22%	27%	70%	30%	49%	24%	21%	6%	2,898 cyclists	
2002	0	0	0	0	0	0													0 cyclists	
2003	402	272	674	233	126	359	60%	40%	65%	65%	35%	35%	61%	39%	39%	26%	23%	12%	1,033 cyclists	
2004	246	134	380	116	47	163	65%	35%	70%	71%	29%	30%	67%	33%	45%	25%	21%	9%	543 cyclists	
2005	0	0	0	0	0	0													0 cyclists	
2006	927	494	1,421	464	140	604	65%	35%	70%	77%	23%	30%	69%	31%	46%	24%	23%	7%	2,025 cyclists	
2007	985	362	1,347	540	134	674	73%	27%	67%	80%	20%	33%	75%	25%	49%	18%	27%	7%	2,021 cyclists	
2008	1,408	480	1,888	839	181	1,020	75%	25%	65%	82%	18%	35%	77%	23%	48%	17%	29%	6%	2,908 cyclists	
2009	1,452	469	1,921	878	190	1,068	76%	24%	64%	82%	18%	36%	78%	22%	49%	16%	29%	6%	2,989 cyclists	
2010	1,794	617	2,411	1,028	210	1,238	74%	26%	66%	83%	17%	34%	77%	23%	49%	17%	28%	6%	3,649 cyclists	
Total	12,615	6,230	18,845	6,329	1,903	8,232	67%	33%	70%	77%	23%	30%	70%	30%	47%	23%	23%	7%	27,077 cyclists	

Inner SE Portland

	Male Cyclists			Female Cyclists			Percentages									Male Cyclists as % of all cyclists		Female Cyclists as % of all cyclists		Based on
	w/ helmets	w/o helmets	Total	Male Cyclists			Female Cyclists			All Cyclists		w/ helmets	w/o helmets	w/ helmets	w/o helmets	w/ helmets	w/o helmets			
				w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets	Total	w/ helmets	w/o helmets									
1992	1	12	13	0	2	2	8%	92%	87%	0%	100%	13%	7%	93%	7%	80%	0%	13%	15 cyclists	
1993	0	0	0	0	0	0													0 cyclists	
1994	0	0	0	0	0	0													0 cyclists	
1995	302	143	445	91	60	151	68%	32%	75%	60%	40%	25%	66%	34%	51%	24%	15%	10%	596 cyclists	
1996	294	184	478	146	41	187	62%	38%	72%	78%	22%	28%	66%	34%	44%	28%	22%	6%	665 cyclists	
1997	598	340	938	250	111	361	64%	36%	72%	69%	31%	28%	65%	35%	46%	26%	19%	9%	1,299 cyclists	
1998	452	267	719	181	93	274	63%	37%	72%	66%	34%	28%	64%	36%	46%	27%	18%	9%	993 cyclists	
1999	679	363	1,042	286	86	372	65%	35%	74%	77%	23%	26%	68%	32%	48%	26%	20%	6%	1,414 cyclists	
2000	690	296	986	281	74	355	70%	30%	74%	79%	21%	26%	72%	28%	51%	22%	21%	6%	1,341 cyclists	
2001	1,101	377	1,478	480	148	628	74%	26%	70%	76%	24%	30%	75%	25%	52%	18%	23%	7%	2,106 cyclists	
2002	0	0	0	0	0	0													0 cyclists	
2003	953	397	1,350	458	136	594	71%	29%	69%	77%	23%	31%	73%	27%	49%	20%	24%	7%	1,944 cyclists	
2004	941	386	1,327	473	129	602	71%	29%	69%	79%	21%	31%	73%	27%	49%	20%	25%	7%	1,929 cyclists	
2005	1,029	364	1,393	506	134	640	74%	26%	69%	79%	21%	31%	76%	24%	51%	18%	25%	7%	2,033 cyclists	
2006	1,339	569	1,908	623	193	816	70%	30%	70%	76%	24%	30%	72%	28%	49%	21%	23%	7%	2,724 cyclists	
2007	2,151	882	3,033	1,130	310	1,440	71%	29%	68%	78%	22%	32%	73%	27%	48%	20%	25%	7%	4,473 cyclists	
2008	3,386	1,148	4,534	1,755	388	2,143	75%	25%	68%	82%	18%	32%	77%	23%	51%	17%	26%	6%	6,677 cyclists	
2009	3,526	1,444	4,970	1,869	554	2,423	71%	29%	67%	77%	23%	33%	73%	27%	48%	20%	25%	7%	7,393 cyclists	
2010	3,667	1,461	5,128	2,062	509	2,571	72%	28%	67%	80%	20%	33%	74%	26%	48%	19%	27%	7%	7,699 cyclists	
Total	21,109	8,633	29,742	10,591	2,968	13,559	71%	29%	69%	78%	22%	31%	73%	27%	49%	20%	24%	7%	43,301 cyclists	

Bicycle And Auto Counts on the Four Main Bicycle-Friendly Downtown Bridges 1991-2010

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Broadway																				
bikes	495	755	735	690	527	950	1,205	1,854	1,476	1,405	1,680	1,712	1,683		2,081	2,856	3,872	4,315	3,825	5,291
autos	30,215	30,215	30,034	30,215	30,395	31,630	31,630	32,864	32,420	24,375	26,946	27,262	27,261	27,261	27,259	27,259	27,259	27,259	28,395	28,395
% bikes of all vehicles	2%	2%	2%	2%	2%	3%	4%	5%	4%	5%	6%	6%	6%	0%	7%	9%	12%	14%	12%	16%
auto change since 1991		0%	-1%	0%	1%	5%	5%	9%	7%	-19%	-11%	-10%	-10%	-10%	-10%	-10%	-10%	-10%	-6%	-6%
bike increase since 1991		53%	48%	39%	6%	92%	143%	275%	198%	184%	239%	246%	240%	-100%	320%	477%	682%	772%	673%	969%
Annual % change		53%	-3%	-6%	-24%	80%	27%	54%	-20%	-5%	20%	2%	-2%	-100%	24%	37%	36%	11%	-11%	38%
Steel																				
bikes	230	230	220	220	200	350	475	460	360	410	1,250	1,891	1,860	3,482	2,112	2,373	2,943	2,982	3,101	3,287
autos	18,740	18,740	19,761	18,740	18,740	17,719	15,827	16,717	18,279	17,780	19,121	17,264	17,264	17,264	17,264	17,264	17,264	17,264	14,152	15,708
% bikes of all vehicles	1%	1%	1%	1%	1%	2%	3%	3%	2%	2%	6%	10%	10%	17%	11%	12%	15%	15%	18%	17%
auto change since 1991		0%	5%	0%	0%	-5%	-16%	-11%	-2%	-5%	2%	-8%	-8%	-8%	-8%	-8%	-8%	-8%	-24%	-16%
bike increase since 1991		0%	-4%	-4%	-13%	52%	107%	100%	57%	78%	443%	722%	709%	1414%	818%	932%	1180%	1197%	1248%	1329%
Annual % change		0%	-4%	0%	-9%	75%	36%	-3%	-22%	14%	205%	51%	-2%	87%	14%	12%	24%	1%	4%	6%
Burnside																				
bikes	740	1,075	1,010	980	620	1,065	1,375	905	920	1,080	965	965	965	965	1,170	1,260	1,325	2,035	1,760	1,865
autos	35,209	37,618	37,618	37,618	37,618	37,618	40,027	45,060	47,564	45,846	49,247	40,884	39,985	39,985	39,085	39,085	39,085	39,085	33,184	36,135
% bikes of all vehicles	2%	3%	3%	3%	2%	3%	3%	2%	2%	2%	2%	2%	2%	2%	3%	3%	3%	5%	5%	5%
auto change since 1991		7%	7%	7%	7%	7%	14%	28%	35%	30%	40%	16%	14%	14%	11%	11%	11%	11%	-6%	3%
bike increase since 1991		45%	36%	32%	-16%	44%	86%	22%	24%	46%	30%	30%	30%	30%	58%	70%	79%	175%	138%	152%
Annual % change		45%	-6%	-3%	-37%	72%	29%	-34%	2%	17%	-11%	0%	0%	0%	21%	8%	5%	54%	-14%	6%
Hawthorne																				
bikes	1,390	1,500	1,920	1,940	1,910	2,165	2,170	2,471	3,154	3,125	3,729	3,682	4,055	4,428	4,829	5,557	6,423	7,379	7,063	7,133
autos	29,041	29,041	25,877	29,041	29,041	33,041	27,496	28,145	23,437	36,249	29,674	29,674	29,674	29,674	29,412	29,412	29,412	29,412	26,129	27,771
% bikes of all vehicles	5%	5%	7%	6%	6%	6%	7%	8%	12%	8%	11%	11%	12%	13%	14%	16%	18%	20%	21%	20%
auto change since 1991		0%	-11%	0%	0%	14%	-5%	-3%	-19%	25%	2%	2%	2%	2%	1%	1%	1%	1%	-10%	-4%
bike increase since 1991		8%	38%	40%	37%	56%	56%	78%	127%	125%	168%	165%	192%	219%	247%	300%	362%	431%	408%	413%
Annual % change		8%	28%	1%	-2%	13%	0%	14%	28%	-1%	19%	-1%	10%	9%	9%	15%	16%	15%	-4%	1%
All Bridges																				
bikes	2,855	3,560	3,885	3,830	3,257	4,530	5,225	5,690	5,910	6,020	7,624	8,250	8,563	8,875	10,192	12,046	14,563	16,711	15,749	17,576
autos	113,204	115,613	113,290	115,613	115,794	120,008	114,980	122,786	121,700	124,250	124,988	115,084	114,183	114,183	113,020	113,020	113,020	113,020	101,860	108,008
% bikes of all vehicles	2%	3%	3%	3%	3%	4%	4%	4%	5%	5%	6%	7%	7%	7%	8%	10%	11%	13%	13%	14%
auto change since 1991		2%	0%	2%	2%	6%	2%	8%	8%	10%	10%	2%	1%	1%	0%	0%	0%	0%	-10%	-5%
bike increase since 1991		25%	36%	34%	14%	59%	83%	99%	107%	111%	167%	189%	200%	211%	257%	322%	410%	485%	452%	516%
Annual % change		25%	9%	-1%	-15%	39%	15%	9%	4%	2%	27%	8%	4%	4%	15%	18%	21%	15%	-6%	12%
--interpolated or averaged (created) value																				
bike increase since 2000											27%	37%	42%	47%	69%	100%	142%	178%	162%	192%
bike increase since 1996							15%	26%	30%	33%	68%	82%	89%	96%	125%	166%	221%	269%	248%	288%
bike increase since 1991		25%	36%	34%	14%	59%	83%	99%	107%	111%	167%	189%	200%	211%	257%	322%	410%	485%	452%	516%