## 2011 Bicycle Counts Report

## Portland Bureau of Transportation February 2012




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## 2011 Bicycle Counts Report Portland Bureau of Transportation



## Introduction

The Portland Bureau of Transportation (PBOT) has counted bicycles for decades to collect data about the number of people bicycling in Portland and where they ride. Data is also collected about gender and helmet use. This report identifies the key findings from bicycle counts conducted between July 20 and September 30, 2011.

Increasing the number of Portlanders who bike benefits the city by reducing traffic congestion, improving air quality, lowering individual transportation costs and improving individual health. The annual bicycle counts are a principal means for PBOT to assess its progress toward making the bicycle an integral part of daily life in Portland.

## Findings of the 2011 Bicycle Counts:

- 4 percent more bicycles were counted on the Broadway, Steel, Burnside and Hawthorne bridges than in 2010.
- 7 percent more bicycles were counted at 123 non-bridge locations than in 2010.
- 6.4 percent more bicycles were counted citywide (both bridge and non-bridge locations) than in 2010.
- 80 percent of people on bikes were counted wearing helmets citywide, 3 percent more than in 2010.
- 85 percent of females and 77 percent of males were counted wearing helmets citywide.
- 69 percent of people on bikes were counted as male and 31 percent were counted as female, the same as in 2010.
- 61 percent more bicycles were counted at 11 locations on newly-developed Neighborhood Greenways than in 2010.

Note: Data is only compared year-to-year at same locations.

## Methodology

The majority of bicycle counts are conducted by volunteers and City of Portland staff, who visually count and then record passing bicycles at street corners and on bridges during two-hour time slots called a "peak period." In the last ten years, PBOT added several automatic bicycle counters on bridges and trails. These counters provide a more complete picture of the ebb and flow of bicycle traffic over the course of the day and throughout the year.

For visual counts, volunteers record counts for each direction during peak periods at a location and report the number to PBOT staff. A 24 -hour average bicycle count for the location is calculated by multiplying the recorded peak period count by five. This is a standard traffic engineering calculation that has been validated by comparing extrapolated visual counts with comparable results from automated counters.

Prior to 2008 the majority of counts were concentrated in the center of the city. Since then, PBOT has worked to increase the total number of count locations and expand the locations across the city, with extra focus on adding locations in Southwest and East Portland. In 2008, there were 121 locations and in 2011 there were 156.

To determine year-on-year percentage change in counts, PBOT staff compare only those locations and their count totals that were recorded for both years. New locations and the total counts recorded at them are not compared to previous years' totals.

## General Findings

The 2011 Bicycle Counts show a continuation of a two-decade increase in the number of bicycles counted in Portland. Of 127 locations that were counted in both 2010 and 2011 (including the bicyclefriendly Willamette River bridges and trails), 83 locations showed an increase and 44 locations showed a decrease compared to 2010. Overall, the number of bicycles counted in 2011 increased approximately 6.4 percent compared to 2010 . Helmet use increased approximately 3 percent compared to 2010; this matches the highest rate observed ( 80 percent) since PBOT began recording helmet use. The split of male to female cyclists was approximately the same in 2011 as 2010, with 69 percent of people on bikes counted as male and 31 percent counted as female.

Sixty-one percent more bicycles were counted at 11 locations on newly-developed Neighborhood Greenways in 2011 than in 2010. Nine locations saw an increase in the counts and two locations saw a decrease.

More locations were counted in 2011 than any prior year. With more coverage in all districts of Portland, the base of data will provide even greater detail for future comparisons.

## Bridge Counts

The number of bicycles counted on the four principal, bicycle-friendly bridges over the Willamette River - the Hawthorne, Burnside, Steel and Broadway bridges - has been a tool PBOT uses to analyze overall bicycle ridership for years. Since counts began, the number of bicyclists crossing these four bridges has grown steadily. The reported numbers reflect an average of weekday bicycle trips on the bridges, which for the Hawthorne, Burnside, Steel and Broadway bridges were 8,044, 2,175, 3,703, and 4,335 , respectively.

Counters on the Broadway Bridge were inoperative during the summer. The 4,335 number is derived from data collected on the bridge in October, which was then seasonally adjusted based on summer and fall counts on the Hawthorne Bridge. The Burnside Bridge count was a one-day count. Peak recorded use on the Hawthorne, Steel and Broadway Bridges was 8,908, 4,761 and 4,652, respectively.

In 2011 Portlanders took an average of approximately 18,257 daily weekday bicycle trips across the Willamette River on these four bridges (compared to approximately 17,580 in 2010 and 15,750 in 2009).

Bridge Counts: 2011 Compared to 2010

| BRIDGE | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 0}$ | \% CHANGE |
| :--- | :---: | :---: | :---: |
| Bridge Total | 18,257 | 17,576 | $3.8 \%$ |
| Hawthome | 8,044 | 7,133 | $12.8 \%$ |
| Steel | 3,703 | 3,287 | $12.7 \%$ |
| Broadway | 4,335 | 5,291 | $-18 \%$ |
| Bumside | 2,175 | 1,865 | $16.6 \%$ |

## Non-Bridge Counts

The number of bicycles counted at non-bridge locations citywide also increased. At 123 non-bridge locations that were also counted in 2010, the number of bicycles counted in 2011 was 7 percent higher than in 2010. At 29 non-bridge locations that have been counted for more than 10 years, the number of bicycles counted has increased 225 percent.

Since 2001, the number of bicycles counted by PBOT increased in each of Portland's geographic districts. The largest increase was in North Portland, which saw a 280 percent increase overall at 5 locations. The Central City saw a 253 percent increase at 5 locations, Southeast saw a 233 percent increase and Southwest saw a 209\% increase.

Non-Bridge Counts: 2011 Compared to 2010 and 2001

| DISTRICT/ <br> LOCATION | \% CHANGE <br> SINCE 2000/01 | \#OF <br> LOCATIONS | \% CHANGE <br> SINCE 2010 | \# OF <br> LOCATIONS |
| :--- | :---: | :---: | :---: | :---: |
| Citywide <br> Total | $\mathbf{2 2 5 \%}$ | 29 | $\mathbf{7 \%}$ | 123 |
| Central City <br> (west side) | $253 \%$ | 5 | $3 \%$ | 16 |
| North | $280 \%$ | 5 | $11 \%$ | 14 |
| Northeast | $130 \%$ | 5 | $16 \%$ | 18 |
| Southeast | $233 \%$ | 7 | $2.5 \%$ | 24 |
| East | Na | Na | $18 \%$ | 16 |
| Northwest* | $187 \%$ | 3 | $7 \%$ | 7 |
| Southwes** | $209 \%$ | 4 | $3 \%$ | 28 |

*exc ludes Central City

In 2011, all districts experienced growth in the number of bikes counted compared to 2010. East and Northeast Portland increased the most, with 18 and 16 percent more bikes counted respectively. Southeast and Southwest Portland increased the least, with 2.5 and 3 percent more bikes counted respectively.

Two locations stood out for significant decreases in the bicycles counted. At SE Ankeny and SE 6th, 22 percent fewer bicycles were counted in 2011 and counts in Tom McCall Waterfront Park were also down compared to the previous year.

Several locations stood out for above average increases in the numbers of bicycles counted. At N Williams and N Russell, counts increased 30 percent; at NE Going and NE 9th, counts increased 52 percent; and at NE Going and NE 37th, counts increased 104 percent. As previously noted, bicycle counts at 11 locations on new Neighborhood Greenways increased 61 percent on average.

## Helmet Counts

Helmet use in Portland has been trending upward since the early 1990s. In 1992, 44 percent of people on bikes were counted wearing a helmet and in 2011 approximately 80 percent were. 2011 matches the highest percentage recorded along with 2008.

Southwest had the highest percentage of riders wearing a helmet for a district, where approximately 90 percent of riders were counted wearing one. East Portland had the lowest percentage of riders wearing a helmet for a district, where 58 percent of riders were counted wearing one.

The percentage of people counted wearing helmets citywide increased 3 percentage points in 2011, from 77 to 80 percent. The percentage of helmet use increased in all districts, with Northwest increasing the most at 5.8 percentage points and East Portland increasing the least at 0.5 percentage points.

Since 1992, women having been counted wearing helmets at a higher rate than men. In 2011 approximately 85 percent of females and 77 percent of males were counted wearing a helmet respectively. Compared to 2010, helmet use among women increased 2 percentage points, while helmet use by men increased 3 percentage points.

Percentage with Helmets: 2011 Compared to 2010

| DISIRICT LOCATION | \% 2010 | \% 2011 | CHANGE IN <br> \% POINIS |
| :--- | :---: | :---: | :---: |
| Citywide Total | $77 \%$ | $80 \%$ | 3.0 |
| Central City (west side) | $75.2 \%$ | $79.9 \%$ | 4.7 |
| North | $81.4 \%$ | $84.2 \%$ | 2.8 |
| Northeast | $77.3 \%$ | $78.6 \%$ | 1.3 |
| Southeast | $74.4 \%$ | $76.8 \%$ | 2.4 |
| East | $57.6 \%$ | $58.1 \%$ | 0.5 |
| Northwest* | $71.2 \%$ | $76.9 \%$ | 5.8 |
| Southwest* | $88.2 \%$ | $90.0 \%$ | 1.8 |

*excludes Central City

## Gender Counts

Women have been counted on bicycles at significantly lower numbers than men in Portland. In 2011, women on bikes represented 31.4 percent of those counted. The gender split for women cycling increased 0.2 percentage points citywide compared to 2010.

The percentage of women counted on bicycles varied among Portland's districts. The highest percentage of women was counted in Northeast Portland ( 35 percent) and the lowest percentage in East Portland (19 percent). North Portland had the largest one-year increase of females, where the percentage counted increased by 2.6 percentage points. The percentage of riders counted as females decreased by 1.1 percentage points in both Southeast and Southwest Portland.

The range of female rider percentage ranged from a low of 7 percent at SW Barbur Blvd and SW Capitol to a high of 58 percent at N Failing and N Missouri.

Percentage Female: 2011 Compared to 2010

| DISIRICT LOCATION | \% 2010 | \% 2011 | CHANGE IN <br> \% POINIS |
| :--- | :---: | :---: | :---: |
| Citywide Total | $31.2 \%$ | $31.4 \%$ | 0.2 |
| Central City (west side) | $30.9 \%$ | $31.6 \%$ | 0.7 |
| North | $32.0 \%$ | $34.6 \%$ | 2.6 |
| Northeast | $33.9 \%$ | $35.4 \%$ | 1.5 |
| Southeast | $33.4 \%$ | $32.2 \%$ | -1.2 |
| East | $19.5 \%$ | $19.3 \%$ | -0.2 |
| Northwest* | $32.8 \%$ | $32.0 \%$ | -0.8 |
| Southwest* | $24.7 \%$ | $23.6 \%$ | -1.1 |

*excludes Central City

## Seasonal Change in Counts

PBOT's Bicycle Counts Report documents counts taken during Portland's summer, the driest and warmest season of the year. In 2011, counts were taken between July 20 and September 30.

In recent years, PBOT has more consistently collected bicycle counts throughout the year on selected bridges. In 2010 and 2011, the bureau recorded bicycle counts on the Hawthorne Bridge from fall through spring. Results of these counts are shown in the figure titled: "Summer and Winter Comparison of Bicycle Trips" in this report's appendix. As illustrated, winter counts were approximately half the 2011 summer counts. Counts from October, November and December 2011 are higher than counts from the same months in 2010. Counts from October 2011 exceed the summer counts from 2007 and November 2011 counts approach those from the summer of 2006.

## Crash Findings

The Portland Bureau of Transportation traditionally reports a bicycle crash index number in the Bicycle Counts Report. This number is calculated by dividing an annual reported crash figure by the total daily bicycle count for the Broadway, Steel, Burnside and Hawthorne bridges combined. The annual reported bicycle crash data is compiled by the Oregon Department of Transportation from self-reported crashes and police crash investigations and serves as the official crash record for the State of Oregon. The crash data from the most recent year is not typically released in time for PBOT's Bicycle Counts Report, so the crash index lags one year behind the counts. For example, this report discusses the 2011 counts and the 2010 crash data.

The twenty-year trend for bike crashes compared to Portland bridge counts is downward. However, data show that since 2008 the number of reported bicycle crashes in Portland has increased and the
crash index number has risen accordingly. While total crashes have increased, the number involving a serious injury has decreased. Also, the number of bicycle fatalities in Portland has remained relatively stable in recent years.

The Portland Police Bureau changed its policy regarding mandatory crash investigations for bicyclerelated crashed in January 2008. Before, a bicycle rider would have to sustain a trauma-level injury to warrant a crash investigation by Portland Police. Since 2008, a bicycle rider has to be transported by ambulance to a hospital to warrant a crash investigation. This change resulted in an increase in the number of bicycle-related crash investigations. From 2003 through 2007, an average of 70 crashes were investigated a year. From 2008 through 2010, an average of 271 crashes were investigated a year. The number of Police crash investigation influences the ODOT crash data used here.

Because of this new reporting threshold for investigating crashes, current bicycle crash data no longer offer an "apples to apples" comparison to data reported before 2008.

Locations with Highest, Lowest Percentage Female: 2011 Compared to 2010

| $\begin{aligned} & \text { RANK } \\ & \text { (2011) } \end{aligned}$ | LOCATION | $\begin{gathered} \hline \text { \% TRIPS } \\ \text { BY } \\ \text { WOMEN } \\ \text { (2011) } \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { \% TRIPS } \\ \text { BY } \\ \text { WOMEN } \\ \text { (2010) } \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \text { TOTAL } \\ & \text { DAILY } \\ & \text { TRIPS } \\ & \text { (2011) } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 | $N$ Failing \& Missouri | 58\% | 38\% | 295 |
| 2 | N Skidmore \& Michigan (new) | 45\% | - | 830 |
| 3 | N Bryant \& Missouri (new) | 44\% | - | 250 |
| 4 | NE Tilla mook \& 74th | 44\% | 29\% | 455 |
| 5 | NE Irving \& 20th | 44\% | 40\% | 1,335 |
| 6 | SE Belmont \& 16th | 43\% | 35\% | 810 |
| 7 | SW Moody \& River Pkwy | 42\% | 41\% | 1,860 |
| 8 | SW Moody \& Gibbs | 41\% | 36\% | 1,755 |
| 9 | SE Taylor \& 41/42 ${ }^{\text {nd }}$ | 41\% | 40\% | 1,205 |
| 10 | N Vancouver \& Ainsworth | 41\% | 45\% | 1,060 |
| $119$ | NE Prescott \& Cully (new) | 17\% | - | 290 |
| 120 | SW Multnomah \& 45 ${ }^{\text {th }}$ | 17\% | 23\% | 350 |
| 121 | NE Maywood PI \& I-205 Path | 16\% | 20\% | 280 |
| 122 | SW Canyon Ct \& Skyline | 16\% | 12\% | 660 |
| 123 | SW Multnomah \& 25th (new) | 16\% | - | 415 |
| 124 | SW Kingston \& Rose Garden (new) | 15\% | - | 360 |
| 125 | NE Halsey \& 122 ${ }^{\text {nd }}$ | 15\% | 20\% | 335 |
| 126 | N Union Path l-5 Ramp | 11\% | 14\% | 610 |
| 127 | SW Capitol Hwy \& Vermont | 11\% | 29\% | 330 |
| 128 | SW Barbur Blvd \& Capitol Hwy | 7\% | 9\% | 290 |

Bicycle Counts: Inner Southeast Portland pre-2000 to 2011


Bicycle Counts: Inner Northeast Portland pre-2000 to 2011

| Location | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 20022001 | 2000 | e-2000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NE Multnomah \& Wheeler | 2,785 | 2,815 | 1,730 | 1,190 |  |  |  |  |  |  |  |  |
| NE Irving \& 12th | 1,670 | 1,710 | 1,635 | 1,655 | 1,360 | 850 |  |  |  | 540 | 475 | 505 |
| NE Going \& 9th | 1,585 | 1,040 | 490 | 515 |  |  |  |  |  |  |  |  |
| NE Tillamook \& 28th | 1,440 | 1,425 | 1,490 |  |  |  |  |  |  |  |  |  |
| NE Irving \& 20th | 1,335 | 1,100 | 1,040 |  | 1,010 | 890 |  |  |  |  | 275 | 375 |
| NE Glisan \& 28th | 1,310 | 1,385 |  |  |  |  |  |  |  |  |  |  |
| NE Broadway \& 7th | 1,270 | 1,200 | 1,560 | 1,765 | 1,525 | 1,205 |  |  |  |  |  | 365 |
| NE Everett \& 53rd | 1,220 | 1,005 |  | 845 | 765 | 595 | 400 |  |  |  |  |  |
| NE Grant PI \& 33rd | 1,115 | 1,095 | 750 | 1,165 | 680 | 710 |  |  |  |  |  |  |
| NE Couch \& 41st | 1,020 | 525 |  |  | 570 |  |  |  |  |  |  |  |
| NE Multnomah \& 7th | 1,005 |  | 1,180 | 1,275 |  | 860 |  |  |  | 415 | 465 | 380 |
| NE Davis \& 41st |  | 950 | 915 | 875 | 615 |  |  |  |  |  |  |  |
| NE Weidler \& 7th |  | 850 |  |  | 1,330 | 1,205 |  | 655 |  | 700 | 725 | 745 |
| NE Holladay \& 7th | 835 |  |  |  |  |  |  |  |  |  |  |  |
| NE Skidmore \& 9th |  | 535 | 460 | 695 | 455 |  |  |  |  |  |  |  |
| NE Morris \& 7th | 755 |  |  |  |  |  |  |  |  |  |  |  |
| E Burnside \& 74th | 745 | 530 | 455 | 500 | 405 | 440 | 365 |  |  |  |  |  |
| NE Going \& 37th | 735 | 360 | 230 | 270 |  |  |  |  |  |  |  |  |
| NE Weidler \& MLK | 540 | 500 | 850 | 1,025 | 655 | 505 |  |  |  | 740 |  | 655 |
| NE Multnomah \& 47th | 535 | 290 | 545 | 505 | 400 | 285 |  |  | 215 | 170 | 190 | 195 |
| NE Klickitat \& 27th | 470 |  |  |  |  |  |  |  |  |  |  |  |
| NE Irving \& 21st | 465 | 455 | 460 |  | 435 |  |  |  |  |  |  |  |
| NE Tillamook \& 74th | 455 | 350 | 240 | 320 |  |  |  |  |  |  |  |  |
| NE Holman \& 27th |  | 280 |  |  |  |  |  |  |  |  |  |  |
| NE Prescott \& Cully | 290 |  | 180 | 360 |  |  |  |  |  |  |  |  |
| NE Siskiyou \& 72nd |  | 165 | 185 | 160 |  |  |  |  |  |  |  |  |
| NE Alberta \& Cully | 250 |  |  |  |  |  |  |  |  |  |  |  |
| NE Killingsworth \& Cully | 195 | 140 |  |  |  |  |  |  |  |  |  |  |
| NE Alberta \& 72nd | 155 | 70 |  |  |  |  |  |  |  |  |  |  |

Bicycle Counts: North Portland pre-2000 to 2011

| Location | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 2003 | 2002 | 2001 | 2000 | pre-2000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| N Vancouver \& Russell | 4,105 |  | 3,225 | 3,600 | 2,325 | 1,900 |  |  | 1,075 |  | 950 | 850 | 530 |
| N Interstate/Lloyd/Oregon | 3,995 | 4,510 |  | 3,525 |  |  |  |  |  |  |  |  |  |
| N Williams \& Russell |  | 3,095 | 2,675 | 2,745 | 2,105 | 885 |  | 880 |  |  | 560 | 610 | 295 |
| N Multnomah \& Wheeler | 1,605 | 2,815 | 1,730 | 1,190 |  |  |  |  |  |  |  |  |  |
| N Interstate \& Larrabee | 1,240 | 1,105 | 1,230 | 1,705 | 1,295 | 1,245 |  |  |  |  |  |  |  |
| N Interstate \& Greeley | 1,060 | 1,275 | 1,185 | 1,340 | 960 | 1,010 |  |  | 390 |  |  |  | 255 |
| N Vancouver \& Ainsworth | 890 | 990 |  | 1,200 | 615 | 580 |  | 410 |  |  | 265 | 220 | 168 |
| N Flint \& Tillamook | 875 |  | 685 | 820 | 590 | 535 |  |  |  |  | 915 | 835 | 400 |
| N Willamette \& Waud Bluff Trail | 830 |  | 765 | 610 |  |  |  |  |  |  |  |  |  |
| N Skidmore \& Michigan | 625 |  |  |  |  |  |  |  |  |  |  |  |  |
| N Concord \& Willamette | 615 | 440 |  |  |  |  |  |  |  |  |  |  |  |
| N Denver \& Rosa Parks | 610 |  | 800 | 740 | 515 | 450 |  |  |  |  | 135 |  |  |
| N Union Path \& l-5 | 585 | 545 | 465 | 510 |  |  |  |  |  |  |  |  |  |
| N Going \& Greeley | 475 | 595 |  | 520 | 460 |  |  |  |  |  |  |  |  |
| N Michigan \& Rosa Parks |  |  |  |  |  |  |  |  |  |  |  |  |  |
| N Portsmouth \& Willis | 295 |  | 215 | 260 | 215 |  |  |  |  |  |  |  |  |
| N Failing \& Missouri | 260 | 210 | 175 | 200 |  |  |  |  |  |  |  |  |  |
| N Willamette \& Philadelphia | 250 | 280 |  |  | 150 |  |  |  |  |  |  |  |  |
| N Bryant \& Missouri |  |  |  | 190 |  |  |  |  |  |  |  |  |  |
| N Bryant \& Concord | 235 | 200 |  |  |  |  |  |  |  |  |  |  |  |
| N Bryant \& Wabash | 150 | 125 | 195 |  |  |  |  |  |  |  |  |  |  |
| N Central \& N Burr | 85 | 110 |  |  |  |  |  |  |  |  |  |  |  |
| N Wabash \& N Halleck |  | 125 |  |  |  |  |  |  |  |  |  |  |  |
| N Smith \& St. Louis |  | 125 |  | 155 | 100 |  |  |  |  |  |  |  |  |
| N Chautauqua \& Willis |  | 125 |  |  |  |  |  |  |  |  |  |  |  |
| N Willis \& Woolsey | 45 |  |  | 155 |  |  |  |  |  |  |  |  |  |
| N Port Center Wy \& Cement Rd |  | 20 | 35 | 30 | 45 |  |  |  |  |  |  |  |  |
| N Fessenden \& Peninsula X-ing |  |  | 365 | 280 | 275 |  |  |  |  |  |  |  |  |

Bicycle Counts: East Portland pre-2000 to 2011


Bicycle Counts: Southwest Portland* pre-2000 to 2011


2011 Portland Bicycle Counts
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Bicycle Counts: Northwest Portland* pre-2000 to 2011

| Location | 2011 | 2010 | 2009 | 2008 | 2007 | 2006 | 2005 | 2004 | 20032002 | 2001 | 2000 | pre-2000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NW Lovejoy \& 9th | 2,160 | 1,530 | 2,095 | 2,325 |  |  |  |  |  |  |  |  |
| NW Naito \& 9th | 1,475 | 1,715 | 980 | 1,185 | 770 |  |  |  |  |  |  |  |
| NW Johnson \& 14th | 1,035 | 1,030 | 1,055 |  |  |  |  |  |  |  |  |  |
| NW Overton \& 18th |  | 775 | 695 | 555 | 375 |  |  |  |  |  |  |  |
| NW Johnson \& 19th | 1,000 |  | 415 | 525 | 635 |  |  |  | 200 | 255 |  |  |
| NW Johnson \& 18th | 880 | 720 | 785 |  | 660 | 650 |  |  | 445 |  | 410 |  |
| NW Thurman \& 24th | 515 | 635 | 680 | 660 |  |  |  |  |  |  |  |  |
| NW Glisan \& 16th |  | 500 | 330 | 440 | 335 | 215 |  | 375 |  |  | 230 | 360 |
| NW Thurman \& 14th | 365 | 415 | 485 | 565 | 415 |  |  |  |  |  |  |  |
| NW Wardway \& Nicolai |  |  | 290 | 305 |  |  |  |  |  |  |  |  |
| NW Bridge Ave \& St. Johns Br. | 185 |  | 235 |  | 110 |  |  |  |  |  |  |  |
| NW Thompson \& Skyline |  |  |  | 215 |  |  |  |  |  |  |  |  |
| NW Couch \& 15th | 230 | 195 | 215 | 200 | 185 | 120 |  |  |  |  | 70 | 95 |

*Northwest Portland excludes bicycle counts in the Central City.

Bicycle Counts: Central City Portland pre-2000 to 2011


# Average Daily Bicycle Traffic <br> 4 Main Willamette River Bicycle Bridges 

6,711
Daily Bicycle Trips


## Year

Bicycle Traffic across Four Main Portland Bicycle Bridges J uxtaposed with Bikeway Miles
Cyclists per Day
Bikeway Miles


## Bicycle Bridge Traffic and Bicycle Crash Reports 1991-2011



199119921993199419951996199719981999200020012002200320042005200620072008200920102011 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 10,19212,04614,56316,71115,79417,57618,257 $\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrr} \\ \text { Reported Bicycle Crashes* } & 155 & 163 & 171 & 189 & 195 & 160 & 167 & 166 & 161 & 179 & 175 & 173 & 164 & 174 & 188 & 203 & 186 & 265 & 287 & 321 & * \\ \text { Bicycle Fatalities } & 2 & 0 & 4 & 3 & 2 & 1 & 5 & 3 & 0 & 0 & 5 & 0 & 4 & 1 & 4 & 0 & 6 & 0 & 4 & 0 & 2\end{array}$

Extrapolated from peak period counts
Year
"Bicycle Crash Index" represents an indexing of annual reported crashes to daily bicycle trips across the four main bicycle bridges. The rate is calculated by dividing the number of crashes by the bicycle bridge traffic and multiplied by 10,000 to provide an index on the same scale as the reported bicycle crash data.
*2008-2010 Reported Bicycle Crashes data reflects a decision by the Portland Police Bureau to lower the threshold for reporting bicycle-involved crashes. This change, beginning in J anuary 2008 means that crashes previously unreported by Portland Police are now entering the reporting system. There have been no indications in the operation of our system that leads the city to condude that the increase in reported crashes is representative of changes in actual crash activity with in the city.

## Bicycle Traffic at City Count Locations Bridge and Non-Bridge Traffic




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 NE Portland 2011 Counts Compared to Previous Years

Daily Bicycle Trips
4,000
3,750
3,500
3,250
3,000
2,750
2,500
2,250
2,000
1,750
1,500
1,250
1,000
750
500
250
0

Location

| prior to 2000 | - 2000 - 2001 |
| :---: | :---: |
| - 2003 | - 2004 - 2005 |
| $\square 2006$ | $\square 2007$ - 2008 |
| $\square 2009$ | $\square 2010$ - 2011 |

## Daily Bicycle Traffic West Portland (Central City) 2011 Counts Compared to Previous Years



## Daily Bicycle Traffic Southwest Portland (not incl. Central City) 2011 Counts Compared to Previous Years



## Daily Bicycle Traffic Northwest Portland (not incl. Central City) 2011 Counts Compared to Previous Years




## City of Portland Bicycle Counts by Year By Gender <br> Percentage of all Cyclists



## City of Portland Bicycle Counts by Sector 2011 By Gender

Percentage of all Cyclists

based on manual peak hour counts
Number in columns is total number of cyclists recorded in counts in each sector.

## City of Portland Bicycle Counts by Year By Helmet Use <br> Percentage of all Cyclists

100\%
95\%
90\%
85\%
80\%
75\%
70\%
65\%
60\%
55\%
50\%
45\%
40\%
35\%
30\%
25\%
20\%
15\%
10\%
5\%
0\%


19921993199419951996199719981999200020012002200320042005200620072008200920102011

## City of Portland Bicycle Counts by Sector 2011 By Helmet Use

Percentage of all Cyclists


## City of Portland Bicycle Counts by Sector 2011 By Gender and Helmet Use

Percentage of all Cyclists


## Summer and Winter Comparison of Bicycle Trips

 2011 Hawthorne Bridge Counts Compared to Past Peaks Daily Trips


## Legend

\# Top 10 by \% Females*
$\star$ Bottom 10 by \% Females* * for locations with 50 or more cyclists

## Percent Female Cyclists

- greater than $40 \%$
- 31-40\%
- 26-30\%
- $20-25 \%$
- less than $20 \%$

Cycle Zone Index


## 2011 Bicycle Count Locations by Percentage of Women



City of Portland Bicycle Counts by Year Gender and Helmet Use

| Citywide |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male Cyclistsw/ helmets $\begin{gathered}\text { w/o helmets }\end{gathered}$ |  | Total | Female Cyclists |  |  | Percentages |  |  |  |  |  |  |  | $\begin{gathered} \text { Male Cyclists as \% of all } \\ \text { cyclists } \end{gathered}$ |  | Female Cyclists as \% of all cyclists |  | Based on |  |
| Year |  |  | Male Cyclists |  |  |  | Female Cyclists |  |  | All Cyclists |  |  |  |  |  |  |  |
| 1992 | 153 | 205 |  | 358 | 46 | 47 | 93 | 42.7\% | 57.3\% | 79\% | 49\% | 51\% | 21\% | 44\% | 56\% | 33.9\% | 45.5\% | 10.2\% | 10.4\% | 451 | cyclists |
| 1993 | 229 | 211 | 440 | 101 | 55 | 156 | 52.0\% | 48.0\% | 74\% | 65\% | 35\% | 26\% | 55\% | 45\% | 38.4\% | 35.4\% | 16.9\% | 9.2\% | 596 | cyclists |
| 1994 | 75 | 54 | 129 | 28 | 15 | 43 | 58.1\% | 41.9\% | 75\% | 65\% | 35\% | 25\% | 60\% | 40\% | 43.6\% | 31.4\% | 16.3\% | 8.7\% | 172 | cyclists |
| 1995 | 842 | 401 | 1,243 | 320 | 162 | 482 | 67.7\% | 32.3\% | 72\% | 66\% | 34\% | 28\% | 67\% | 33\% | 48.8\% | 23.2\% | 18.6\% | 9.4\% | 1,725 | cyclists |
| 1996 | 904 | 548 | 1,452 | 335 | 135 | 470 | 62.3\% | 37.7\% | 76\% | 71\% | 29\% | 24\% | 64\% | 36\% | 47.0\% | 28.5\% | 17.4\% | 7.0\% | 1,922 | cyclists |
| 1997 | 2,126 | 1,428 | 3,554 | 900 | 337 | 1,237 | 59.8\% | 40.2\% | 74\% | 73\% | 27\% | 26\% | 63\% | 37\% | 44.4\% | 29.8\% | 18.8\% | 7.0\% | 4,791 | cyclists |
| 1998 | 2,229 | 1,518 | 3,747 | 901 | 395 | 1,296 | 59.5\% | 40.5\% | 74\% | 70\% | 30\% | 26\% | 62\% | 38\% | 44.2\% | 30.1\% | 17.9\% | 7.8\% | 5,043 | cyclists |
| 1999 | 1,978 | 1,109 | 3,087 | 764 | 264 | 1,028 | 64.1\% | 35.9\% | 75\% | 74\% | 26\% | 25\% | 67\% | 33\% | 48.1\% | 27.0\% | 18.6\% | 6.4\% | 4,115 | cyclists |
| 2000 | 2,364 | 1,111 | 3,475 | 899 | 301 | 1,200 | 68.0\% | 32.0\% | 74\% | 75\% | 25\% | 26\% | 70\% | 30\% | 50.6\% | 23.8\% | 19.2\% | 6.4\% | 4,675 | cyclists |
| 2001 | 3,734 | 1,618 | 5,352 | 1,632 | 457 | 2,089 | 69.8\% | 30.2\% | 72\% | 78\% | 22\% | 28\% | 72\% | 28\% | 50.2\% | 21.7\% | 21.9\% | 6.1\% | 7,441 | cyclists |
| 2002 | 363 | 126 | 489 | 138 | 40 | 178 | 74.2\% | 25.8\% | 73\% | 78\% | 22\% | 27\% | 75\% | 25\% | 54.4\% | 18.9\% | 20.7\% | 6.0\% | 667 | cyclists |
| 2003 | 1,854 | 891 | 2,745 | 910 | 322 | 1,232 | 67.5\% | 32.5\% | 69\% | 74\% | 26\% | 31\% | 69\% | 31\% | 46.6\% | 22.4\% | 22.9\% | 8.1\% | 3,977 | cyclists |
| 2004 | 1,401 | 637 | 2,038 | 674 | 216 | 890 | 68.7\% | 31.3\% | 70\% | 76\% | 24\% | 30\% | 71\% | 29\% | 47.8\% | 21.8\% | 23.0\% | 7.4\% | 2,928 | cyclists |
| 2005 | 1,064 | 393 | 1,457 | 528 | 136 | 664 | 73.0\% | 27.0\% | 69\% | 80\% | 20\% | 31\% | 75\% | 25\% | 50.2\% | 18.5\% | 24.9\% | 6.4\% | 2,121 | cyclists |
| 2006 | 4,316 | 1,703 | 6,019 | 2,048 | 502 | 2,550 | 71.7\% | 28.3\% | 70\% | 80\% | 20\% | 30\% | 74\% | 26\% | 50.4\% | 19.9\% | 23.9\% | 5.9\% | 8,569 | cyclists |
| 2007 | 6,649 | 2,366 | 9,015 | 3,369 | 724 | 4,093 | 73.8\% | 26.2\% | 69\% | 82\% | 18\% | 31\% | 76\% | 24\% | 50.7\% | 18.1\% | 25.7\% | 5.5\% | 13,108 | cyclists |
| 2008 | 12,944 | 3,784 | 16,728 | 6,754 | 1,108 | 7,862 | 77.4\% | 22.6\% | 68\% | 86\% | 14\% | 32\% | 80\% | 20\% | 52.6\% | 15.4\% | 27.5\% | 4.5\% | 24,590 | cyclists |
| 2009 | 11,340 | 3,887 | 15,227 | 5,619 | 1,219 | 6,838 | 74.5\% | 25.5\% | 69\% | 82\% | 18\% | 31\% | 77\% | 23\% | 51.4\% | 17.6\% | 25.5\% | 5.5\% | 22,065 | cyclists |
| 2010 | 12,436 | 4,422 | 16,858 | 6,332 | 1,324 | 7,656 | 73.8\% | 26.2\% | 69\% | 83\% | 17\% | 31\% | 77\% | 23\% | 50.7\% | 18.0\% | 25.8\% | 5.4\% | 24,514 | cyclists |
| 2011 | 15,193 | 4,478 | 19,671 | 7,628 | 1,372 | 9,000 | 77.2\% | 22.8\% | 69\% | 85\% | 15\% | 31\% | 80\% | 20\% | 53.0\% | 15.6\% | 26.6\% | 4.8\% | 28,671 | cyclists |

City of Portland Bicycle Counts by Year Gender and Helmet Use

| North |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male Cyclists |  |  | Female Cyclists |  |  | Percentages |  |  |  |  |  |  |  | Male Cyclists as \% of all cyclists |  | Female Cyclists as \% of all cyclists |  | Based on |  |
| Year |  |  |  | Male Cyclists | Female Cyclists |  |  | All Cyclists |  |  |  |  |  |  |  |
| 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 |
| 2011 | 2,924 | 660 | 3,584 | 1,690 | 206 | 1,896 | 82\% | 18\% | 65\% | 89\% | 11\% | 35\% | 84\% | 16\% | 53\% | 12\% | 31\% | 4\% | 5,480 | cyclists |


| Northwest |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male Cyclists |  |  | Female Cyclists |  |  | Percentages |  |  |  |  |  |  |  | Male Cyclists as \% of all cyclists |  | Female Cyclists as \% of all cyclists |  | Based on |  |
| Year |  |  |  | Male Cyclists | Female Cyclists |  |  | All Cyclists |  |  |  |  |  |  |  |
| 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 |  |  |  |  |  |  |  |  |  |  |  |  |  | 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 | 40,176 | 68 | 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\% | 13\% | 16\% | 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\% | 667\% | 76\% | 24\% | 33\% | 71\% | 29\% | 46\% | 21\% | 25\% | 8\% | 1,949 | cyclists |
| 2011 | 892 | 308 | 1,200 | 415 | 102 | 517 | 74\% | 26\% | 70\% | 80\% | 20\% | 30\% | 76\% | 24\% | 52\% | 18\% | 24\% | 6\% | 1,717 | cyclists |

City of Portland Bicycle Counts by Year Gender and Helmet Use

| Northeast |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{r}\text { Male Cyclists } \\ \text { w/ helmets } \\ \text { w/o helmets }\end{array}$ |  | Total | Female Cyclist w/ helmets w/o helmets |  | Total | Percentages |  |  |  |  |  |  |  | Male Cyclists as \% of all cyclists |  | Female Cyclists as \% of all cyclists |  | Based on |  |
| Year |  |  | Male Cyclists |  |  | Female Cyclists | All Cyclists |  |  |  |  |  |  |  |
| 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\% | 4\% | 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 | 83 | 348 | 63\% | 37\% | 74\% | 75\% | 24\% | 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 |
| 2011 | 2,157 | 707 | 2,864 | 1,330 | 242 | 1,572 | 75\% | 25\% | 65\% | 85\% | 15\% | 35\% | 79\% | 21\% | 49\% | 16\% | 30\% | 5\% | 4,436 | cyclists |


| Southeast |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male Cyclists |  |  | Female Cyclists |  |  | Percentages |  |  |  |  |  |  |  | $\begin{aligned} & \text { Male Cyclists as \% of all } \\ & \text { cyclists } \\ & \text { w/helmets } \quad \text { w/o helmets } \end{aligned}$ |  | Female Cyclists as \% of all cyclists |  | Based on |  |
| Year |  |  |  | Male Cyclists | Female Cyclists |  |  | All Cyclists |  |  |  |  |  |  |  |
| 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\% | 77\% | 23\% | 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 |
| 2011 | 3,566 | 1,178 | 4,744 | 1,831 | 441 | 2,272 | 75\% | 25\% | 68\% | 81\% | 19\% | 32\% | 77\% | 23\% | 51\% | 17\% | 26\% | 6\% | 7,016 | cyclists |

City of Portland Bicycle Counts by Year Gender and Helmet Use

| East |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{array}{\|c\|} \hline \text { Male Cyclists as \% of all } \\ \text { cyclists } \\ \text { w/ helmets } \\ \text { w/o helmets } \end{array}$ |  | Female Cyclists as \% of all cyclists <br> w/ helmets w/o helmets |  | Based on |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | $\begin{array}{r}\text { Male Cyclists } \\ \text { w/ helmets } \\ \text { w/o helmets }\end{array}$ |  | Total | Female Cyclists w/ helmets w/o helmets |  | Total | Male Cyclists  <br> w/helmets w/o helmets  |  | ${ }_{\text {Total }}$ | Female Cyclists  <br> w/ helmets w/o helmets  |  | Total | All Cyclists <br> w/ helmets w/o helmets |  |  |  |  |  |
| 1992 | whers | 隹 | 0 | whernes | whes | 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 |
| 2011 | 648 | 517 | 1,165 | 191 | 88 | 279 | 56\% | 44\% | 81\% | 68\% | 32\% | 19\% | 58\% 42\% | 45\% | 36\% | 13\% | 6\% | 1,444 cyclists |


| Southwest |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male Cyclists |  |  | Female Cyclists |  |  | Percentages |  |  |  |  |  |  |  | Male Cyclists as \% of all cyclists <br> w/ helmets w/o helmets |  | Female Cyclists as \% of all cyclists |  | Based on |
|  |  |  |  | Male Cyclists | Female Cyclists |  |  | All Cyclists |  |  |  |  |  |  |
| 1992 | w/helmets | wor hermers | Total |  |  |  | w/heimets | wo helmets | 27 | W helmets | wo helmets | 74\% | W/hermets | 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 | 1,753 | 317 | 2,070 | 747 | 64 | 811 | 85\% | 15\% | 72\% | 92\% | 8\% | 28\% | 87\% | 13\% | 61\% | 11\% | 26\% | 2\% | 2,881 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 | 1,763 | 257 | 2,020 | 605 | 59 | 664 | 87\% | 13\% | 75\% | 91\% | 9\% | 25\% | 88\% | 12\% | 66\% | 10\% | 23\% | 2\% | 2,684 cyclists |
| 2011 | 2,223 | 257 | 2,480 | 701 | 67 | 768 | 90\% | 10\% | 76\% | 91\% | 9\% | 24\% | 90\% | 10\% | 68\% | 8\% | 22\% | 2\% | 3,248 cyclists |

