



**BICYCLE  
COALITION**  
OF GREATER  
PHILADELPHIA

**2014**

**BIKE PHL FACTS**

A blurred background image of a city street scene. In the foreground, a person is riding a bicycle, slightly out of focus. The background shows buildings and trees, suggesting an urban environment. The overall tone is slightly desaturated, with a focus on the text overlay.

**Our annual bike counts  
indicate Philadelphia  
continues its ascent as  
a leading American city  
for bicycling (2008-2013)**

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# TOP LEVEL FINDINGS

BICYCLING GREW

260%

between  
2005-2013



44%

of all bicyclists crossing the Schuylkill river are carried by the **South St. Bridge**

- Bicycle commuting in Philadelphia increased 260% between 2005 and 2013, as measured by rush hour bicycle volume across the major Schuylkill River bridges.
- People on bicycles will go out of their way to ride on streets with bike lanes.
- The South Street Bridge carries 44% of all bicycle traffic crossing the Schuylkill River.
- Streets with (better) bicycle lanes see more bicyclists, more women bicyclists, more helmet use, and fewer sidewalk and wrong-way riders.
- Philadelphia's percentage of women bicycle commuters (33%) is higher than the national average (24%).
- Philadelphia is one of only three cities to place two neighborhoods (South Philly and Center City) in the top 25 neighborhoods for bicycle commuting in the country.
- Philadelphia remains the top bicycle commuting city of the nation's 10 biggest cities. Philadelphia's lead has grown, but bike share will be necessary to maintain this lead.
- Southwest Philadelphia, Brewerytown/ Temple University area, and Fishtown/ Kensington neighborhoods have seen dramatic increases in bicycle commuting since 2009.

# INTRO DUCTION

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Spend any time in Philadelphia and it is easy to gain the impression that bicycling is a popular way Philadelphians travel. For more than a decade, the Bicycle Coalition of Greater Philadelphia (BCGP) has been conducting annual bike counts each autumn to obtain a statistical perspective on this anecdotal impression. The counts reveal Philadelphia's rising stature as one of America's leading cities for bicycling.

They also suggest that better infrastructure remains key to increasing bicycling rates, encouraging women to ride, and decreasing risky bicycling behavior.

Unless otherwise specified, this report covers trends in bicycling in Philadelphia between 2008-2013 as found in BCGP bike count data. The data used to compare Philadelphia to other cities is from the United States Census Bureau. Other data used for purposes of comparison was provided by the Delaware Valley Regional Planning Commission (DVRPC) and Center City District (CCD).

# BICYCLE COUNTS

## WHY WE COUNT

The US Census Bureau records “Journey to Work” as part of its yearly American Community Survey (ACS). This metric provides a count of what percentage of people report bicycling as their primary means of transportation to work (aka bicycle mode share). Because “Journey to Work” is reported uniformly throughout the country, it provides a good basis for comparing Philadelphia to other cities and for tracking cycling levels within smaller census units.

The ACS data is important, but not the complete picture. The ACS fails to capture people who bike commute fewer than three days a week, bike the first mile to a train station, or bike for reasons other than commuting. Therefore, the ACS data is considered an incomplete and conservative estimate of bicycling rates.

The BCGP counts employ a different methodology with which to compare to the ACS data. Volunteers and staff manually count bicyclists in 15-minute intervals for the two rush hour periods (7:30-9:00AM and 4:30-6:00PM). Counts are performed on autumn weekdays when it is not actively raining. Each location is counted four times (two morning counts and two afternoon counts) to produce an average per peak hour. Unless otherwise specified, the counts record all bicyclists approaching a given intersection. Additionally, BCGP counters record helmet use, sidewalk riding, wrong-way riding, and gender.

The BCGP counts also paint an incomplete picture of bicycling in Philadelphia. But using the same methodology at the same intersections over a number of years helps identify trends in bicycling. Observing behavior additionally provides insight into how infrastructure such as bike lanes influences who rides bicycles and how they ride.

The BCGP bicycle counts for the years 2008-2013 are summarized in Table 1. Comparing BCGP data for average counts across all locations to the US Census Bureau’s 1-year American Community Survey (ACS)

mode share data (see Figure 1) shows strong correlation. Relative volumes at specific intersections are confirmed by the Delaware Valley Regional Planning Commission (DVRPC) electronic counts (see Figure 2).

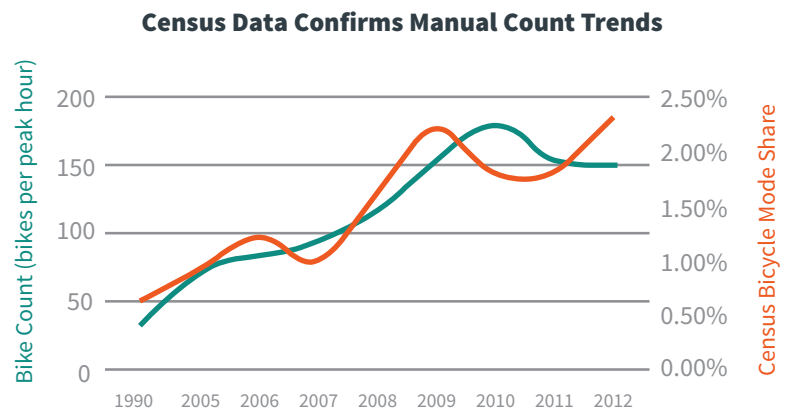


FIGURE 1 Source: BCGP Counts & ACS

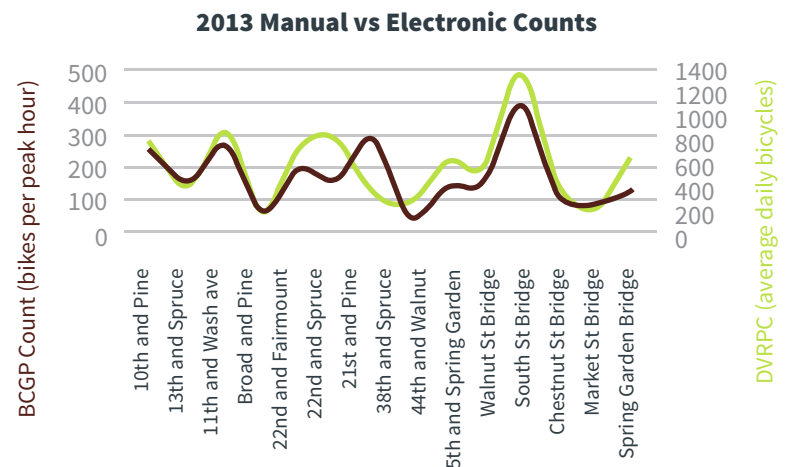


FIGURE 2 Source: BCGP Counts & DVRPC

## 5-Year Bikes Per Peak Hour at Counted Locations

<b>Schuylkill Bridges</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
Market St Bridge	68	80	86	62	95	85
Chestnut St Bridge	121	179	186	87	91	114
Spring Garden Bridge	115	97	124	89	130	127
Walnut St Bridge	137	226	241	105	130	157
South St Bridge	160	*	*	291	338	387
<b>Total Schuylkill Crossings</b>	<b>601</b>	<b>582</b>	<b>637</b>	<b>634</b>	<b>784</b>	<b>870</b>
<b>Streets &amp; BF Bridge</b>						
10th and Pine**	-	85	82	216	188	224
13th and Spruce***	-	120	140	239	258	255
11th and Washington	-	-	-	-	161	158
Broad and Pine	-	-	259	249	246	265
22nd and Fairmount	-	-	-	-	58	69
22nd and Spruce	-	180	216	166	196	190
21st and Pine	-	102	122	137	154	163
38th and Spruce	188	204	202	223	243	285
44th and Walnut	-	-	-	-	56	48
5th and Spring Garden	-	-	-	128	135	134
Frankford and Girard	-	-	-	-	53	56
Ben Franklin Bridge	14	-	-	12	17	13

\* South St Bridge was closed for construction

\*\* 2009 & 2010 were counted at 8th & Pine

\*\*\* 2009 & 2010 were counted at 9th & Spruce

- Dashes indicate years for which no counts were conducted

TABLE 1 Source: BCGP Counts

# WHAT THE COUNTS TELL US

The Bicycle Coalition has counted bicycles on the five bridges crossing the Schuylkill River near Center City annually since 2005. These counts show bicycling rates have increased 260% from 2005-2013 and 44% for the six-year period from 2008-2013 (see Figure 3).

**2005-2013 Schuylkill Bridge Total Crossings**

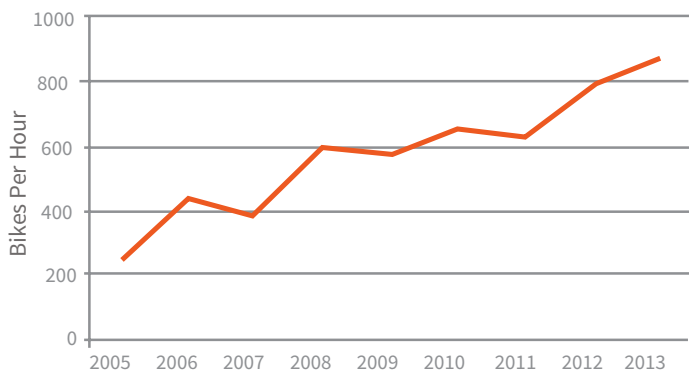


FIGURE 3 Source: BCGP Counts

Yet this bridge's share of bicycle traffic is dropping, carrying only 10% of traffic in 2013. The biggest reason for this is that the Market Street Bridge has no bicycle lanes or other bicycle-friendly design. Ridership on all bridges shows a direct correlation with the quality of bicycling infrastructure.

**2013 Schuylkill Bridge Traffic**

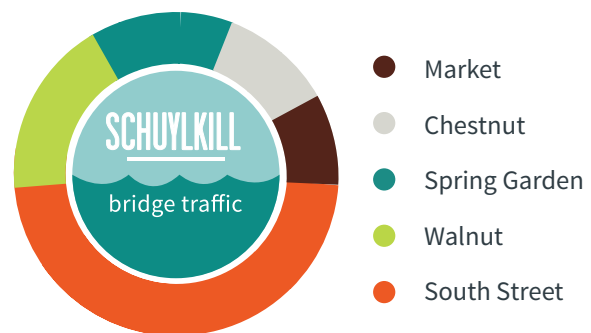


FIGURE 4

## ONE BRIDGE TO RULE THEM ALL

Volumes vary greatly between individual bridges (see Table 2). When the South Street Bridge was closed for reconstruction in 2009-2010, bicycle traffic increased on the nearby Walnut Street and Chestnut Bridges but overall bicycle traffic growth slowed. The South Street Bridge reopened in November 2010, becoming the most bicycle-friendly Schuylkill River crossing. That bridge's share of total bicycle traffic jumped from 26% pre-reconstruction to 46% in 2011 and 44% in 2013. Meanwhile, total bicycle traffic across the river increased, by 2013 reaching 870 bicycles per hour during rush hour.

The South Street Bridge's outsized carriage of 44% of all bridge bicycle traffic (see Figure 4) is a function of its accessibility to bicycles and its proximity to Center City and the University City employment area. Its geographic advantages are not significantly greater than the other bridges surveyed. For example, the Market Street Bridge offers direct access to the Center City employment area.

### 2005-2013 Schuylkill Bridge Counts: Bicycles Per Peak Hour

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Market St Bridge	46	73	68	68	80	86	62	95	85
Spring Garden Bridge*	-	59	-	115	97	124	89	130	127
Chestnut St Bridge	52	74	108	121	179	186	87	91	114
Walnut St Bridge	74	118	94	137	226	241	105	130	157
South St Bridge**	70	107	114	160	-	-	291	338	387
<b>TOTAL</b>	<b>242</b>	<b>431</b>	<b>384</b>	<b>601</b>	<b>582</b>	<b>637</b>	<b>634</b>	<b>784</b>	<b>870</b>

TABLE 2     \*In 2005 & 2007 the Spring Garden Bridge was not counted.  
 \*\*In 2009 & 2010 the South Street Bridge was closed for construction.

### 2005-2013 Schuylkill Bridge Crossing Trends by Bridge

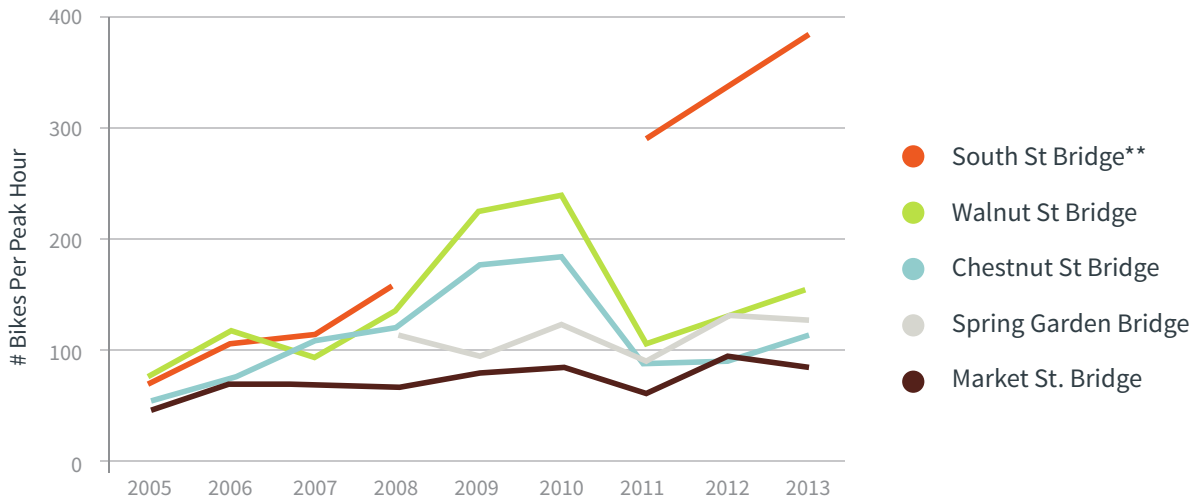


FIGURE 5     \*\*In 2009 & 2010 the South Street Bridge was closed for construction.



# BETTER INFRASTRUCTURE ATTRACTS MORE FEMALE BICYCLISTS

All cyclists are attracted to high-quality infrastructure. BCGP counts show streets with buffered bike lanes carry 78% more bicyclists than streets with standard lanes (132 vs 74 bikes per hour), and 131% more bicyclists (132 vs 57) than streets with no bike lane (see Figure 6).

**2013 Bikes Per Hour & Gender by Facility**

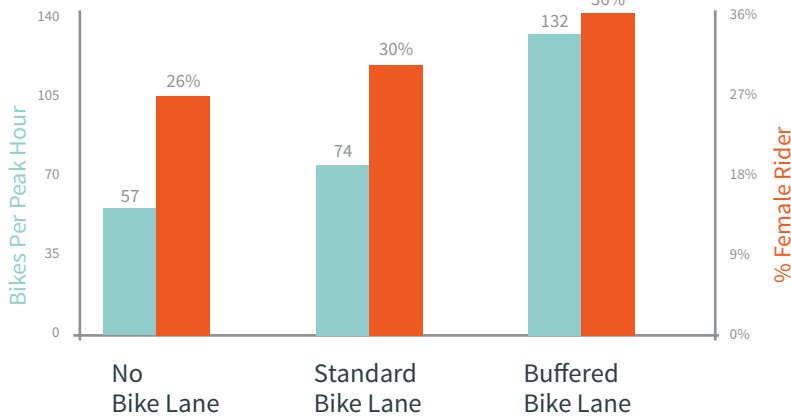


FIGURE 6 Source: BCGP Counts 2013

Female bicyclists also prefer streets with high-quality infrastructure. Overall women comprised 32% of all Philadelphia cyclists counted in 2013, significantly above the national average of 24%. Buffered bike lanes carried 20% more woman than streets with standard bike lanes (see Figure 6). A current maxim of American bicycling holds that the presence of female bicyclists in substantial numbers is an indicator of the perceived safety of a street. The BCGP counts confirm this trend's existence in Philadelphia.

**2013 Sidewalk Riding by Facility**

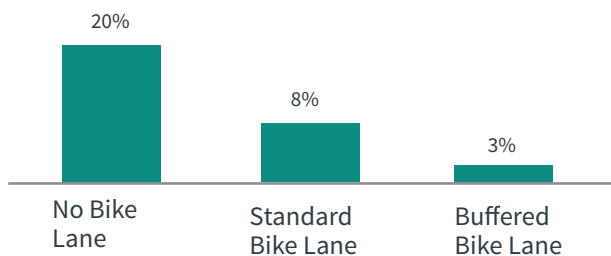


FIGURE 7

**2005-2013 Behavior Trends**

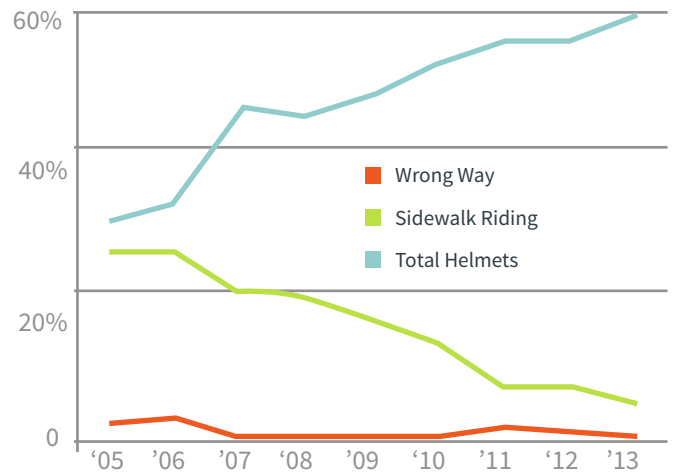


FIGURE 8 Source: BCGP Counts

**2005-2013 Behavior Changes**

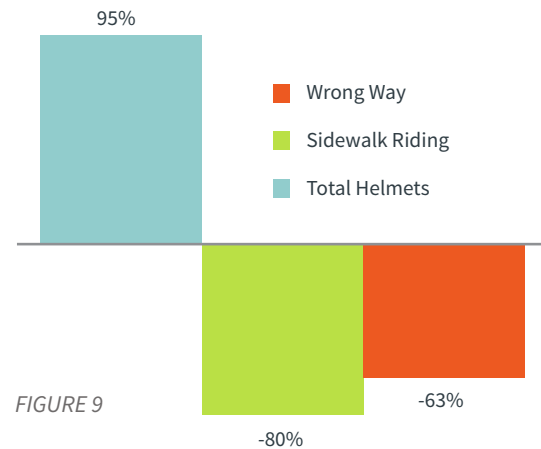


FIGURE 9

## BETTER BIKE LANES, BETTER BICYCLISTS

Since 2005 bicyclist behavior has steadily improved. From 2005 to 2013, helmet use has risen 95% and sidewalk riding is down 80%. Wrong-way riding is down 63% and comprises only 1% of the total bicycling population (see Figures 8-9). These trends are accentuated on streets with higher-quality bicycle infrastructure (see Appendix A). Streets with buffered bike lanes have more helmet use and less sidewalk riding. Likewise, streets with standard bike lanes have better behavior than streets with no bike lane (see Figure 7).

# HOW PHILADELPHIA COMPARES

## LEADING AMERICAN BICYCLING CITY

Of the 10 most populous cities in the United States, Philadelphia has the highest percentage of people bicycling work (aka bicycle mode share; see Figure 10). This data comes from the US Census Bureau's 1-year American Community Survey for 2012. Philadelphia also experienced the largest percent increase (27.8%) in mode share among this cohort of cities from 2011 to 2012, rising from 1.8% to 2.3%.

The implementation of bike share will be key to Philadelphia maintaining its leading position. Cities that recently implemented bike share systems, such as Chicago and New York, are experiencing increases that are not yet reflected in the census data.

Density is a key factor in encouraging all types of active transportation. The pie charts (see Figure 11) illustrate the relationship between density and travel choices in the six most populous cities in the United States. The cities with similar densities display remarkably similar distributions across the various forms of commuting transportation. This is most pronounced between Philadelphia and Chicago, where Philadelphia sees slightly higher rates of bicycling and walking but nearly identical rates for public transit and driving.

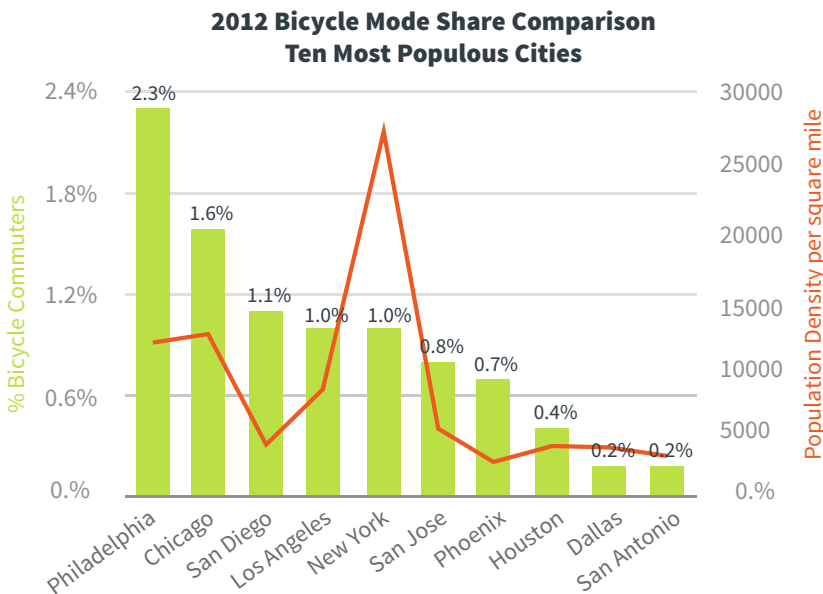
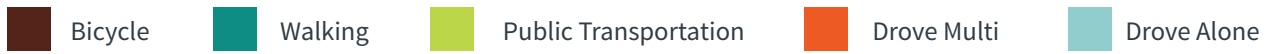


FIGURE 10 Source: 1yr. ACS data

## HOW THE TOP 10 BIG CITIES TRAVEL TO WORK

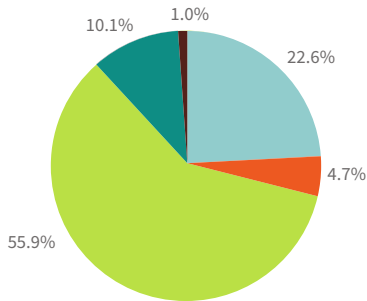
Population density is a determining factor in how residents travel to their jobs. Figure 10 shows the bicycle mode share of the top ten most populous cities and their respective population density. Only New York City's anomolous density throws off the clear relationship between density and bicycle commuting mode share.

# HOW THE MOST POPULOUS CITIES TRAVEL



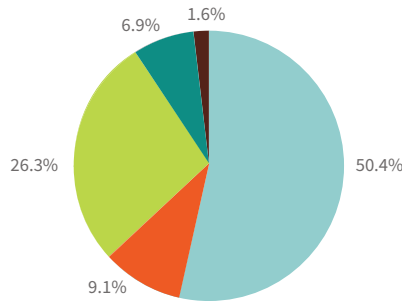
**New York Mode Split 2013**

27,000 people per square mile



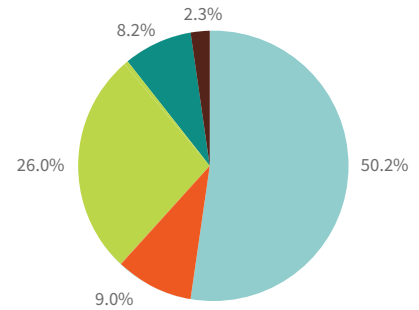
**Chicago Mode Split 2013**

11,900 people per square mile



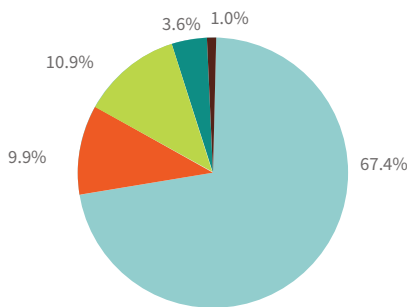
**Philadelphia Mode Split 2013**

11,400 people per square mile



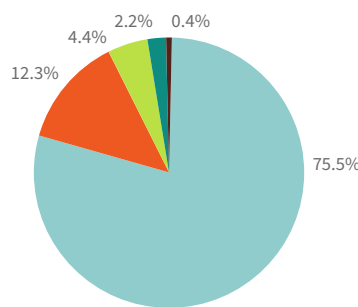
**Los Angeles Mode Split 2013**

8,100 people per square mile



**Houston Mode Split 2013**

3,600 people per square mile



**Phoenix Mode Split 2013**

2,800 people per square mile

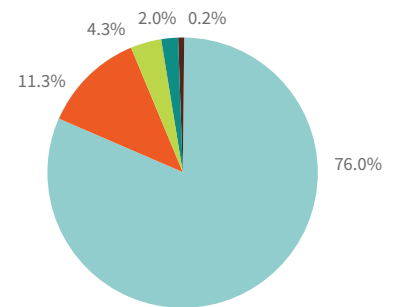


FIGURE 11 Source: 1yr. ACS data

## HOLDING OUR OWN AGAINST THE FIELD

Expanding the comparison to a wider range of American cities still shows Philadelphia with a high rate of bicycle commuting. Philadelphia ranks #11 in bicycle mode share among cities with populations over 200,000 (see Figure 12). Breaking Philadelphia down into neighborhoods reveals localized areas of very high bicycle commuting, as identified through the US Census Bureau’s Public Use Microdata Areas (PUMAs). South Philadelphia has a 5.5% bicycle commute mode share and Center City has 5.3% (see Table 3).

Center City and South Philly rank in the top 25 for bicycle commuting mode share across PUMAs nationwide. Only Philadelphia, Portland (OR), and San Francisco placed two PUMAs in the top 25 (see Table 3).

## 2012 Top 15 Cities by Bicycle Mode Share (with population > 200,000)

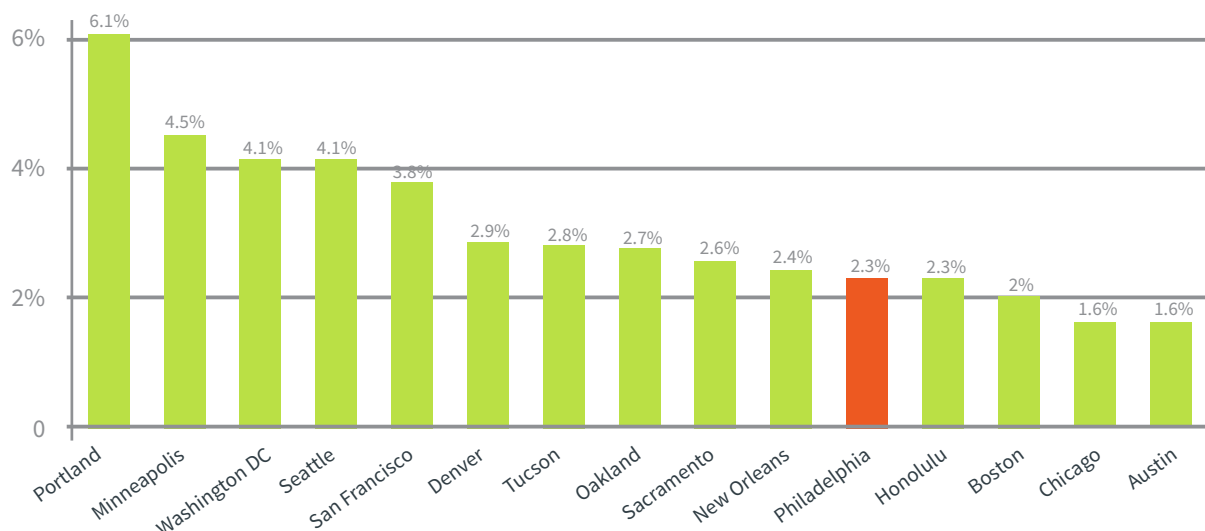


FIGURE 12 Source: 1yr. ACS data

### Geography (PUMA area)

### % Who Bicycle to Work

Portland City (North & Northeast), Oregon	10.3
Madison City (Central), Wisconsin	10.0
Portland City (Central East), Oregon	9.7
Boulder County (Central)--Boulder City, Colorado	9.4
Yolo County--Davis, Woodland & West Sacramento Cities, California	9.1
Santa Clara County (Northwest)--Mountain View, Palo Alto & Los Altos Cities, California	8.5
Santa Barbara County--South Coast Region, California	8.2
Lane County (West Central)--Eugene City (West & South), Oregon	8.2
Alameda County (North)--Berkeley & Albany Cities, California	7.9
San Francisco County (Central)--Inner Mission & Castro, California	7.0
Middlesex County (East)--Cambridge City, Massachusetts	6.9
Miami-Dade (South/Outside Urban Development Boundary) & Monroe Counties, Florida	6.7
Portland City (Southeast), Oregon	6.5
Tucson City (Northwest), Arizona	6.4
San Francisco County (Central)--South of Market & Potrero, California	6.3
Santa Cruz County (South & Coastal)--Santa Cruz City, California	6.1
Maricopa County--Tempe City (North), Arizona	5.8
Sacramento County (West)--Sacramento City (Central/Downtown & Midtown), California	5.8
Alachua County (Central)--Gainesville City (Central), Florida	5.7
Larimer County (North)--Fort Collins City, Colorado	5.5
Philadelphia City (Southeast), Pennsylvania	5.5
District of Columbia (Central), District of Columbia	5.4
Philadelphia City (Center City), Pennsylvania	5.3
Denver City (South Central), Colorado	5.1

TABLE 3 Source: 3yr. ACS data

# PHILADELPHIA BICYCLING IS EXPANDING

## BEYOND THE CITY CORE

Between 2009 and 2012, three of Philadelphia's 11 PUMAs saw significant increases in cycling to work (see Figure 13 and Table 4). In southwest Philadelphia, including University City, cycling rose 95%, from 2.1% to 4.1%.

The area just north and northwest of Center City (including the Brewerytown and Temple University neighborhoods) rose 178% from 0.9% to 2.5%. The neighborhoods just northeast of Center City (including the Fishtown and Kensington neighborhoods) saw bicycling increase by 42.9% (from 1.4% to 2%).

2012 Bicycle Commuting Rate by Neighborhood

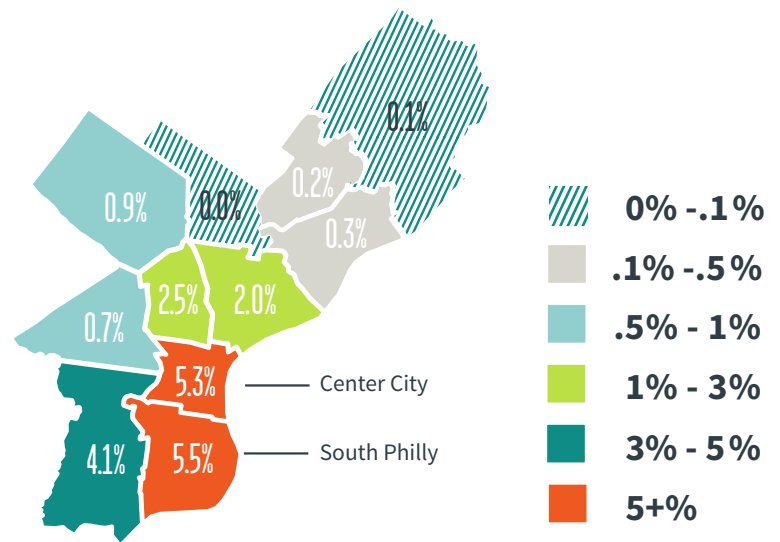


FIGURE 13 Source: 1yr. ACS data

2009-2012 Bicycle Commuting Rates by Philadelphia PUMA

PUMA	2009	2012
Far Northeast	0.1%	0.1%
Near Northeast West	0.3%	0.2%
Near Northeast East	0.2%	0.3%
North	0.1%	0.0%
Northwest	0.8%	0.9%
East	1.4%	2.0%
Central	0.9%	2.5%
West	1.4%	0.7%
Center City	5.4%	5.3%
Southwest	2.1%	4.1%
Southeast	5.2%	5.5%

TABLE 4 Source: US Census Bureau ACS 1-year Data (2012 and 2009)

## Appendix A | 2013 Bicycling Behavior by Bike Count

Street	Bike Lane	# Bikes per hour	% Female	Sidewalk Riding	Wrong Way	Helmet	Female Helmet
<b>Best Behavior &lt; 1% Sidewalk-riding</b>							
South St Bridge E	Buffered	194	44%	0.34%	0.0%	73%	78%
Spruce @ 13th	Buffered	135	34%	0.49%	1.2%	73%	90%
South St Bridge W	Buffered	193	40%	0.52%	0.2%	75%	85%
13th @ Spruce	Buffered	120	35%	0.56%	0.4%	54%	68%
Pine @ Broad	Buffered	170	38%	0.98%	0.4%	61%	70%
<b>Moderate Behavior 1-5% Sidewalk-riding</b>							
Pine @ 21st	Buffered	118	37%	0.99%	0.0%	72%	80%
22nd @ Spruce	Standard	84	35%	1.2%	1.0%	63%	70%
Pine @ 10th	Buffered	122	35%	1.4%	0.1%	54%	64%
Spring Garden @ 5th	Standard	112	29%	1.8%	1.2%	50%	72%
Spring Garden Bridge	Standard	73	39%	1.8%	0.7%	70%	78%
10th @ Pine	Buffered	102	31%	1.9%	1.1%	40%	53%
Spruce @ 22nd	Buffered	106	36%	2.0%	0.6%	69%	79%
Spring Garden Bridge	Standard	54	33%	2.2%	0.6%	70%	75%
Walnut St Bridge	Buffered	157	34%	2.7%	0.2%	66%	78%
38th @ Spruce	Standard	137	36%	2.7%	0.6%	53%	64%
Spruce @ 38th	Standard	148	32%	3.0%	0.6%	59%	69%
21st @ Pine	None	45	41%	3.7%	0.4%	54%	70%
5th @ Spring Garden	Standard	22	26%	3.8%	0.0%	48%	74%
Fairmount @ 22nd	Standard	51	33%	4.3%	0.7%	62%	69%
11th @ Washington	Standard	81	27%	4.6%	2.1%	33%	44%
<b>Worst Behavior &gt;5% Sidewalk-riding</b>							
13th @ CB Moore	None	61	31%	8.8%	2.3%	40%	43%
22nd @ Fairmount	Standard	18	31%	10.3%	1.9%	63%	70%
Broad @ Pine	None	95	21%	14.4%	3.8%	32%	54%
Washington @ 11th	Standard	77	13%	15.4%	3.2%	16%	47%
CB Moore @ 13th	Standard	43	32%	15.5%	8.3%	22%	29%
Chestnut St Bridge	Standard	114	34%	15.7%	0.3%	61%	73%
44th @ Walnut	Standard	15	26%	15.9%	6.8%	59%	87%
Walnut @ 44th	Buffered	33	28%	17.0%	3.0%	48%	62%
Market St Bridge E	None	49	24%	34.5%	1.0%	51%	59%
Market St Bridge W	None	36	27%	39.9%	1.0%	57%	69%

### Total 2013 Behavior

**All Facilities** **92** **32%** **8%** **1.5%** **55%** **67%**

APPENDIX A Source: BCGP Counts 2013

Each line represents the bicycle volume on a street at a given intersection, not the volume at the whole intersection itself. Thus, for example, Pine Street at 21st has a buffered bike lane and 118 bikes per hour. Meanwhile 21st Street at Pine has no bike lane and 45 bikes per hour.

# CON CLUSION

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Philadelphia continues to be a leading American city for bicycle commuting, especially among the nation's most populous cities. That supremacy may be challenged by cities that invested earlier in bike share systems and have significantly improved their cycling infrastructure. The BCGP bike counts confirm that higher-quality infrastructure improves both the number of cyclists and their behavior.

Philadelphia must continue improving its infrastructure to meet and safely manage its existing bicycling rates, and to prepare for the increase in bicycling that will come with the arrival of bike share.

In the upcoming months the Bicycle Coalition will be releasing a companion report to this one containing specific recommendations for how Philadelphia can encourage and protect bicycling through infrastructure, legislation, and other efforts.

## **ABOUT THE BICYCLE COALITION OF GREATER PHILADELPHIA**

Founded in 1972, the Bicycle Coalition of Greater Philadelphia (BCGP) is the region's largest bicycle advocacy and education organization. Our mission is to make bicycling a safe and fun way to get around for anyone in Greater Philadelphia. We work closely with elected officials, city agencies, schools, neighborhood groups, and the public to advocate for safe streets for all users.

INFOGRAPHICS

On the next several pages are two infographics containing some of the statistical findings contained in this report. These infographics were released separately from this report.



# BIKE PHL FACTS

We have been counting bicycles in Philadelphia since 2005. The data we collected from 2005-2013 reveals a city increasingly getting around on two wheels.

FACT:

BICYCLING GREW



**260%**  
between  
**2005-2013**  
(measured by increase in rush hour bike traffic over measured Schuylkill River bridges)

AN UNDENIABLE GROWTH



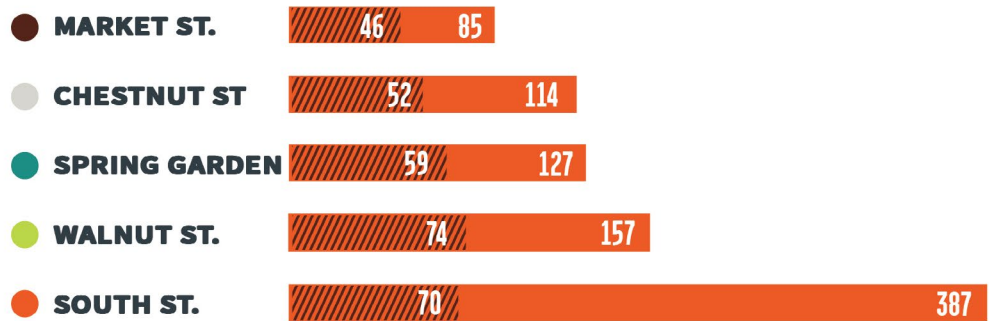
**44%** of all bicyclists crossing the Schuylkill river are carried by the **South St. Bridge**

SCHUYLKILL RIVER

bridge crossing trends

number of bikes per peak hour

//// 2005  
■ 2013

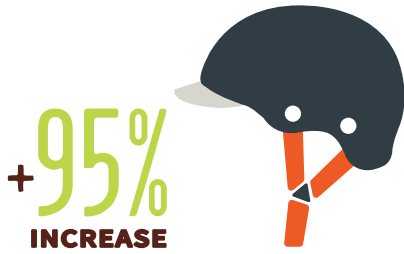


Total bicycle traffic over the Schuylkill River per peak hour

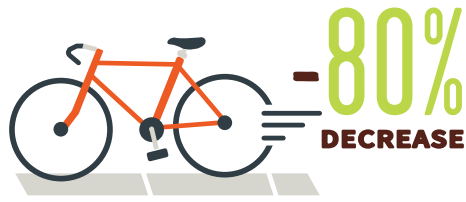




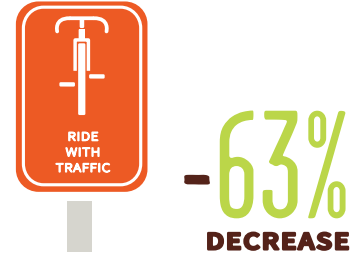
## BETTER BEHAVIOR



✓ **HELMET USE**



✗ **SIDEWALK RIDING**



✗ **WRONG WAY**

## BIKE LANES

the better the bike lane, the better bicyclists behave

### SIDEWALK RIDING 2013



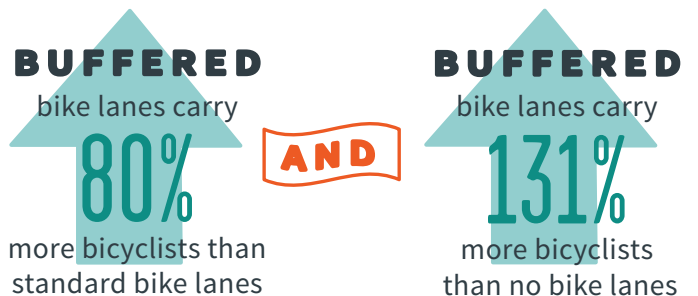
## THE FEMALE CYCLIST

### ONE THIRD

Philadelphia has more women riding bicycles than the national average



**Our counts** suggest that higher quality bicycle infrastructure attracts more total bicyclists and encourages more women to ride.



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### How do the Bicycle Coalition's manual counts compare to government sponsored data?

The data is well correlated with U.S. Census Bureau data as well as electronic counts administered by the Delaware Valley Regional Planning Commission.

Data source: Bicycle Coalition's manual bike counts conducted annually at key intersections and Schuylkill River bridges.

Read full report at: [bicyclecoalition.org/reports](http://bicyclecoalition.org/reports)



**BICYCLE  
COALITION  
OF GREATER  
PHILADELPHIA**

# BIKE PHL FACTS

We have been counting bicycles in Philadelphia since 2005. The data we collected from 2005-2013 reveals a city increasingly getting around on two wheels.

## NEIGHBORHOOD COMMUTERS

**FACT:**

**PHILLY**

has **TWO** of the nation's

**TOP 25**

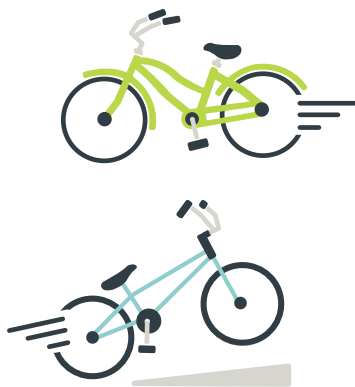


**NEIGHBORHOODS FOR  
BICYCLE COMMUTING**

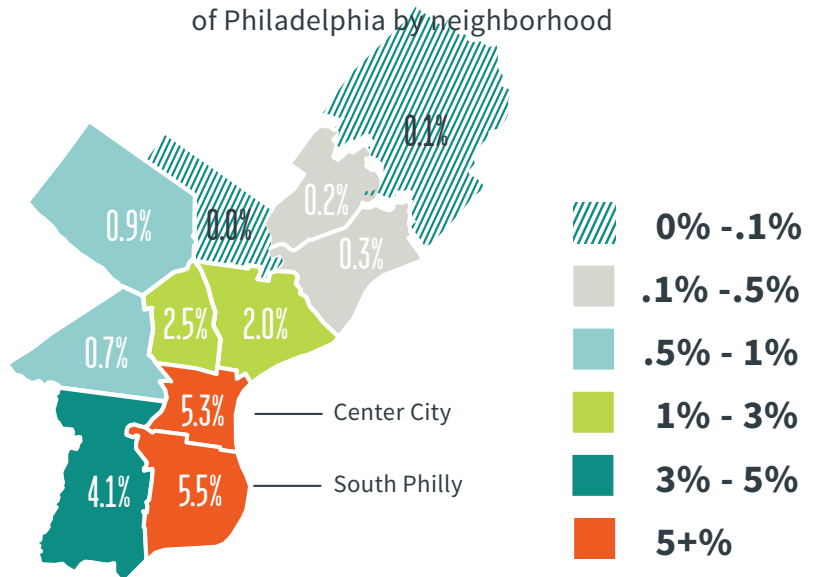


**MODE SHARE -**

commuters who choose to commute by bicycle (counted by the US Census: ACS on a yearly basis)



**PERCENT BICYCLE COMMUTERS\***  
of Philadelphia by neighborhood



# A LEADING CITY

## PHILADELPHIA

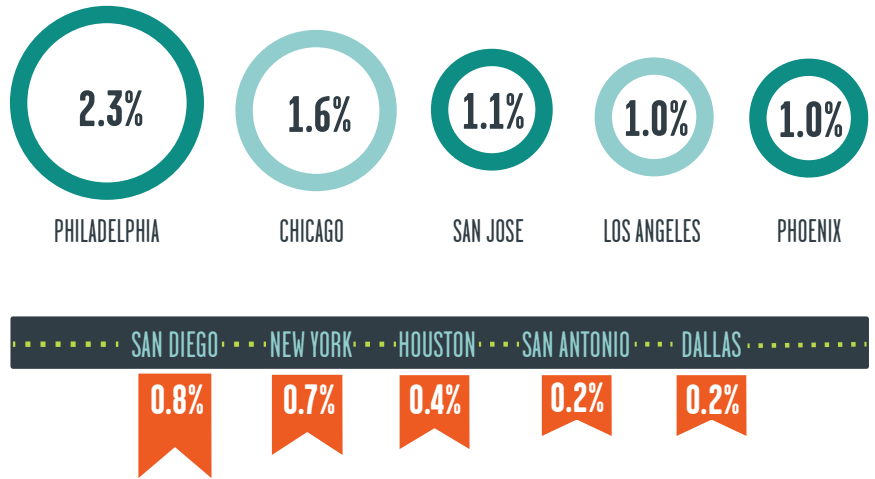
Philadelphia is the #1 big city for bicycle commuting in the United States

# #11

Philadelphia ranks #11 among cities with populations over 200,000 in bicycle commuting mode share

## MOST POPULOUS US CITIES

bicycle mode share comparison\*\*

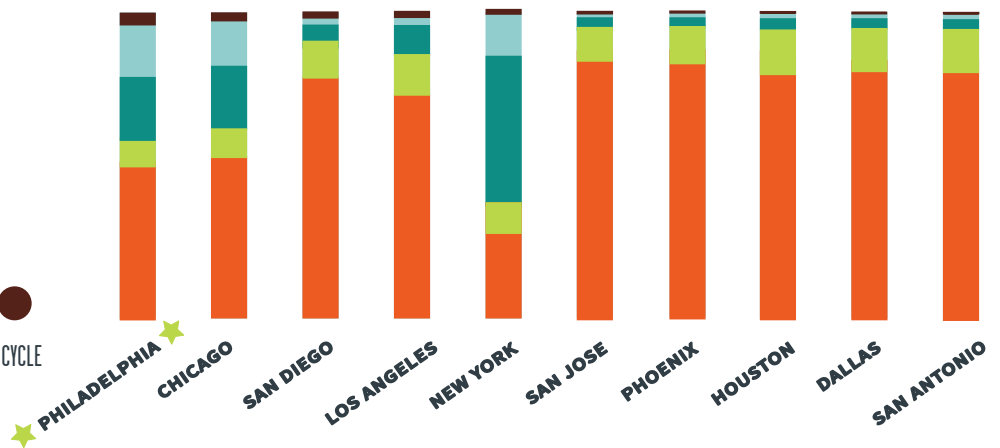


## TRAVELING

Of the top 10 most populated cities, Philadelphia has the 2nd highest percentage of commuters who do not drive to work



## HOW THE TOP 10 TRAVEL \*\*



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### Source:

\*US Census Bureau - 2010-2012 American Community Survey, Pennsylvania Department of Transportation, Delaware River Basin, New Jersey OIT Office of Geographic Information Systems

\*\*American Community Survey 2012 one-year data

Read full report at: [bicyclecoalition.org/reports](http://bicyclecoalition.org/reports)