Mode *Shift*

Philadelphia's Two-Wheeled *Revolution* in Progress

BICYCLE COALITION OF GREATER PHILADELPHIA

May 2011

The Bicycle Coalition of Greater Philadelphia

Make bicycling better through **advocacy** and **education** by promoting biking as a **healthy**, **low-cost**, and **environmentally-friendly** form of transportation and recreation.

What the Data Says About Bicycling in Philadelphia

BICYCLE COALITION OF GREATER PHILADELPHIA

Bicycle Coalition Annual Counts

Bicycling has increased over time

Average Number of Bikes Per Hour For Selected Streets

	1990	2005	2006	2007	2008	2009	2010
Counted Locations							
8th and Pine						85	82
9th and Spruce						120	140
Broad and Chestnut		79	83		126	95	108
Broad and Pine		130	116				259
22nd and Spruce		58	84			180	216
21st and Pine						102	122
38th and Spruce			129	163	188	204	202
Walnut St Bridge	32	74	118	94	137	226	241
South St Bridge	60	70	107	114	160		
Chestnut St Bridge	18	52	74	108	121	179	186
Market St Bridge	19	46	73	68	68	80	86
Spring Garden Bridge			59		115	97	124
JFK Bridge		16	23			25	20
Schuylkill Crossings Total (w/Spring Garden + JFK)			453		601	607	657
Schuylkill Crossings Total (without Spring Garden)	129	258	394	384	486	509	532
Schuylkill Crossings Average Counts (with Spring Garden)		61	86	96	120	145	159
Average Number of Bikes Per Hour for all Counted	32	66	87	109	131	127	149

BICYCLE COALITION OF GREATER PHILADELPHIA

Rates of Change In Bikes Per Hour

	2009 to 2010	2005 to 2010	1990 to 2010
Broad and Chestnut	14%	37%	
Broad and Pine		99%	
22nd and Spruce	20%	272%	
Walnut St Bridge	7%	227%	653%
Chestnut St Bridge	4%	255%	931%
Market St Bridge	8%	86%	352%
JFK Bridge	-19%	25%	
Schuylkill Bridge Average Counts (with Spring Garden)	-10%	117%	
Average Number of Bikes Per Hour for all Counted Locations	17%	127%	361%

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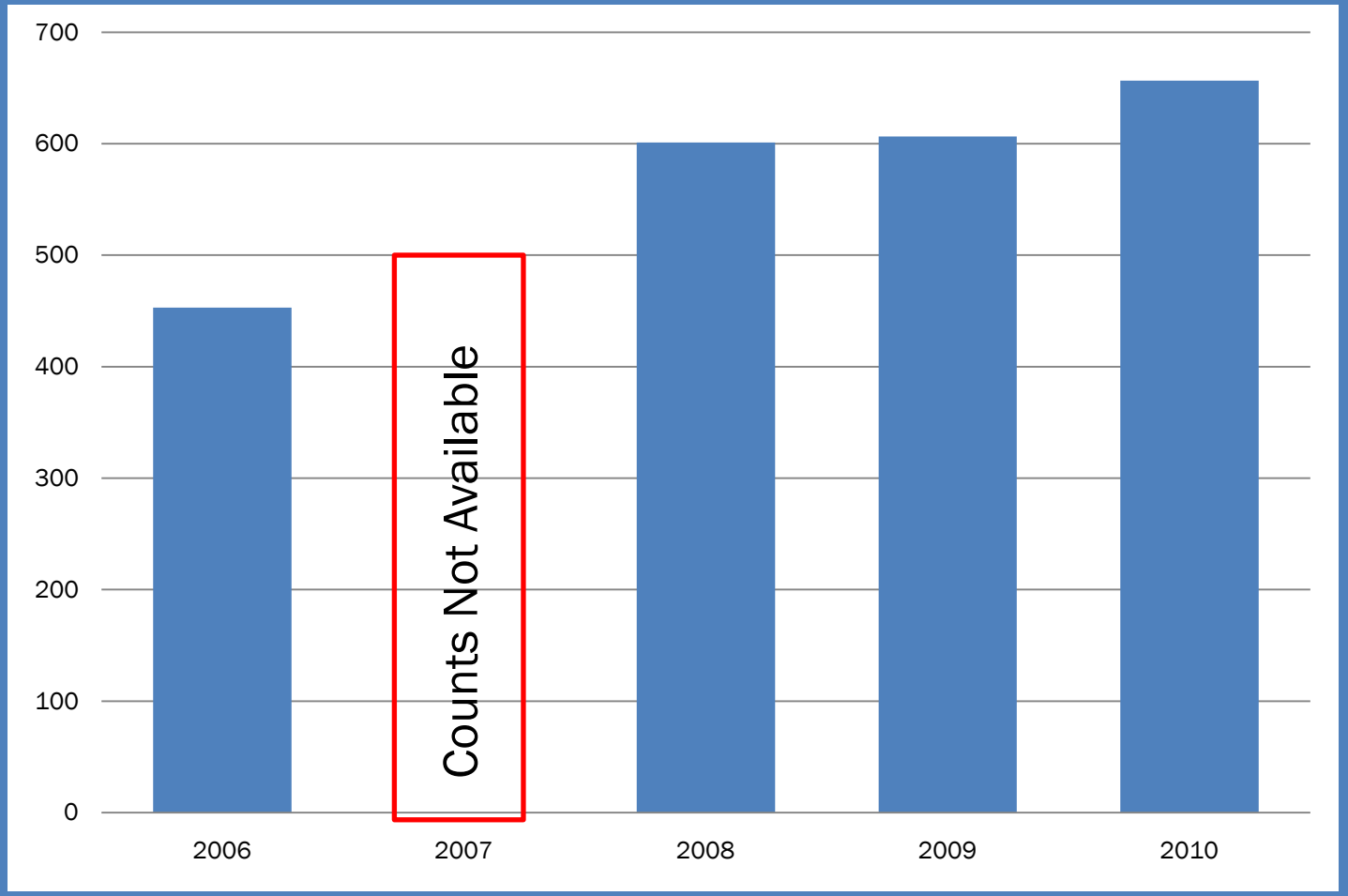
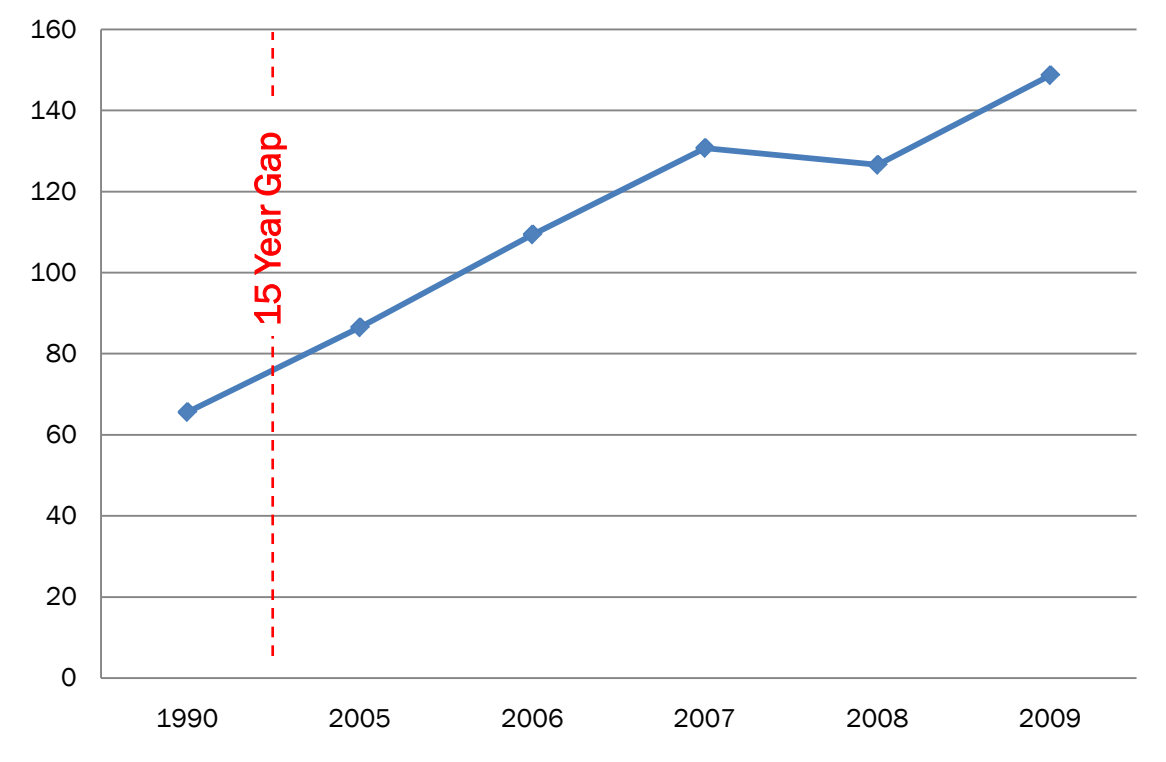
Total Bikes Per Hour Crossing the Schuylkill River



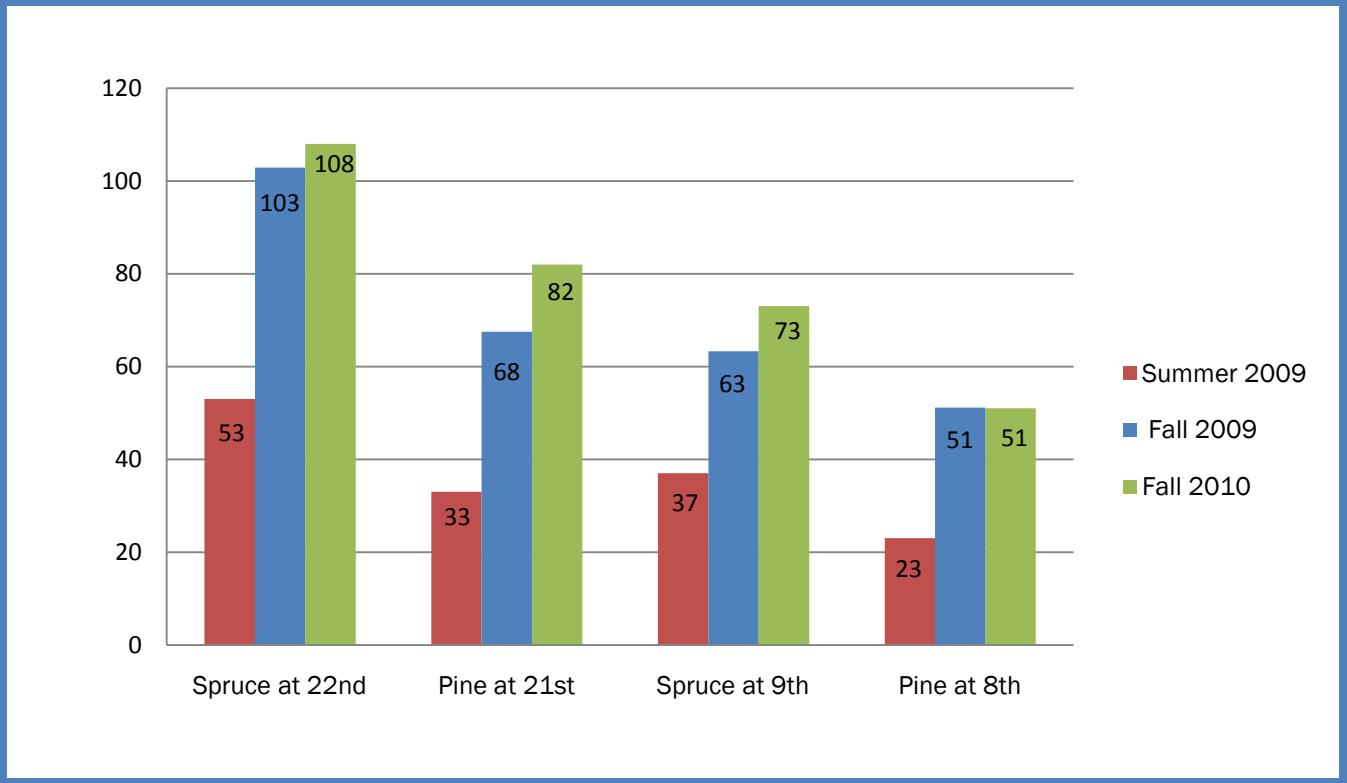
Average Bikes Per Hour
In all Counted Locations



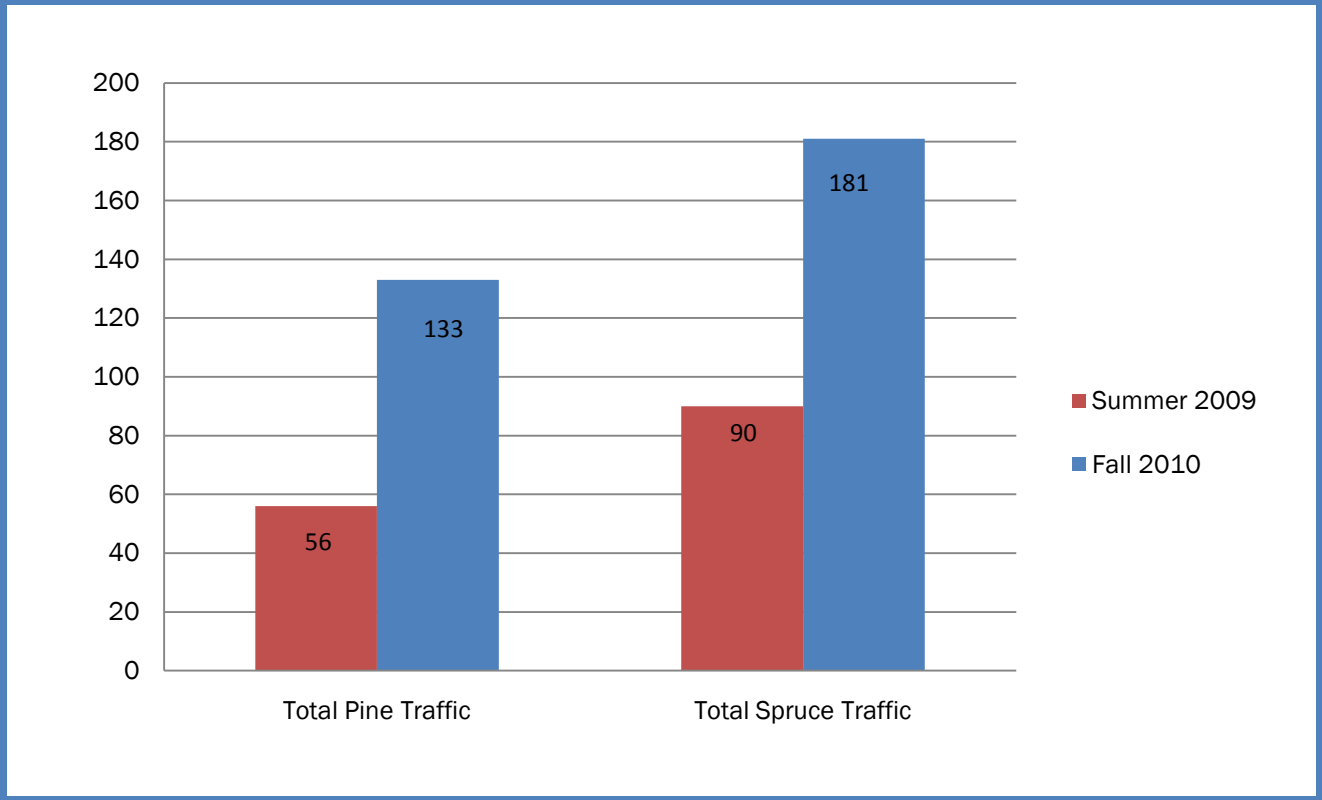
Bike Lanes Increase Bike Traffic

BPH On Pine and Spruce Street Intersections

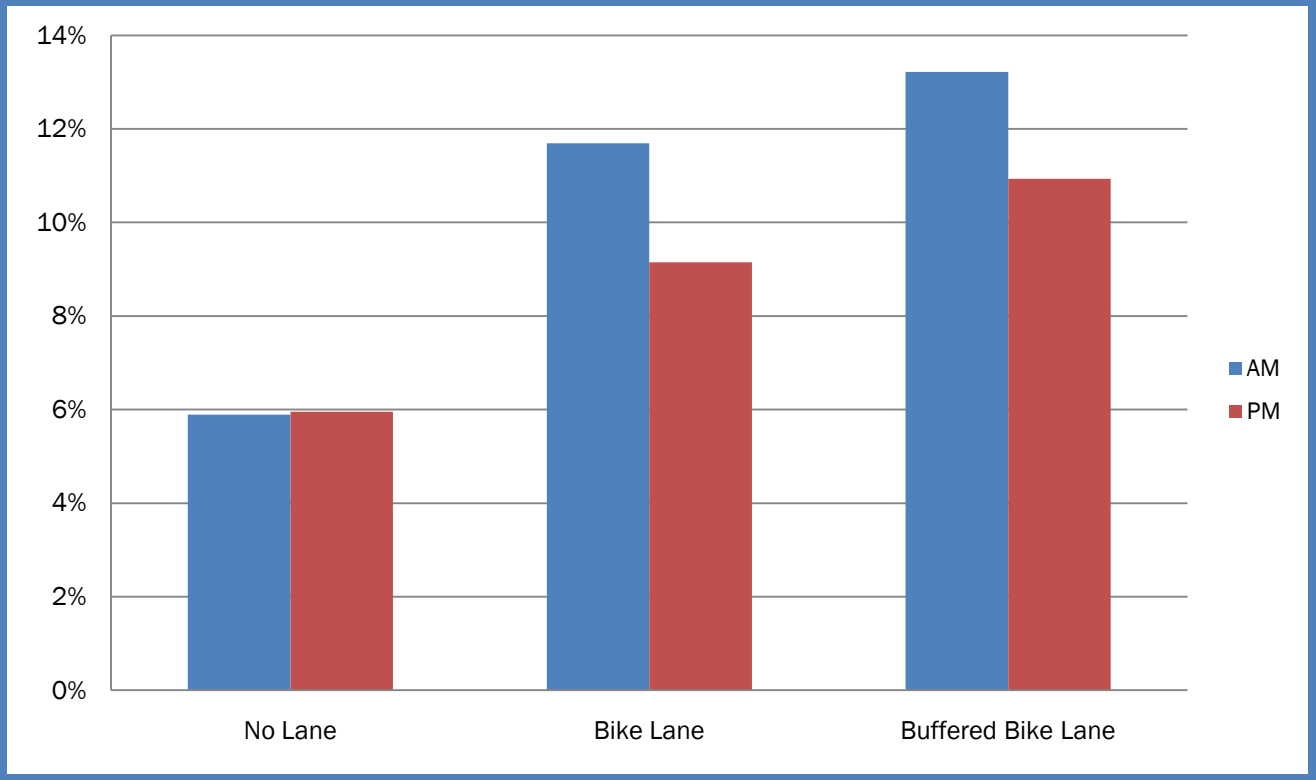
Before and After Installation of Buffered Bike Lanes



Total of Bicyclists per Hour On Pine and Spruce (All Intersections)



Share of Vehicle Traffic That is Bicycles (All Counted Streets)



Change in Ridership
On Selected Streets Since 2005

	2005 to 2006	2005 to 2010
Pine	-1%	237%
Spruce	49%	342%
Broad	-10%	52%
22nd	71%	288%

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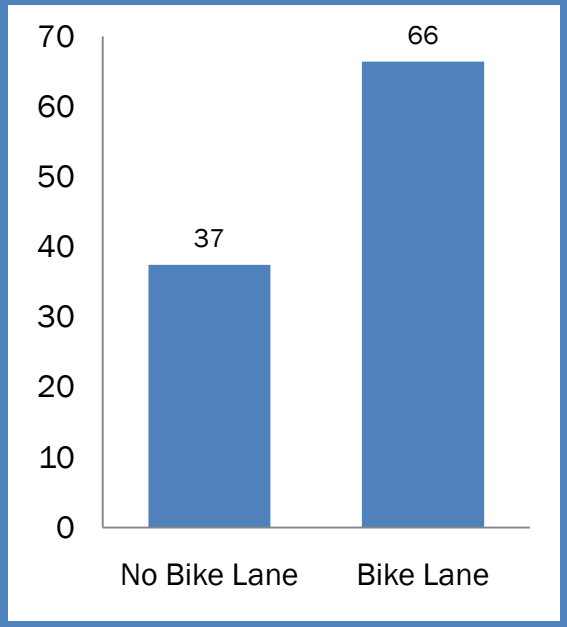
Average Hourly Count of Riders On Streets With and Without Bike Lanes



Gender Split and Behavior

Location	Percent Female	Percent Helmets	Percent Sidewalk	Percent Wrong Way	Percent Helmets Male	Percent Helmets Female
Spring Garden St Bridge	37%	64%	3%	1%	57%	76%
JFK Bridge	18%	48%	34%	2%	48%	18%
Market St Bridge	22%	33%	43%	0%	25%	61%
Chestnut St Bridge	37%	65%	16%	1%	58%	78%
Walnut St Bridge	38%	48%	7%	1%	44%	54%
38th and Spruce	36%	57%	11%	1%	49%	71%
Broad and Chestnut	20%	28%	14%	2%	23%	48%
Broad and Pine	28%	37%	13%	1%	30%	56%
22nd and Spruce	36%	60%	1%	1%	54%	72%
21st and Pine	37%	60%	3%	1%	53%	71%
9th and Spruce	33%	40%	3%	1%	34%	55%
8th and Pine	34%	42%	9%	2%	37%	51%
2010 Average	32%	50%	13%	1%	44%	59%
2006 Average	38%	31%	24%	3%	N/A	N/A

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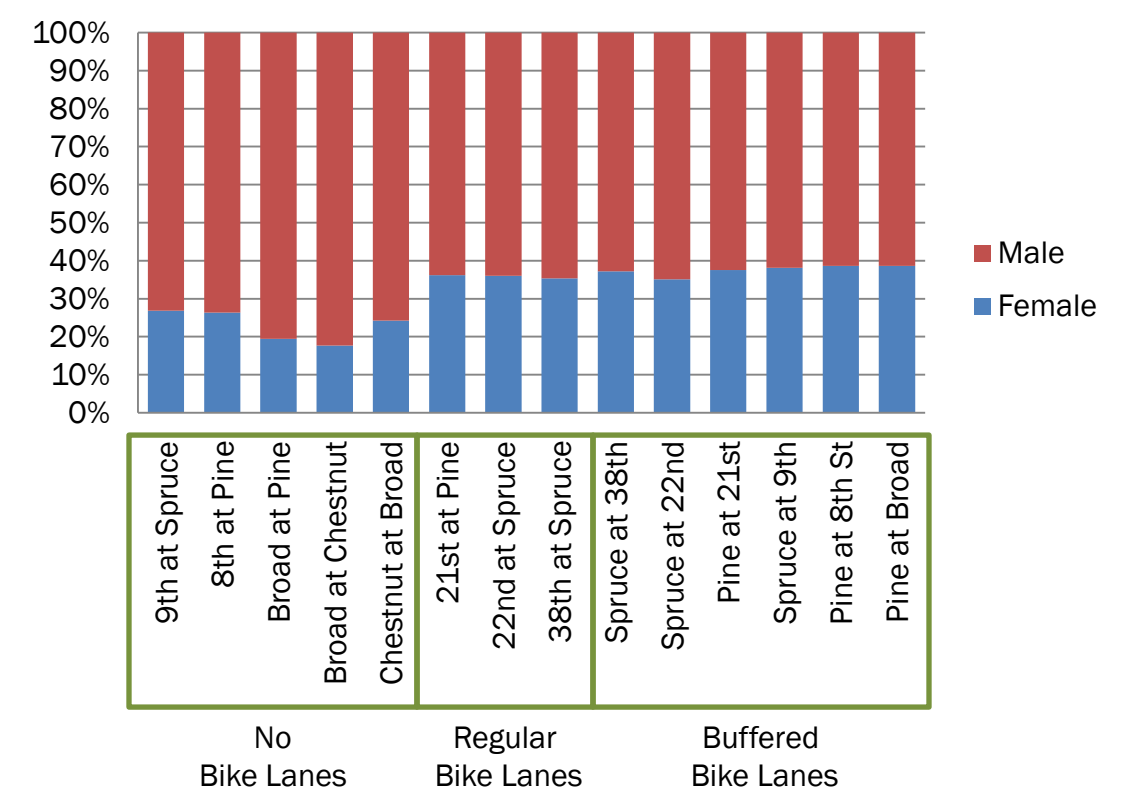
Streets with Bike Lanes Attract More Females

Male/Female Split On Different Types of Bicycle Facilities



Women are an “Indicator Species”
For bicycle-friendly cities

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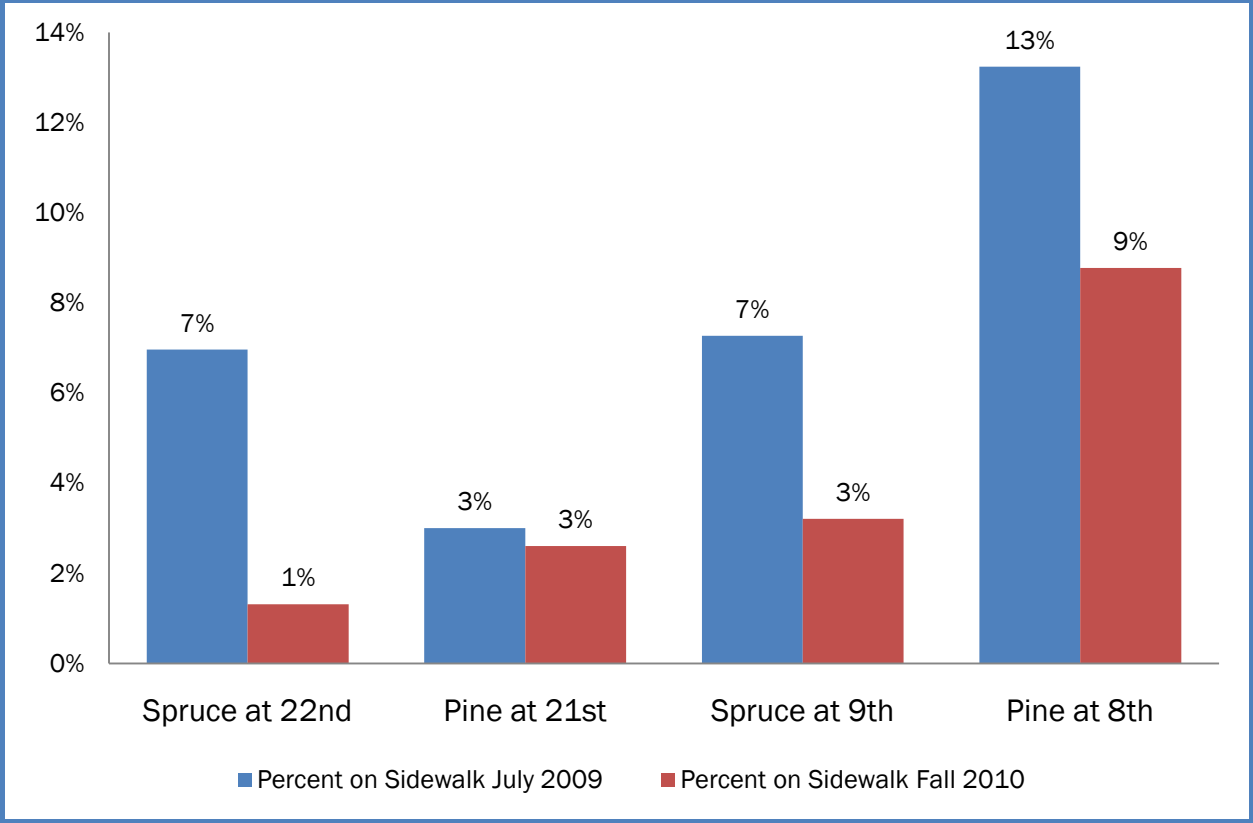
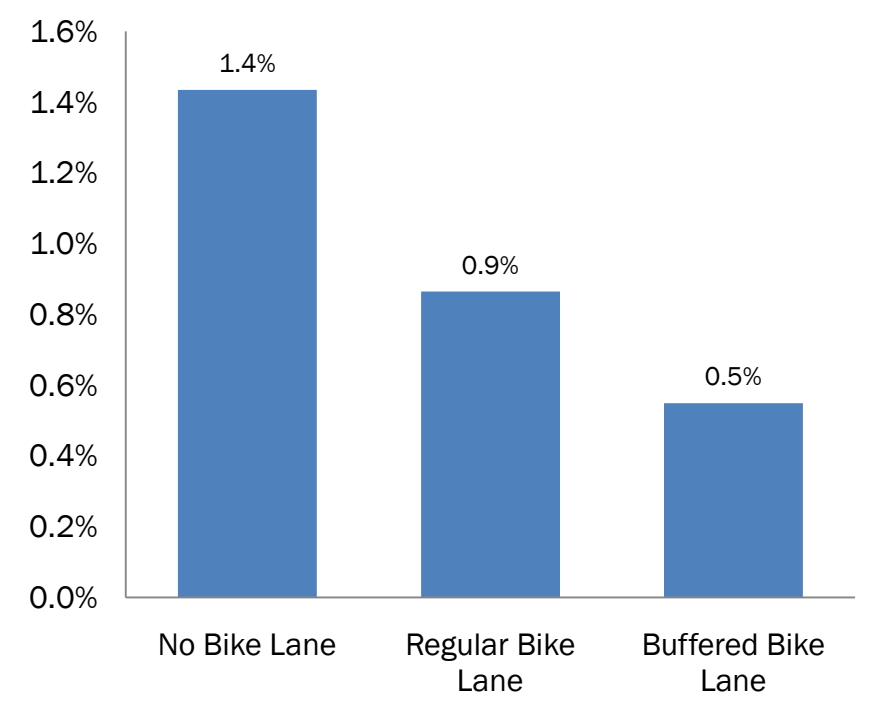
Bike Lanes Improve Cyclist Behavior

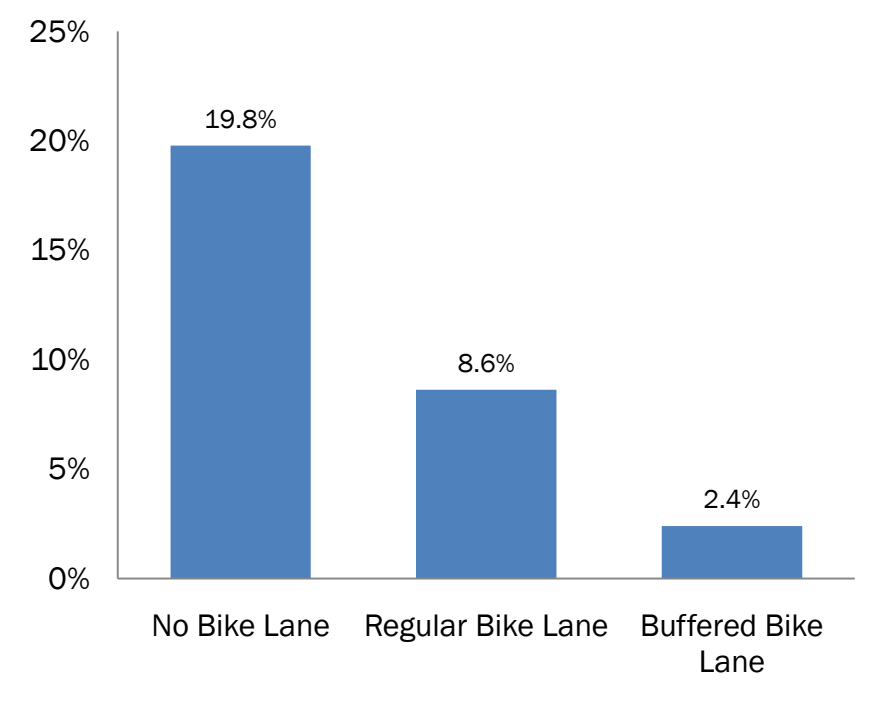
Impact of Spruce and Pine Sidewalk Riding July 2009 to October 2010



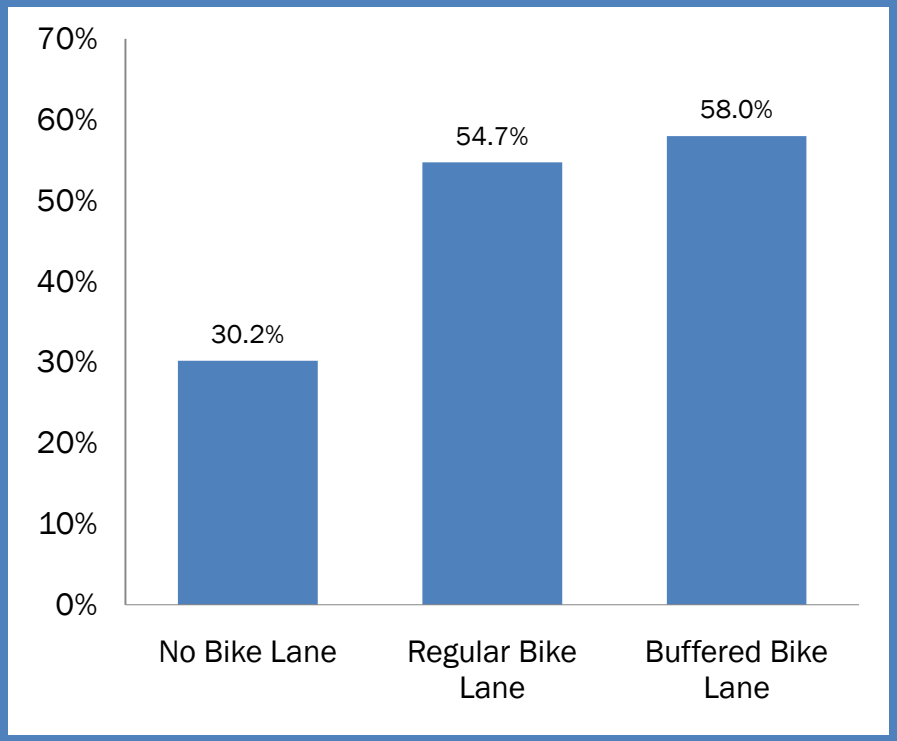
Wrong-Way Riding



Sidewalk Riding



Helmet Use


70%
60%
50%
40%
30%
20%
10%
0%
30.2%
54.7%
58.0%
No Bike Lane
Regular Bike Lane
Buffered Bike Lane

U.S. Census Data on Bicycle Mode Share for Philadelphia

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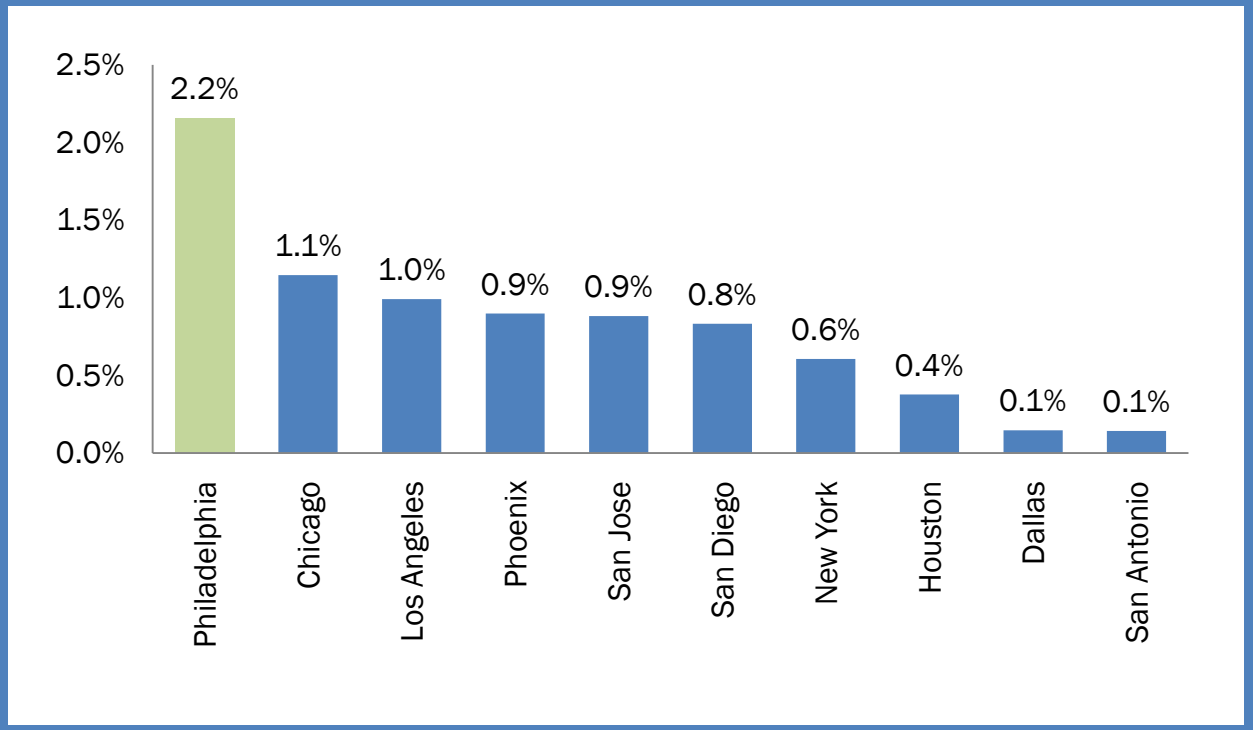
Twice the Mode Share As the Next Big City Among Large U.S. Cities



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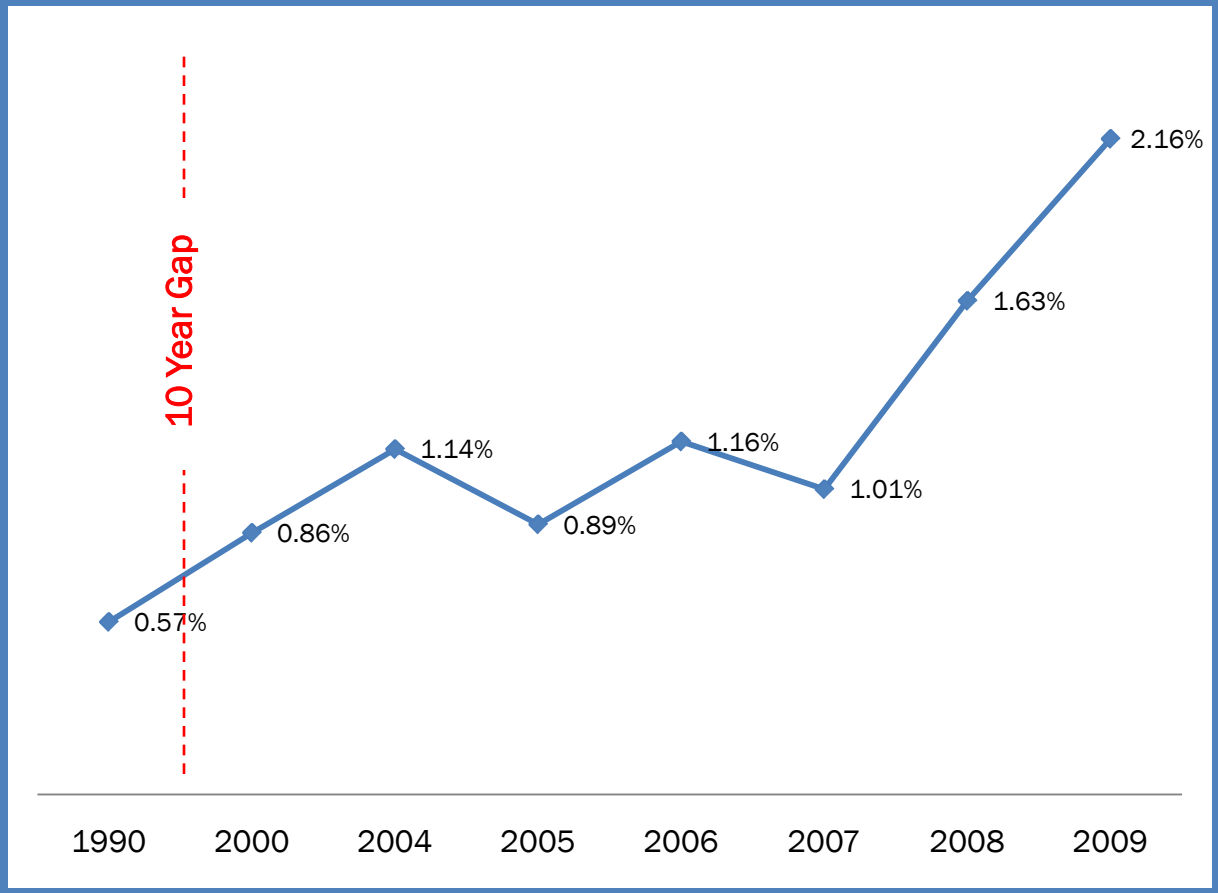
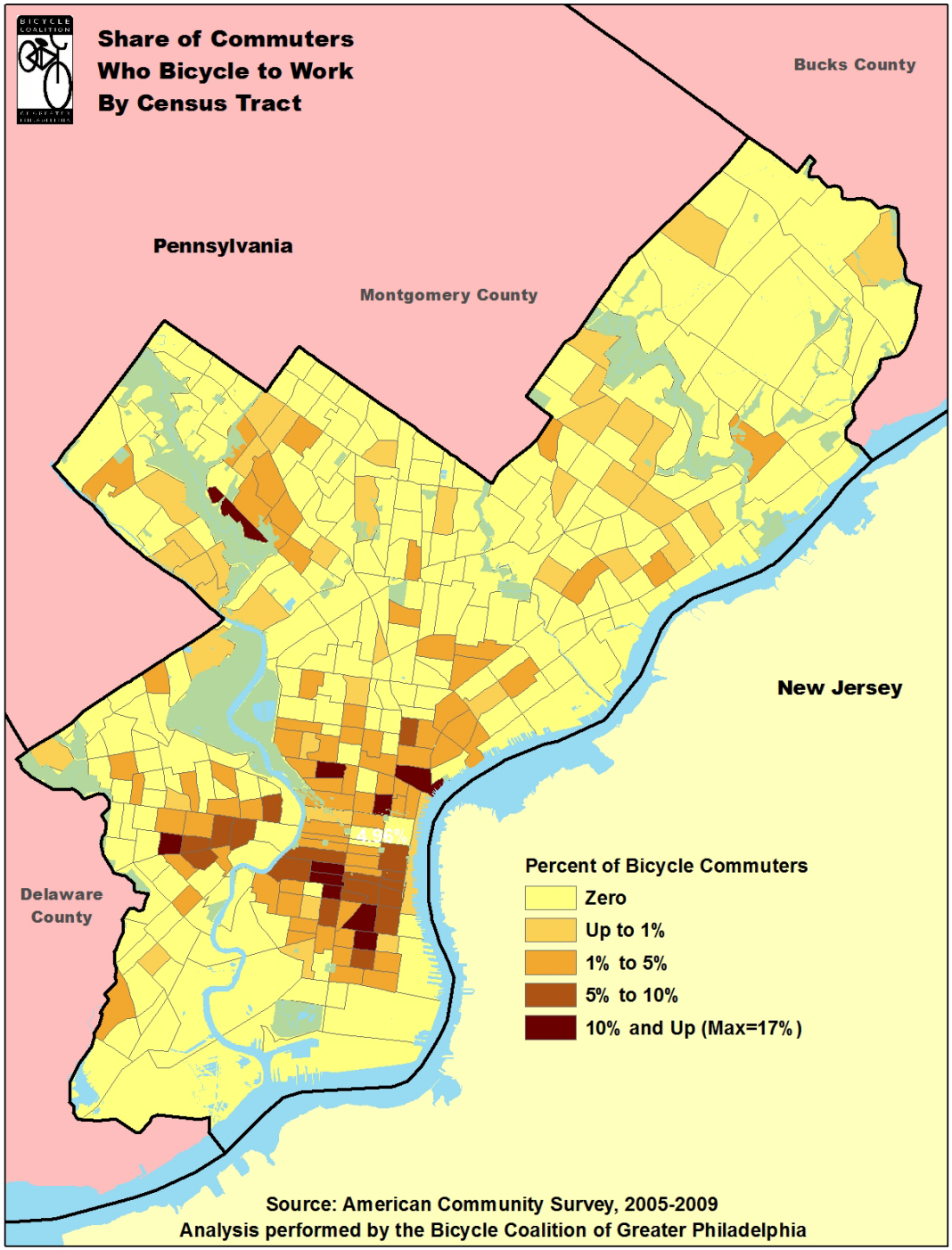
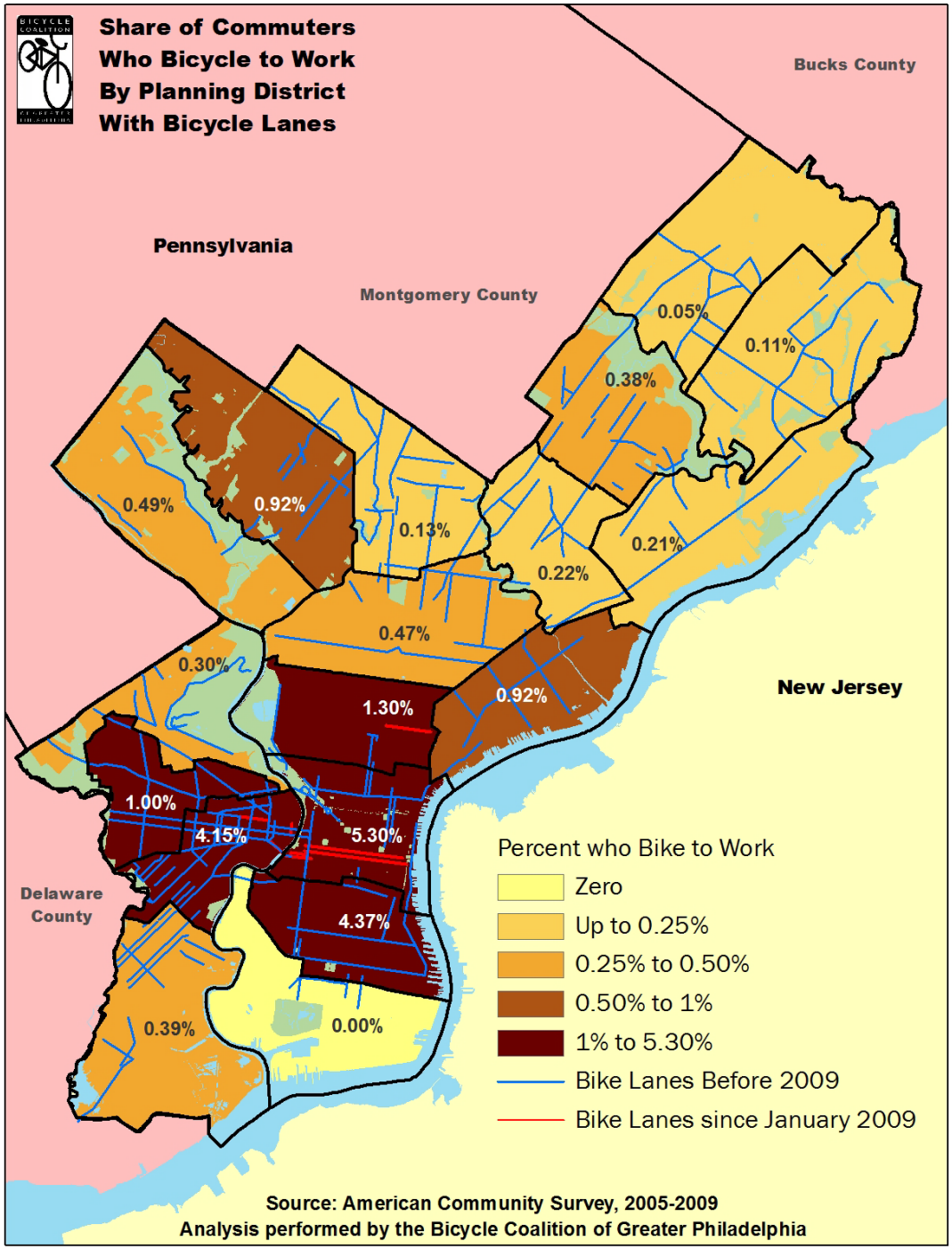
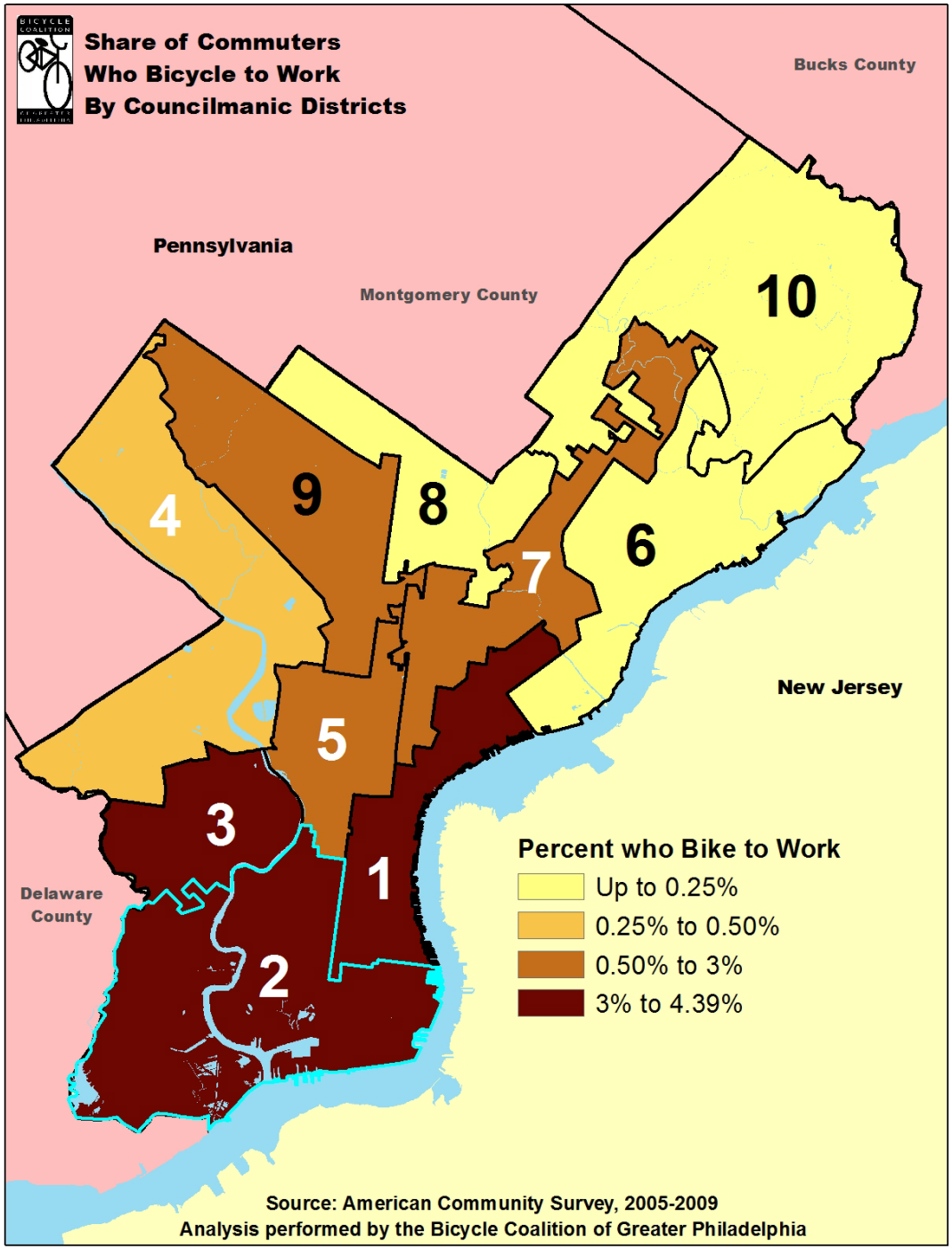
Philadelphia's Bicycle Mode Share increased 151% b/w 2000 and 2009




Share of Commuters
Who Bicycle to Work
By Census Tract
Bucks County
Pennsylvania
Montgomery County
New Jersey
Delaware
County
Percent of Bicycle Commuters
Zero
Up to 1%
1% to 5%
5% to 10%
10% and Up (Max=17%)
Source: American Community Survey, 2005-2009
Analysis performed by the Bicycle Coalition of Greater Philadelphia

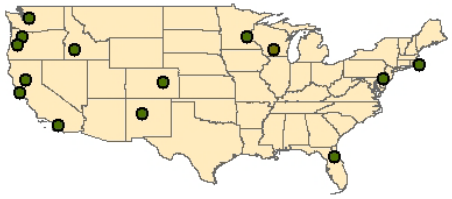

Share of Commuters
Who Bicycle to Work
By Planning District
With Bicycle Lanes
Bucks County
Pennsylvania
Montgomery County
0.05%
0.11%
0.38%
0.49%
0.92%
0.13%
0.21%
0.22%
0.47%
0.30%
1.30%
0.92%
New Jersey
1.00%
4.15%
5.30%
Delaware
County
4.37%
0.39%
0.00%
Percent who Bike to Work
Zero
Up to 0.25%
0.25% to 0.50%
0.50% to 1%
1% to 5.30%
Bike Lanes Before 2009
Bike Lanes since January 2009
Source: American Community Survey, 2005-2009
Analysis performed by the Bicycle Coalition of Greater Philadelphia

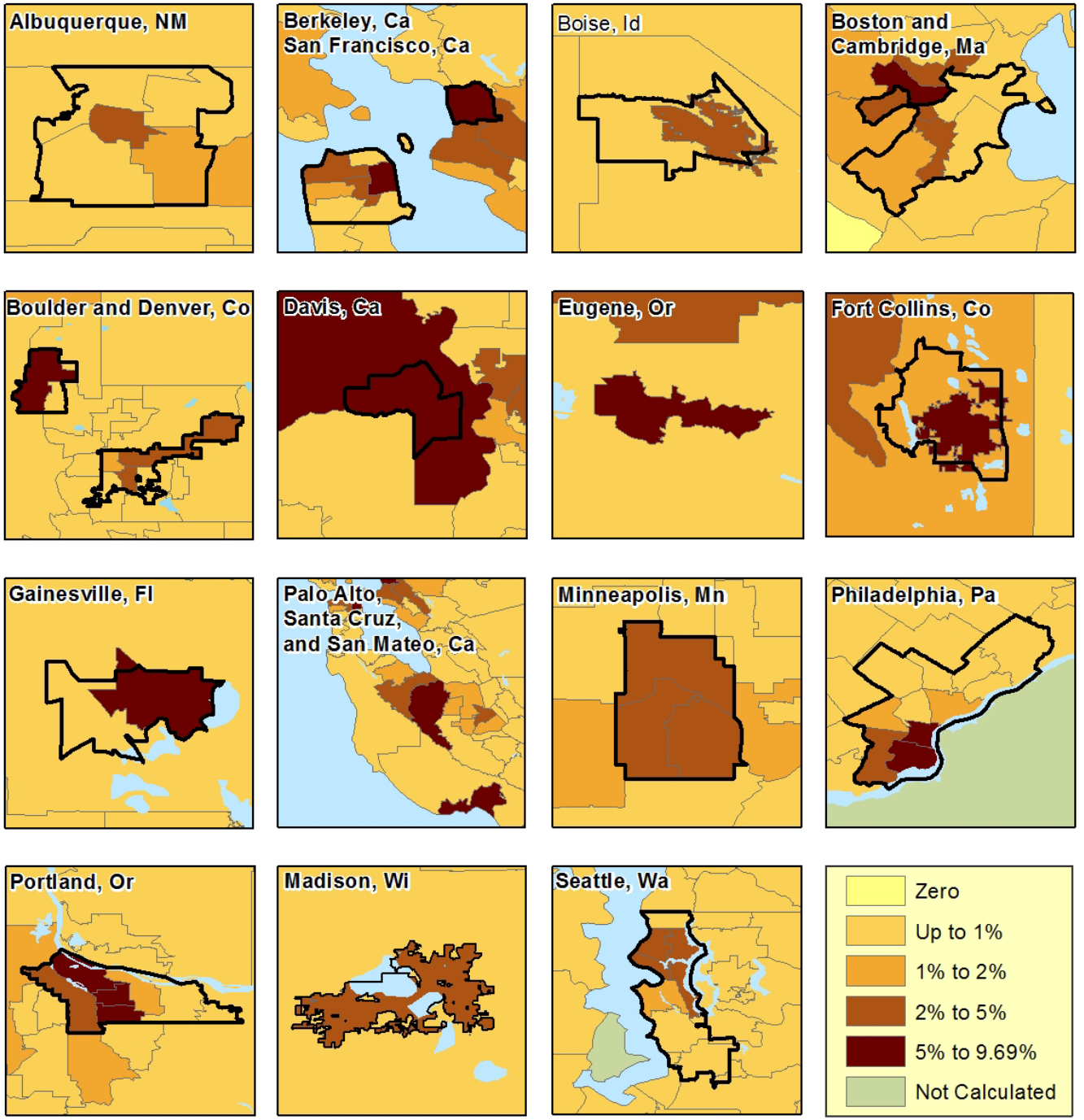

Share of Commuters
Who Bicycle to Work
By Councilmanic Districts
Bucks County
Pennsylvania
Montgomery County
10
9
8
4
7
6
5
New Jersey
3
1
Delaware
County
2
Percent who Bike to Work
Up to 0.25%
0.25% to 0.50%
0.50% to 3%
3% to 4.39%
Source: American Community Survey, 2005-2009
Analysis performed by the Bicycle Coalition of Greater Philadelphia

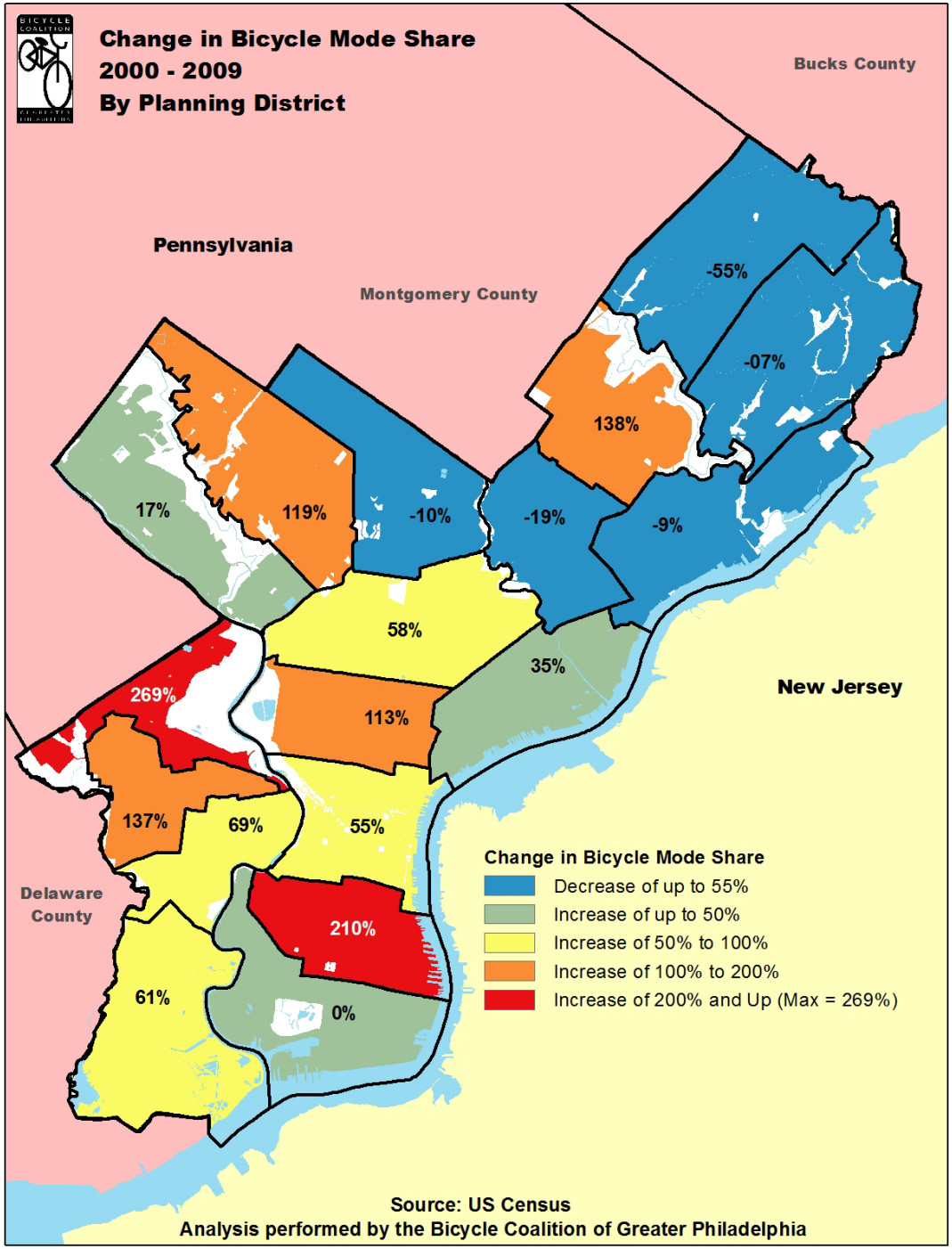
Top 25 Communities for Commuting by Bicycle

The 25 PUMA areas with the largest bike commuter share are found in or around the following locations:

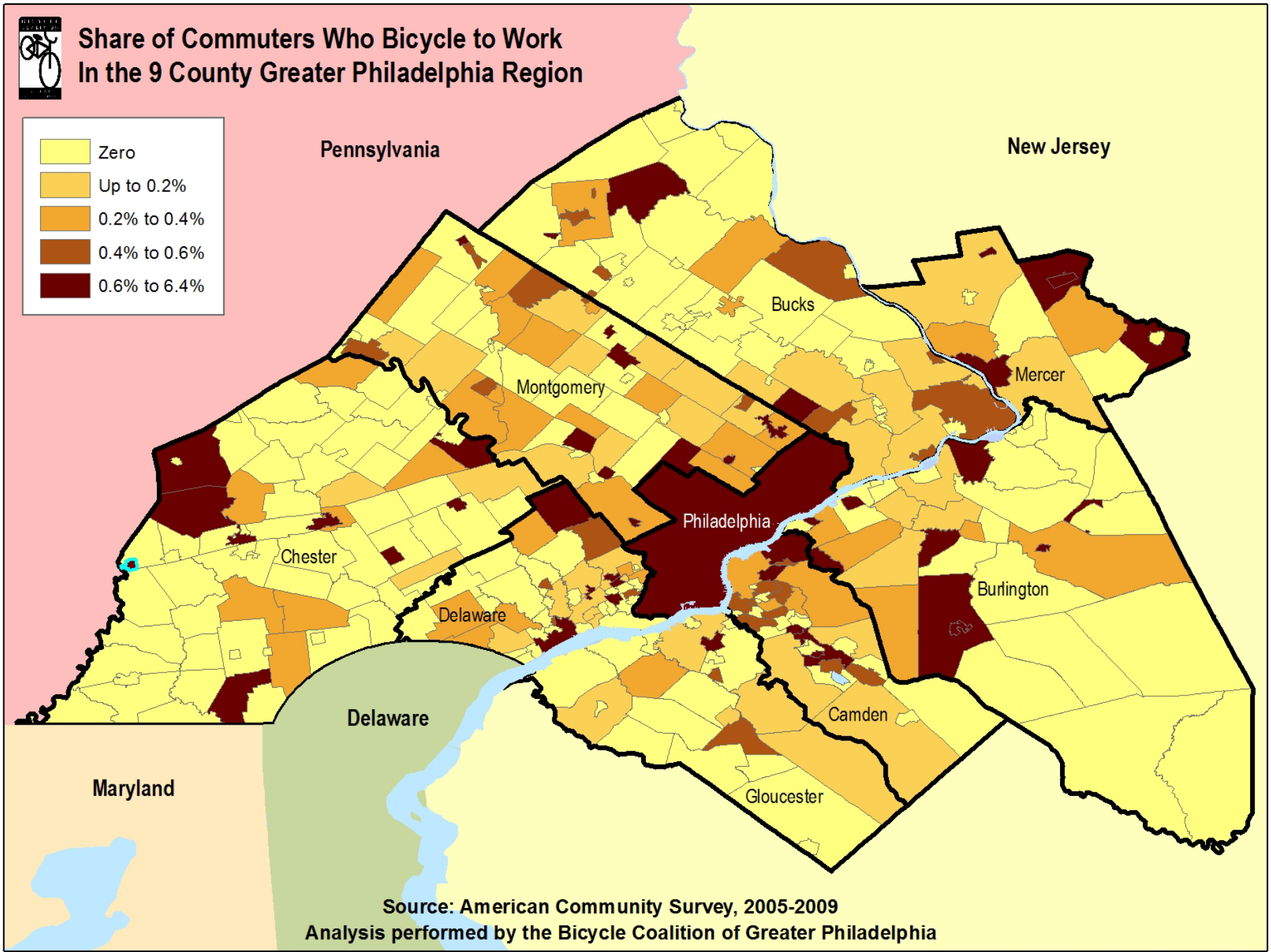
1. Boulder, Co (9.7%)
2. Portland, Or (9.2%)
3. Fort Collins, Co (8.0)
4. Davis-Woodland, Ca (7.4)
5. Berkeley, Ca (6.9%)
6. Cambridge, Ma (6.9)
7. Portland, Or (6.9%)
8. Portland, Or (6.9%)
9. Eugene-Springfield, Or (6.4%)
10. Palo Alto-Stanford, Ca (6.4%)
11. San Francisco, Ca (6.1)
12. Santa Barbara, Ca (6.1%)
13. Gainesville, Fl (6.1%)
14. Santa Cruz, Ca (5.8%)
15. Central Philadelphia, Pa (5.4%)
16. South Philadelphia, Pa (5.2%)
17. San Francisco, Ca (4.8%)
18. Madison, Wi (4.6%)
19. Boise, Id (4.4%)
20. San Mateo County, Ca (4.3%)
21. Minneapolis, Mn (4.2%)
22. Minneapolis, Mn (4.1%)
23. Minneapolis, Mn (4.1%)
24. Albuquerque, NM (4.1%)
25. Seattle, Wa (4.1%)



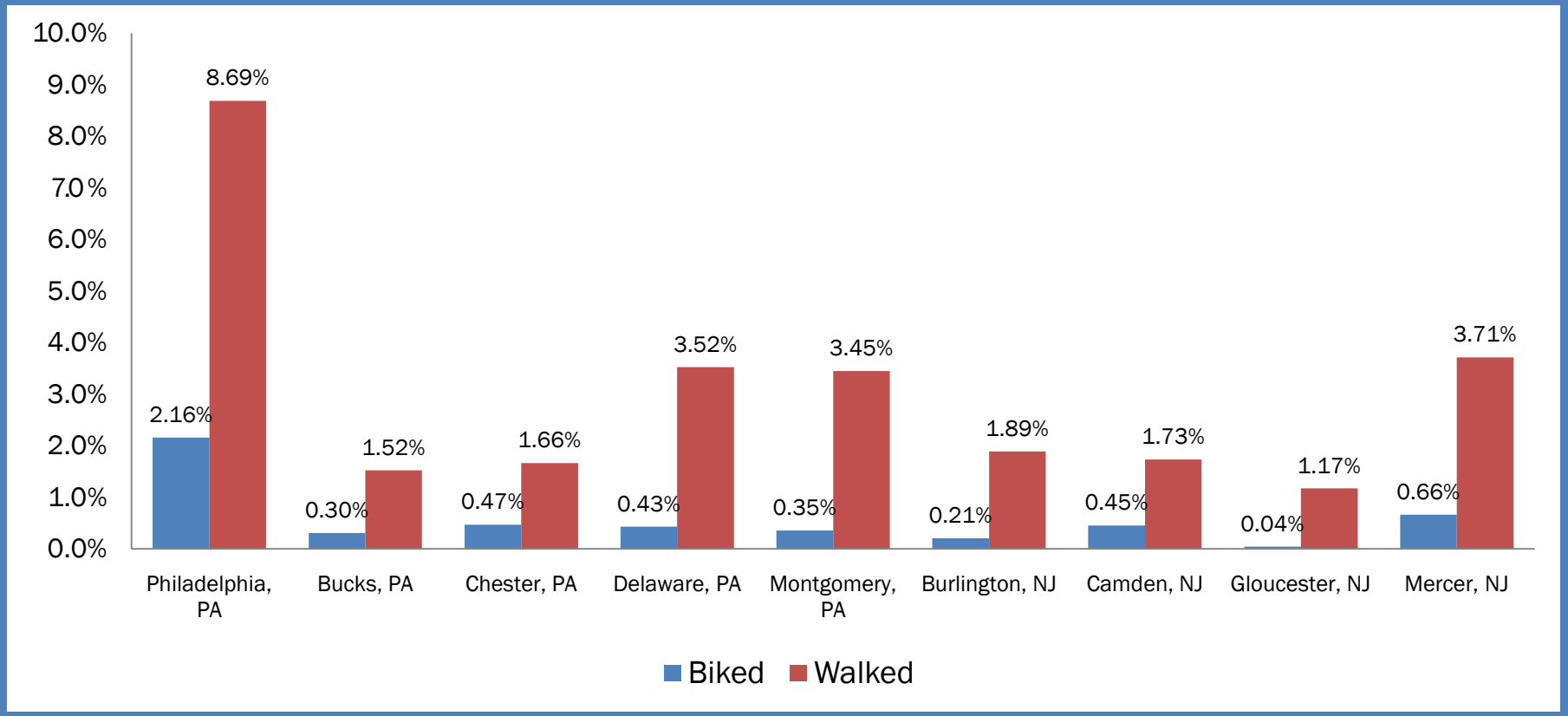



Change in Bicycle Mode Share
2000 - 2009
By Planning District
Bucks County
Pennsylvania
Montgomery County
-55%
-07%
138%
17%
119%
-10%
-19%
-9%
58%
35%
269%
113%
New Jersey
137%
69%
55%
Delaware County
210%
61%
0%
Change in Bicycle Mode Share
Decrease of up to 55%
Increase of up to 50%
Increase of 50% to 100%
Increase of 100% to 200%
Increase of 200% and Up (Max = 269%)
Source: US Census
Analysis performed by the Bicycle Coalition of Greater Philadelphia

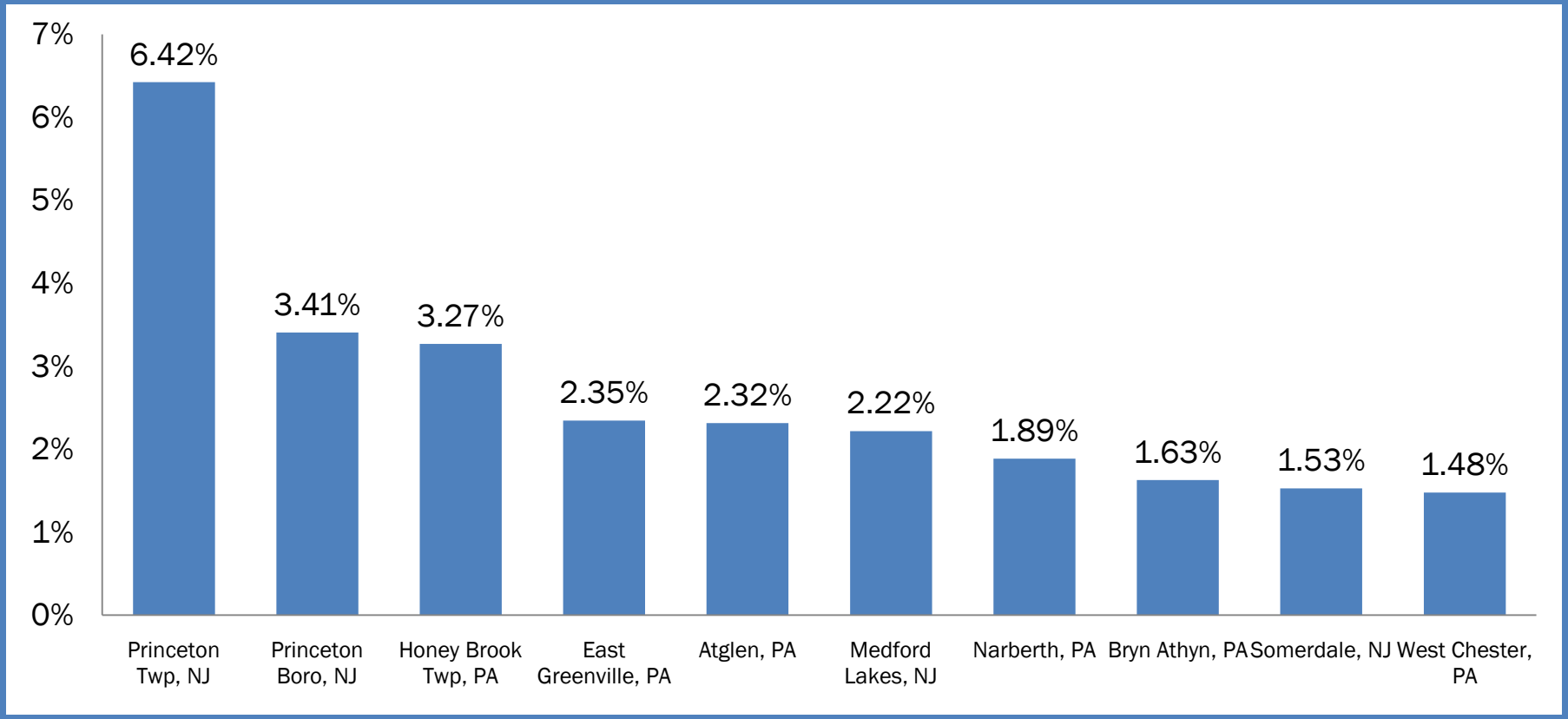
U.S. Census Data on Bicycle Mode Share for Philadelphia Suburbs


Share of Commuters Who Bicycle to Work
In the 9 County Greater Philadelphia Region
Zero
Up to 0.2%
0.2% to 0.4%
0.4% to 0.6%
0.6% to 6.4%
Pennsylvania
New Jersey
Bucks
Montgomery
Mercer
Philadelphia
Chester
Delaware
Burlington
Delaware
Camden
Maryland
Gloucester
Source: American Community Survey, 2005-2009
Analysis performed by the Bicycle Coalition of Greater Philadelphia

2009 Bike and Walk Mode Share For 9 Counties Greater Philadelphia



Percent of Bicycle Commuters
Top 10 Regional Municipalities



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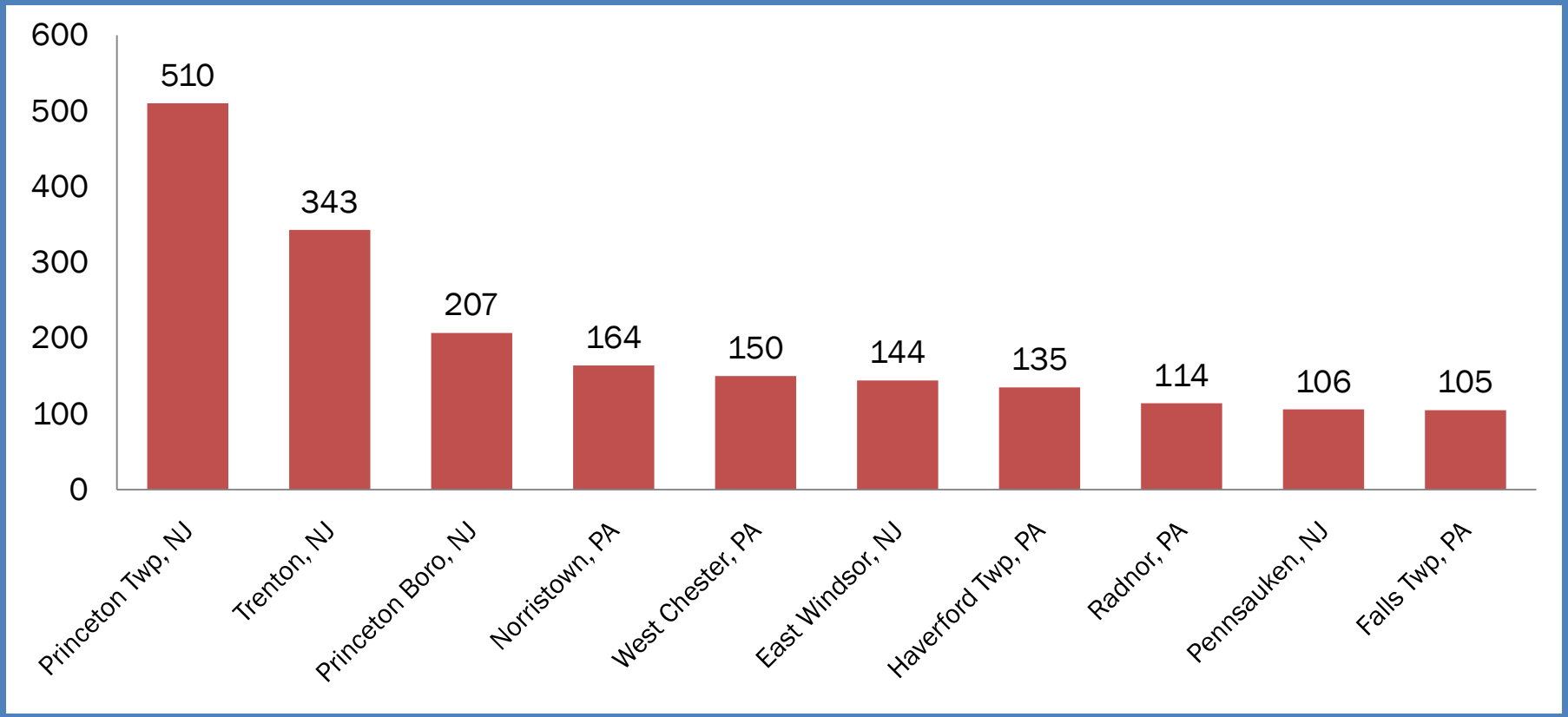
Total Number of Bicycle Commuters
Top 10 Regional Municipalities



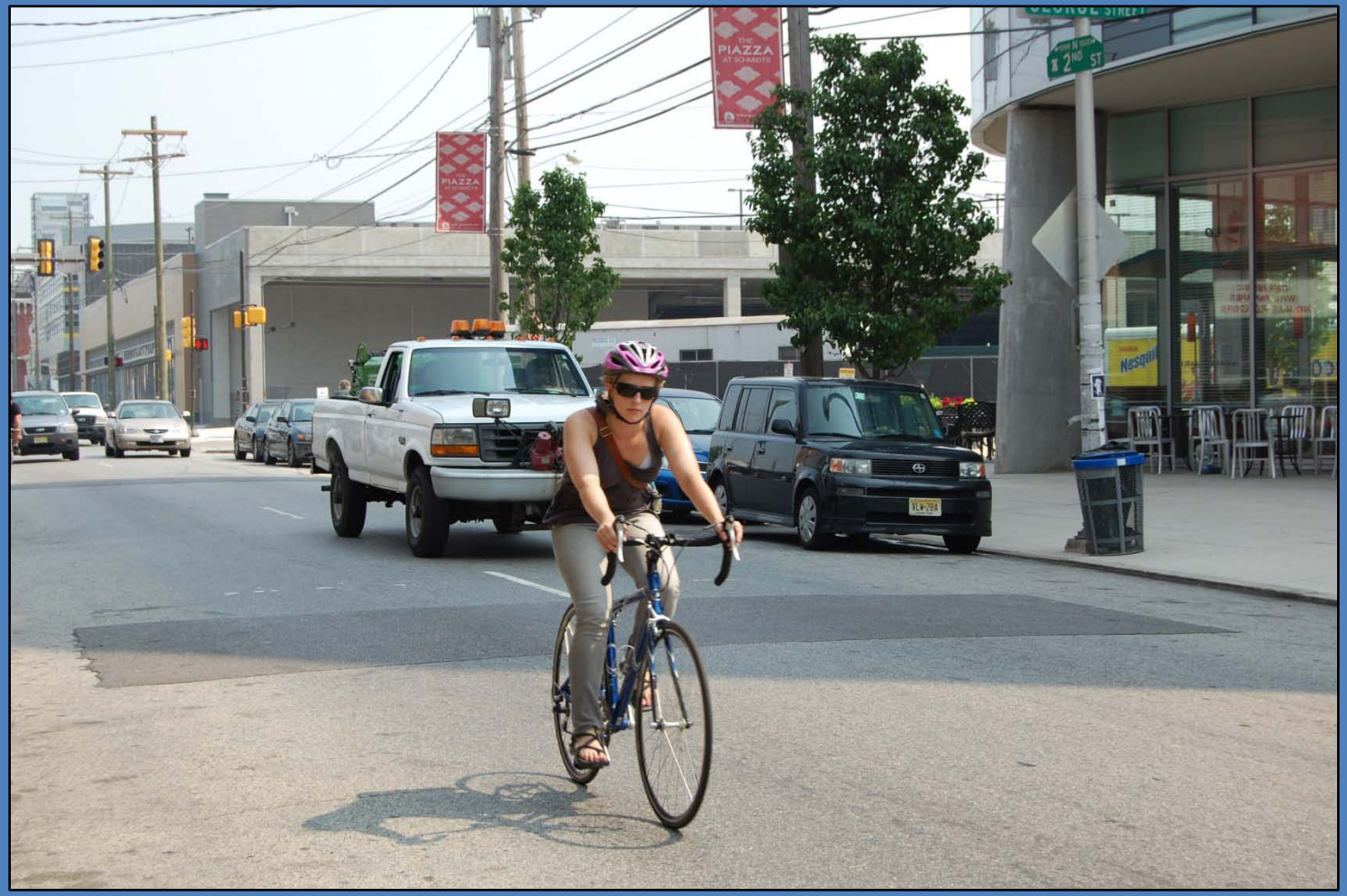
Policy Recommendations

Implement north-south buffered bike lanes in Center City.

BICYCLE COALITION OF GREATER PHILADELPHIA

Develop innovative infrastructure for South Philly.

BICYCLE COALITION OF GREATER PHILADELPHIA



Add more facilities to the neighborhoods where bicycling is growing.

BICYCLE COALITION OF GREATER PHILADELPHIA

Launch sophisticated education, encouragement and enforcement programs.

BICYCLE COALITION OF GREATER PHILADELPHIA

Increase staff capacity and resources in the Streets Dept and Mayor's Office of Transportation.

BICYCLE COALITION OF GREATER PHILADELPHIA

Increase funding for bicycling and walking for counties and municipalities.

BICYCLE COALITION OF GREATER PHILADELPHIA

Eliminate PennDOT red tape.

BICYCLE COALITION OF GREATER PHILADELPHIA

Resources for Designers

Philadelphia Pedestrian and Bicycle Plan

http://tooledesign.com/philadelphia

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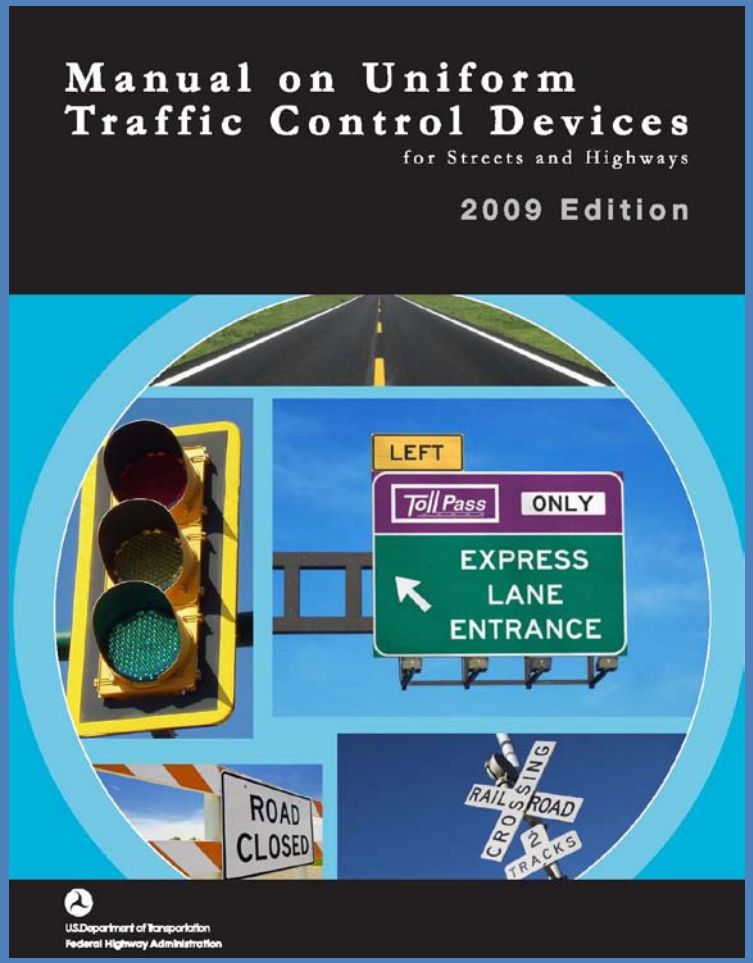
Manual on Uniform Traffic Control Devices



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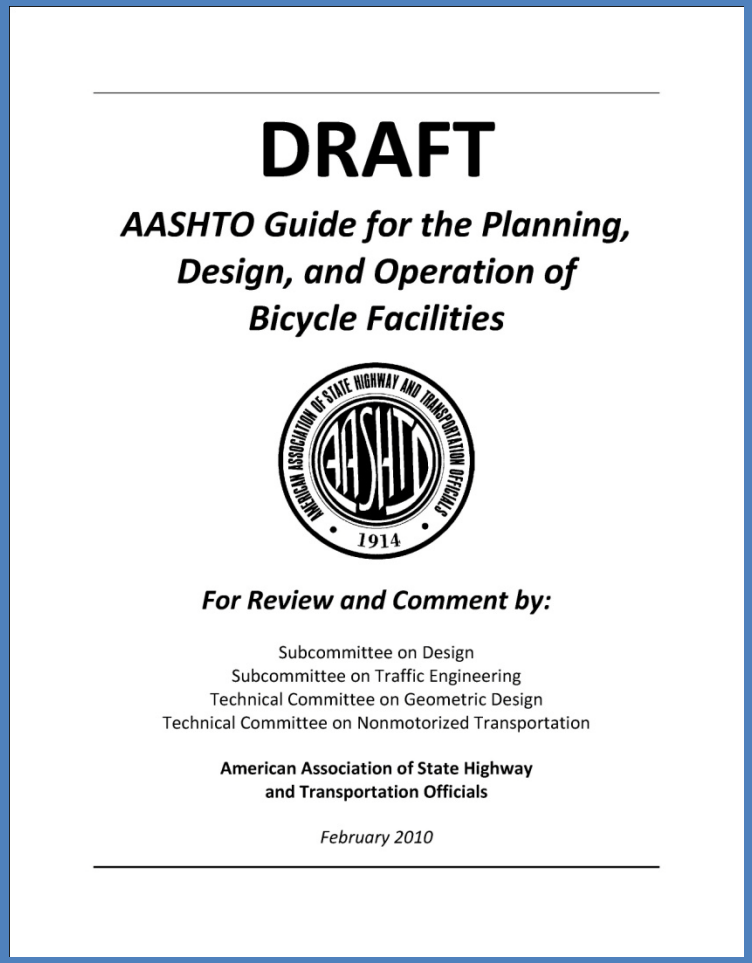
American Association of State Highway and Transportation Officials



DRAFT

AASHTO Guide for the Planning, Design, and Operation of Bicycle Facilities

For Review and Comment by:

Subcommittee on Design
Subcommittee on Traffic Engineering
Technical Committee on Geometric Design
Technical Committee on Nonmotorized Transportation

American Association of State Highway and Transportation Officials

February 2010

National Association of City Transportation Officials

BICYCLE COALITION OF GREATER PHILADELPHIA

Happy Cycling!

bicyclecoalition.org

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