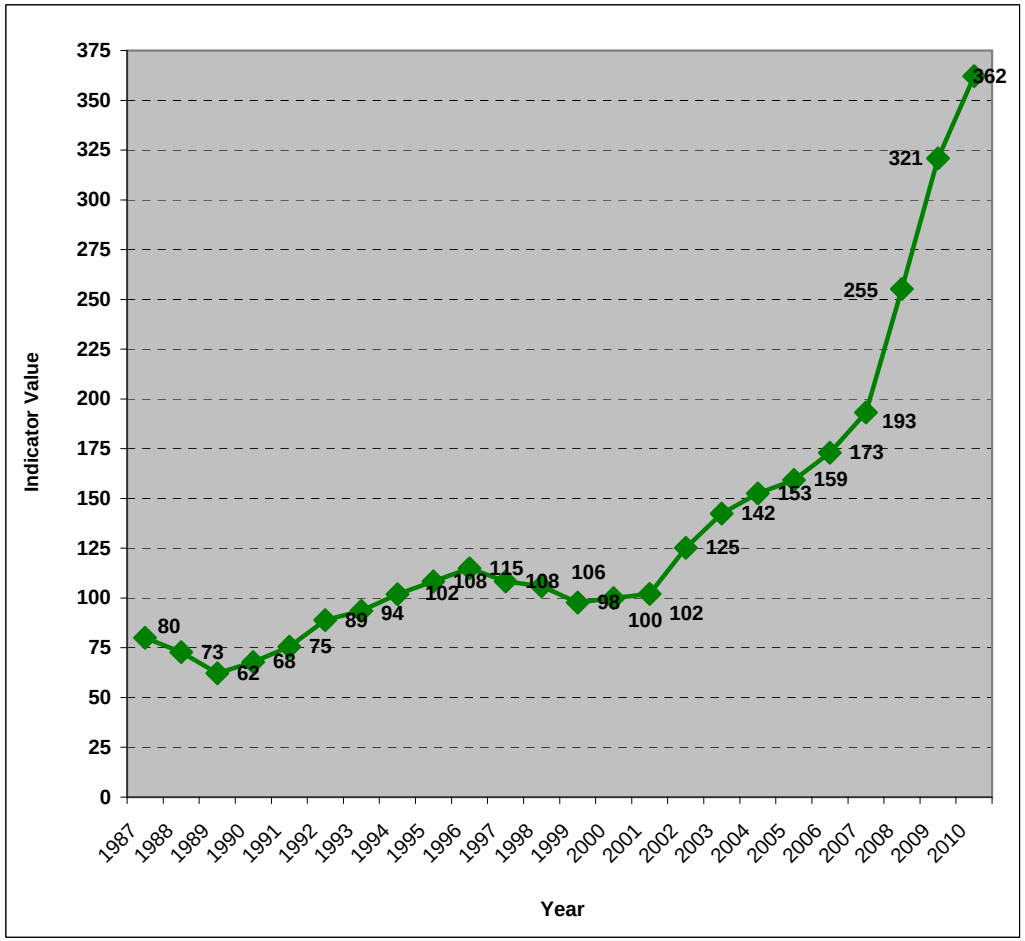
# NYC Commuter Cycling Indicator

**Based on Counts at Selected Commuter Locations**

*Indexed to Year 2000 = 100*

| Year | Value for Indicator | Index of Value for Indicator: 100 for Yr 2000 | Year to Year Growth (% Change) | Year to Year Growth (Cyclists Counted) |
|---|---|---|---|---|
| **1986** | 3,997 | 83 | n/a | n/a |
| **1987** | 3,867 | 80 | -3% | -130 |
| **1988** | 3,513 | 73 | -9% | -354 |
| **1989** | 3,005 | 62 | -14% | -508 |
| **1990** | 3,277 | 68 | 9% | 272 |
| **1991** | 3,645 | 75 | 11% | 368 |
| **1992** | 4,294 | 89 | 18% | 649 |
| **1993** | 4,518 | 94 | 5% | 224 |
| **1994** | 4,918 | 102 | 9% | 400 |
| **1995** | 5,229 | 108 | 6% | 311 |
| **1996** | 5,551 | 115 | 6% | 322 |
| **1997** | 5,229 | 108 | -6% | -322 |
| **1998** | 5,114 | 106 | -2% | -115 |
| **1999** | 4,716 | 98 | -8% | -398 |
| **2000** | 4,829 | 100 | 2% | 113 |
| **2001** | 4,927 | 102 | 2% | 98 |
| **2002** | 6,046 | 125 | 23% | 1,119 |
| **2003** | 6,879 | 142 | 14% | 834 |
| **2004** | 7,366 | 153 | 7% | 486 |
| **2005** | 7,693 | 159 | 4% | 327 |
| **2006** | 8,355 | 173 | 9% | 662 |
| **2007** | 9,327 | 193 | 12% | 971 |
| **2008** | 12,328 | 255 | 32% | 3,001 |
| **2009** | 15,495 | 321 | 26% | 3,167 |
| **2010** | 17,491 | 362 | 13% | 1,996 |




**Notes:**

1. Value for Indicator comes from weekday 12 hour (7am-7pm) counts at 6 key NYC locations
2. From 1985 until 2006, this count was taken only once per year. Due to volatility the "Value for Indicator" in this period is the average of the current year's count and the count of the prior and subsequent years
3. The value for 2007 is the average of 3 counts taken in 2007 (in May, August & September)
4. The value for 2008-2010 is the average of 10 counts taken between April and October

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# New York City Cyclist Counts At Selected Commuter Locations
## Weekday Counts, 7am to 7pm

| | Facility | | | | | | |
|---|---|---|---|---|---|---|---|
| **Count** | **Staten Island Ferry** | **Brooklyn Bridge** | **Manhattan Bridge** | **Williamsburg Bridge** | **Queensboro Bridge** | **Hudson River Greenway at 50th St.** | **Grand Total** |
| **1980** | 207 | 623 | N/A | 146 | 344 | 761 | 2,081 |
| **1985** | 231 | 913 | N/A | 392 | 759 | 1,145 | 3,440 |
| **1986** | 224 | 1,542 | N/A | 420 | 780 | 1,256 | 4,222 |
| **1987** | 327 | 1,633 | N/A | 368 | 436 | 1,565 | 4,329 |
| **1988** | 244 | 988 | N/A | 282 | 330 | 1,206 | 3,050 |
| **1989** | 202 | 690 | N/A | 240 | 423 | 1,606 | 3,161 |
| **1990** | 170 | 1,075 | N/A | 248 | 227 | 1,084 | 2,804 |
| **1991** | 341 | 1,183 | N/A | N/A | 602 | 1,741 | 3,867 |
| **1992** | 290 | 1,073 | N/A | 362 | 737 | 1,802 | 4,264 |
| **1993** | 293 | 1,193 | N/A | 361 | 709 | 2,196 | 4,752 |
| **1994** | 241 | 1,305 | N/A | 439 | 672 | 1,881 | 4,538 |
| **1995** | 386 | 1,715 | N/A | 664 | 964 | 1,736 | 5,465 |
| **1996** | 387 | 1,613 | N/A | 791 | 1,314 | 1,579 | 5,684 |
| **1997** | 318 | 1,698 | N/A | 1,022 | 786 | 1,679 | 5,503 |
| **1998** | 335 | 1,115 | N/A | 966 | 692 | 1,392 | 4,500 |
| **1999** | 366 | 1,109 | N/A | 1,004 | 820 | 2,039 | 5,338 |
| **2000** | 389 | 762 | N/A | 733 | 546 | 1,880 | 4,310 |
| **2001** | 253 | 867 | 147 | 792 | 667 | 2,113 | 4,839 |
| **2002** | 104 | 981 | 546 | 1,117 | 517 | 2,366 | 5,631 |
| **2003** | 354 | 1,049 | 661 | 1,387 | 1,331 | 2,885 | 7,667 |
| **2004** | 303 | 1,422 | 856 | 974 | 1,099 | 2,686 | 7,340 |
| **2005** | 290 | 1,349 | 829 | 1,609 | 976 | 2,037 | 7,090 |
| **2006** | 105 | 1,284 | 1,578 | 2,566 | 1,158 | 1,958 | 8,649 |
| **2007 (avg.)** | **252** | **1,626** | **1,313** | **2,257** | **1,292** | **2,586** | **9,327** |
| May | 341 | 1,574 | 1,280 | 1,644 | 1,100 | 2,404 | 8,343 |
| August | 266 | 1,689 | 1,522 | 2,284 | 1,244 | 2,392 | 9,397 |
| September | 149 | 1,616 | 1,137 | 2,842 | 1,533 | 2,963 | 10,240 |
| **2008 (avg.)** | **235** | **1,688** | **2,210** | **2,903** | **1,891** | **3,400** | **12,328** |
| April | 153 | 1,325 | 2,058 | 2,855 | 1,538 | 2,795 | 10,724 |
| May | 194 | 1,776 | 2,960 | 2,840 | 2,116 | 1,880 | 11,766 |
| May* | 188 | 1,728 | 2,609 | 2,743 | 2,001 | 2,384 | 11,653 |
| June | 132 | 1,638 | 2,557 | 2,931 | 1,704 | 3,276 | 12,238 |
| July | 212 | 1,594 | 1,955 | 2,884 | 2,194 | 3,666 | 12,505 |
| August | 318 | 1,642 | 2,073 | 3,021 | 2,116 | 4,185 | 13,355 |
| August* | 373 | 1,781 | 2,127 | 2,864 | 1,836 | 4,581 | 13,562 |
| September | 269 | 1,991 | 2,302 | 3,081 | 2,092 | 4,040 | 13,775 |
| September* | 312 | 1,892 | 1,960 | 3,397 | 1,377 | 3,597 | 12,535 |
| October | 203 | 1,512 | 1,497 | 2,416 | 1,940 | 3,599 | 11,167 |
| **2009 (avg.)** | **256** | **2,294** | **2,606** | **3,823** | **2,225** | **4,289** | **15,495** |
| April | 185 | 1,585 | 1,828 | 3,202 | 1,660 | 2,309 | 10,769 |
| May | 209 | 2,601 | 2,371 | 3,420 | 1,751 | 3,840 | 14,192 |
| May* | 143 | 1,845 | 2,385 | 3,423 | 1,676 | 3,287 | 12,759 |
| June | 161 | 2,504 | 2,245 | 3,802 | 2,396 | 4,426 | 15,534 |
| July | 339 | 2,943 | 2,624 | 4,200 | 2,963 | 4,329 | 17,398 |
| August* | 309 | 2,376 | 2,365 | 3,966 | 2,423 | 5,520 | 16,959 |
| August | 345 | 2,505 | 3,821 | 3,941 | 2,641 | 4,970 | 18,223 |
| September* | 332 | 2,172 | 2,683 | 4,330 | 2,556 | 5,440 | 17,513 |
| September | 272 | 1,930 | 2,778 | 4,038 | 2,016 | 4,419 | 15,453 |
| October | 268 | 2,479 | 2,962 | 3,911 | 2,172 | 4,354 | 16,146 |
| **2010 (avg.)** | **378** | **2,153** | **2,984** | **4,296** | **2,626** | **5,055** | **17,491** |
| April | 356 | 2,062 | 2,404 | 3,909 | 2,235 | 4,452 | 15,418 |
| May | 403 | 2,466 | 3,453 | 4,076 | 2,574 | 6,190 | 19,162 |
| May* | 354 | 2,212 | 2,929 | 3,934 | 2,173 | 3,985 | 15,587 |
| June | 237 | 1,376 | 2,407 | 3,845 | 2,590 | 5,230 | 15,685 |
| July | 427 | 2,104 | 2,646 | 3,891 | 2,020 | 4,213 | 15,301 |
| August* | 284 | 2,528 | 2,771 | 5,110 | 3,070 | 6,372 | 20,135 |
| August | 492 | 2,306 | 2,990 | 4,866 | 3,035 | 5,055 | 18,744 |
| September | 403 | 1,938 | 3,402 | 4,408 | 3,355 | 5,125 | 18,631 |
| September* | 399 | 2,683 | 3,366 | 4,693 | 2,619 | 5,629 | 19,389 |
| October | 427 | 1,853 | 3,467 | 4,226 | 2,586 | 4,294 | 16,853 |

**Notes:**

1. Count is on a single mid-summer weekday from 7AM to 7PM from 1980, and 1985-2006
2. There is no data available for 12th Avenue in 1986 and the Williamsburg Bridge in 1991
3. The Hudson River Greenway and Manhatan Bridge path opened to cycling in 2001
4. For years prior to availability of the Hudson River Greenway, data for 9th, 10th, 11th and 12th avenues are shown as a proxy.

* Count is from the DOT Screenline Count which is done three times per year

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# New York City Cyclist Counts by Year

Weekday Counts, 7am to 7pm, At Selected Commuter Locations

| | Facility | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Year** | **Staten Island Ferry** | **Brooklyn Bridge** | **Manhattan Bridge** | **Williamsburg Bridge** | **Queensboro Bridge** | **Hudson River Greenway at 50th St.** | **9th, 10th, 11th, 12th Avenues at 50th St.** | **Grand Total** |
| **1980** | 207 | 623 | N/A. See Note | 146 | 344 | N/A. See Note | 761 | **2,081** |
| **1981-1984** | N/A | N/A | | N/A | N/A | | N/A | **N/A** |
| **1985** | 231 | 913 | | 392 | 759 | | 1,145 | **3,440** |
| **1986** | 224 | 1,542 | | 420 | 780 | | 1,256 | **4,222** |
| **1987** | 327 | 1,633 | | 368 | 436 | | 1,565 | **4,329** |
| **1988** | 244 | 988 | | 282 | 330 | | 1,206 | **3,050** |
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| **1992** | 290 | 1,073 | | 362 | 737 | | 1,802 | **4,264** |
| **1993** | 293 | 1,193 | | 361 | 709 | | 2,196 | **4,752** |
| **1994** | 241 | 1,305 | | 439 | 672 | | 1,881 | **4,538** |
| **1995** | 386 | 1,715 | | 664 | 964 | | 1,736 | **5,465** |
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| **1997** | 318 | 1,698 | | 1,022 | 786 | | 1,679 | **5,503** |
| **1998** | 335 | 1,115 | | 966 | 692 | | 1,392 | **4,500** |
| **1999** | 366 | 1,109 | | 1,004 | 820 | | 2,039 | **5,338** |
| **2000** | 389 | 762 | | 733 | 546 | | 1,880 | **4,310** |
| **2001** | 253 | 867 | 147 | 792 | 667 | 2,113 | Removed From Indicator. See Notes. | **4,839** |
| **2002** | 104 | 981 | 546 | 1,117 | 517 | 2,366 | | **5,631** |
| **2003** | 354 | 1,049 | 661 | 1,387 | 1,331 | 2,885 | | **7,667** |
| **2004** | 303 | 1,422 | 856 | 974 | 1,099 | 2,686 | | **7,340** |
| **2005** | 290 | 1,349 | 829 | 1,609 | 976 | 2,037 | | **7,090** |
| **2006** | 105 | 1,284 | 1,578 | 2,566 | 1,158 | 1,958 | | **8,649** |
| **2007** | 252 | 1,626 | 1,313 | 2,257 | 1,292 | 2,586 | | **9,327** |
| **2008** | 235 | 1,688 | 2,210 | 2,903 | 1,891 | 3,400 | | **12,328** |
| **2009** | 256 | 2,294 | 2,606 | 3,823 | 2,225 | 4,289 | | **15,495** |
| **2010** | 378 | 2,153 | 2,984 | 4,296 | 2,626 | 5,055 | | **17,491** |

**Notes:**

1. Count is on a single mid-summer weekday from 7AM to 7PM from 1980, and 1985-2006
2. There is no data available for 12th Avenue in 1986 and the Williamsburg Bridge in 1991
3. The value for 2007 is the average of 3 counts taken in 2007 (in May, August & September)
4. The value for 2008-2010 is the average of 10 counts taken between April and October
5. The Hudson River Greenway and Manhatan Bridge path opened to cycling in 2001
6. For years prior to availability of the Hudson River Greenway, data for 9th, 10th, 11th and 12th avenues are shown as a proxy

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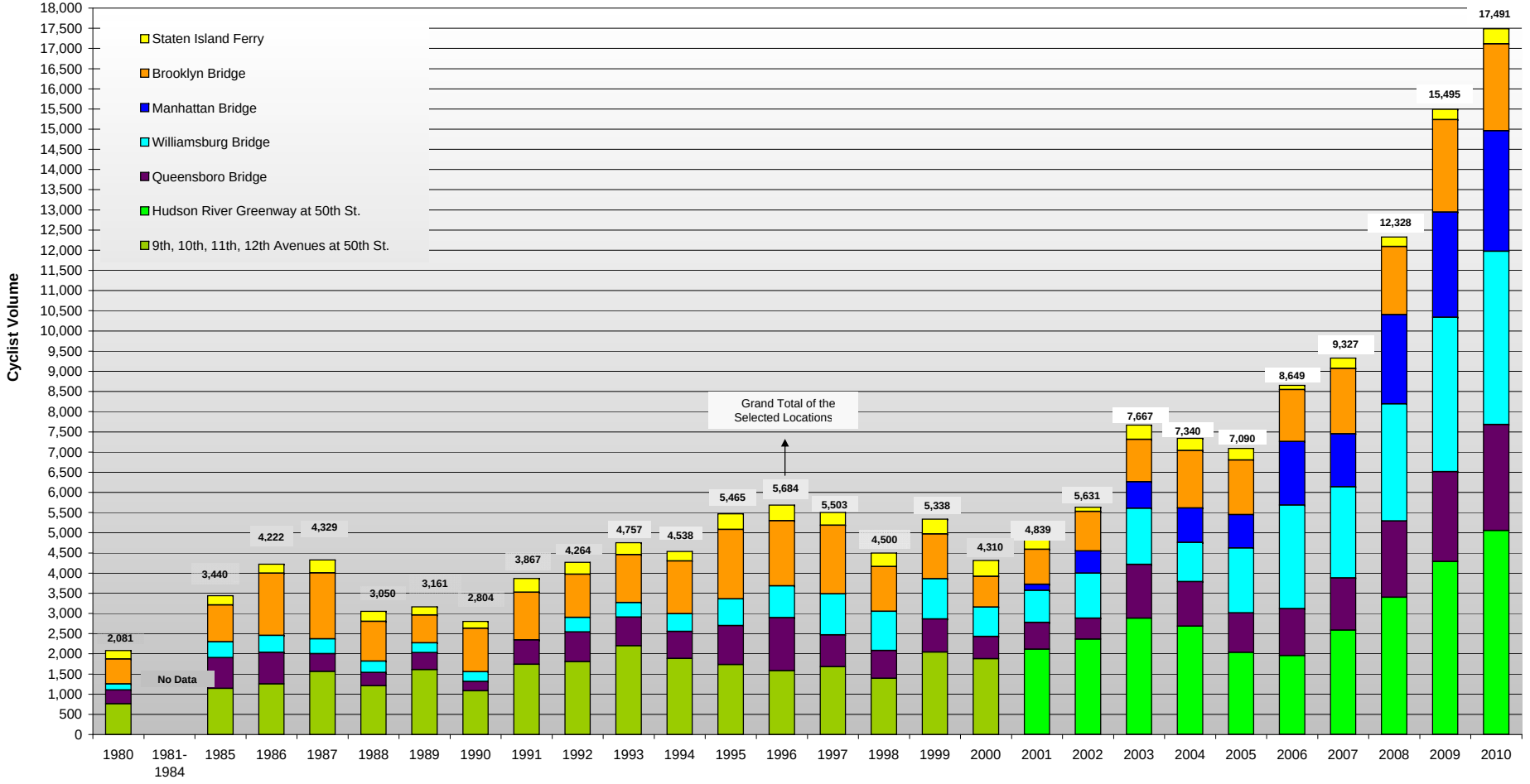
# New York City Cyclist Counts at Selected Commuter Locations

## Weekday, 7AM to 7PM, 1980-2010




**Notes:**

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2. There is no data available for 12th Avenue in 1986 and the Williamsburg Bridge in 1991
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4. The value for 2008-2010 is the average of 10 counts taken between April and October
5. The Hudson River Greenway and Manhatan Bridge path opened to cycling in 2001
6. For years prior to availability of the Hudson River Greenway, data for 9th, 10th, 11th and 12th avenues are shown as a proxy
7. 9th through 12th Avenues is removed from the count from 2001 forward when the Hudson River Greenway enters the count

# 2010 NYC Commuter Cycling Indicator

## *An Estimate of Trends in Regular Cycling for Transportation*

Estimating trends in regular bicycle use in NYC is difficult as there are few robust sources of data. For example, the census only asks about cycling use for the trip to work and is conducted only once per decade. DOT has developed an indicator that makes use of the most robust data available to estimate levels of commuter[1] cycling over time.

Since 1985, DOT has been conducting an annual 12 hour count of cyclists entering and existing the center of Manhattan. Known as the NYC Bicycle Screenline Count, it includes counts of cyclists crossing the four East River bridges, entering and exiting the Staten Island Ferry at the Whitehall Terminal and each avenue and the Hudson River Greenway at 50th Street. It is the most robust, long-term count in NYC and is the basis of the NYC Commuter Cycling Indicator, however it was conducted only once per year.

In 2007, DOT began conducting the screenline three times per year. Beginning in 2008, DOT augmented the three screenline counts with 7 monthly counts from April to October, for a total of 10 counts per year.

The historic screenline data is adapted and blended with more robust current counts to become an indicator through four primary steps:

### 1. Removing Irregular, Primarily Non-Commuter Data

An analysis of the avenue data from the screenline count at 50th Street showed that cyclist volumes fluctuated significantly from year to year and that the daily peaks were in the middle of the day. This and the fact that 50th Street is in the heart of the midtown central business district indicates that much of the cyclist volume crossing 50th Street is made up of working cyclists (messengers and food delivery), the volume of which is dependent on certain kinds of economic activity and are not commutation trips. Therefore, the NYC Commuter Cycling Indicator excludes the avenue counts and uses solely the counts of the four East River Bridges, Hudson River Greenway and cyclists entering and exiting the Staten Island Ferry at Whitehall Terminal. The bicycle counts on the bridges, ferry and on the Hudson River Greenway show less variability and because they are limited access facilities; they indicate that a cyclist is taking a long trip rather than the typically short trip of a working cyclists.

### 2. Creating a Historical Proxy for the Hudson River Greenway

Since the first count was taken in 1980, the Hudson River Greenway and the Manhattan Bridge bicycle path were added to the inventory of cycling facilities. The Manhattan Bridge serves a similar market of cycling as the nearby Brooklyn Bridge. For many cyclists, the Hudson River Greenway provides an alternative to nearby avenues. Therefore, to keep the indicator as a conservative estimate of commuter cyclist volumes over time, counts for Ninth, Tenth, Eleventh and Twelfth Avenues are included in the

(1) While many consider commuting as referring to the journey to and from work, our usage here is in concert with the Webster's definition of commute: "to travel regularly, between points at some distance"

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indicator up to the year 2000. In 2001, when an interim version of the Hudson River Greenway opened, these avenues are dropped from the indicator.

The results of step one and two are the raw data that compose the indicator and are attached in chart and table form.

### 3. Adjust for Annual Volatility of Counts

One drawback of the screenline count has been that it is conducted on a single day during the summer and thus may not be a robust indicator of a given year's cyclist volume. Beginning in 2007, the count is conducted three times per year (spring, summer, fall) and since 2008 there are now 10 counts per year. To account for the volatility prior to 2007, the indicator is based on an average of the given year's count and the counts of the preceding and subsequent years.

### 4. Index Count to Base 100 for Year 2000

Since the count is not a count of all cyclists in New York City, it is important that it be clear that the indicator is the best estimate of trends in cycling levels in the City over time. Thus, rather than presenting the number of cyclists counted, an index is created using the year 2000 as a baseline. All values for each year have been divided by the value for the year 2000 and multiplied by 100. Indexing the year 2000 to 100 allows for simple comparisons between values.

### Indicator Results

Despite the conservative removal of the westerly avenues from the indicator in 2001, the indicator shows a clear and accelerated growth in regular cycling in New York City. It is estimated that commuter cycling is 3.6 times greater in 2010 than in 2000. The table below illustrates the acceleration in regular cycling.

**NYC Commuter Cycling Indicator for Selected Years**

| Year | Indicator |
|---|---|
| 1986 | 83 |
| | |
| 1990 | 68 |
| 1995 | 108 |
| 2000 | 100 |
| 2005 | 159 |
| | |
| 2006 | 173 |
| 2007 | 193 |
| 2008 | 255 |
| 2009 | 321 |
| 2010 | 362 |