

# SPD Values Same Movements

March 26, 2017

```
In [1]: import pandas as pd

In [2]: import numpy as np

In [3]: df = pd.read_excel('../change_values_am_peak.xlsx', 'Sheet1')

In [4]: stations = df["Station"].unique()

In [5]: stations

Out[5]: array(['Addison Road', 'Anacostia', 'Archives-Navy Memorial',
               'Arlington Cemetery', 'Ballston', 'Benning Road', 'Bethesda',
               'Braddock Road', 'Branch Avenue', 'Brookland', 'Capitol Heights',
               'Capitol South', 'Cheverly', 'Clarendon', 'Cleveland Park',
               'College Park-U of MD', 'Columbia Heights', 'Congress Heights',
               'Court House', 'Crystal City', 'Deanwood', 'Dunn Loring',
               'Dupont Circle', 'East Falls Church', 'Eastern Market',
               'Eisenhower Avenue', 'Farragut North', 'Farragut West',
               'Federal Center SW', 'Federal Triangle', 'Foggy Bottom',
               'Forest Glen', 'Fort Totten', 'Franconia-Springfield',
               'Friendship Heights', 'Gallery Place-Chinatown',
               'Georgia Avenue-Petworth', 'Glenmont', 'Greenbelt', 'Greensboro',
               'Grosvenor', 'Huntington', 'Judiciary Square', 'King Street',
               'L'Enfant Plaza', 'Landover', 'Largo Town Center', 'McLean',
               'McPherson Square', 'Medical Center', 'Metro Center',
               'Minnesota Avenue', 'Morgan Blvd.', 'Mt. Vernon Square-UDC',
               'Navy Yard', 'Naylor Road', 'New Carrollton', 'New York Ave',
               'Pentagon', 'Pentagon City', 'Potomac Avenue',
               'Prince George's Plaza', 'Reagan Washington National Airport',
               'Rhode Island Avenue', 'Rockville', 'Rosslyn', 'Shady Grove',
               'Shaw-Howard University', 'Silver Spring', 'Smithsonian',
               'Southern Avenue', 'Spring Hill', 'Stadium-Armory', 'Suitland',
               'Takoma', 'Tenleytown-AU', 'Twinbrook', 'Tysons Corner',
               'U Street-Cardozo', 'Union Station', 'Van Dorn Street',
               'Van Ness-UDC', 'Vienna', 'Virginia Square-GMU', 'Waterfront',
               'West Falls Church', 'West Hyattsville', 'Wheaton', 'White Flint',
               'Wiehle', 'Woodley Park-Zoo'], dtype=object)

In [6]: values = np.zeros([stations.size, stations.size])
```

```
In [7]: di_matrix = pd.DataFrame(data=values,index=stations,columns=stations,dtype='int64')
```

```
In [8]: year_wise = df.groupby("Year")
```

```
In [9]: y11 = year_wise.get_group(2011)[['Station','% Change','Label']]
```

```
In [10]: y11
```

```
Out[10]:
```

|     | Station                            | % Change  | Label |
|-----|------------------------------------|-----------|-------|
| 1   | Addison Road                       | 0.004764  | flat  |
| 6   | Anacostia                          | 0.004003  | flat  |
| 11  | Archives-Navy Memorial             | 0.089361  | up    |
| 16  | Arlington Cemetery                 | 0.203907  | up    |
| 21  | Ballston                           | 0.029631  | flat  |
| 26  | Benning Road                       | -0.014731 | flat  |
| 31  | Bethesda                           | 0.042967  | flat  |
| 36  | Braddock Road                      | 0.059380  | up    |
| 41  | Branch Avenue                      | 0.020722  | flat  |
| 46  | Brookland                          | 0.069080  | up    |
| 51  | Capitol Heights                    | 0.010324  | flat  |
| 56  | Capitol South                      | 0.002711  | flat  |
| 61  | Cheverly                           | 0.021036  | flat  |
| 66  | Clarendon                          | 0.081867  | up    |
| 71  | Cleveland Park                     | 0.070813  | up    |
| 76  | College Park-U of MD               | 0.060062  | up    |
| 81  | Columbia Heights                   | 0.039073  | flat  |
| 86  | Congress Heights                   | 0.027426  | flat  |
| 91  | Court House                        | 0.014372  | flat  |
| 96  | Crystal City                       | 0.070686  | up    |
| 101 | Deanwood                           | 0.010701  | flat  |
| 106 | Dunn Loring                        | 0.013392  | flat  |
| 111 | Dupont Circle                      | 0.072637  | up    |
| 116 | East Falls Church                  | 0.089294  | up    |
| 121 | Eastern Market                     | 0.022095  | flat  |
| 126 | Eisenhower Avenue                  | 0.112631  | up    |
| 131 | Farragut North                     | 0.088720  | up    |
| 136 | Farragut West                      | 0.118702  | up    |
| 141 | Federal Center SW                  | 0.048325  | flat  |
| 146 | Federal Triangle                   | 0.044362  | flat  |
| ..  | ...                                | ...       | ...   |
| 284 | Pentagon                           | -0.010129 | flat  |
| 289 | Pentagon City                      | 0.035508  | flat  |
| 294 | Potomac Avenue                     | -0.005397 | flat  |
| 299 | Prince George's Plaza              | 0.040480  | flat  |
| 304 | Reagan Washington National Airport | -0.006482 | flat  |
| 309 | Rhode Island Avenue                | 0.031507  | flat  |
| 314 | Rockville                          | 0.027259  | flat  |
| 319 | Rosslyn                            | 0.103583  | up    |
| 324 | Shady Grove                        | 0.025604  | flat  |

|     |                        |           |      |
|-----|------------------------|-----------|------|
| 329 | Shaw-Howard University | 0.096757  | up   |
| 334 | Silver Spring          | 0.039978  | flat |
| 339 | Smithsonian            | 0.118688  | up   |
| 344 | Southern Avenue        | -0.001239 | flat |
| 351 | Stadium-Armory         | -0.006738 | flat |
| 356 | Suitland               | -0.029566 | flat |
| 361 | Takoma                 | 0.048215  | flat |
| 366 | Tenleytown-AU          | 0.082033  | up   |
| 371 | Twinbrook              | 0.024697  | flat |
| 378 | U Street-Cardozo       | 0.036895  | flat |
| 383 | Union Station          | 0.053896  | up   |
| 388 | Van Dorn Street        | 0.028017  | flat |
| 393 | Van Ness-UDC           | 0.136002  | up   |
| 398 | Vienna                 | 0.033166  | flat |
| 403 | Virginia Square-GMU    | 0.028728  | flat |
| 408 | Waterfront             | 0.062339  | up   |
| 413 | West Falls Church      | 0.041903  | flat |
| 418 | West Hyattsville       | 0.034896  | flat |
| 423 | Wheaton                | 0.035143  | flat |
| 428 | White Flint            | 0.048867  | flat |
| 435 | Woodley Park-Zoo       | 0.052774  | up   |

[86 rows x 3 columns]

In [11]: labels = y11.groupby("Label")

In [12]: labels.groups

Out[12]: {'flat': Int64Index([ 1, 6, 21, 26, 31, 41, 51, 56, 61, 81, 86, 91, 101, 106, 121, 141, 146, 156, 161, 166, 171, 186, 191, 202, 222, 227, 239, 249, 264, 269, 274, 284, 289, 294, 299, 304, 309, 314, 324, 334, 344, 351, 356, 361, 371, 378, 388, 398, 403, 413, 418, 423, 428], dtype='int64'),  
'up': Int64Index([ 11, 16, 36, 46, 66, 71, 76, 96, 111, 116, 126, 131, 136, 151, 176, 181, 197, 207, 212, 217, 234, 244, 254, 259, 279, 319, 329, 339, 366, 383, 393, 408, 435], dtype='int64')}

In [13]: flat = labels.get\_group('flat')

In [14]: flat

Out[14]:

|    | Station      | % Change  | Label |
|----|--------------|-----------|-------|
| 1  | Addison Road | 0.004764  | flat  |
| 6  | Anacostia    | 0.004003  | flat  |
| 21 | Ballston     | 0.029631  | flat  |
| 26 | Benning Road | -0.014731 | flat  |
| 31 | Bethesda     | 0.042967  | flat  |

|     |                                    |           |      |
|-----|------------------------------------|-----------|------|
| 41  | Branch Avenue                      | 0.020722  | flat |
| 51  | Capitol Heights                    | 0.010324  | flat |
| 56  | Capitol South                      | 0.002711  | flat |
| 61  | Cheverly                           | 0.021036  | flat |
| 81  | Columbia Heights                   | 0.039073  | flat |
| 86  | Congress Heights                   | 0.027426  | flat |
| 91  | Court House                        | 0.014372  | flat |
| 101 | Deanwood                           | 0.010701  | flat |
| 106 | Dunn Loring                        | 0.013392  | flat |
| 121 | Eastern Market                     | 0.022095  | flat |
| 141 | Federal Center SW                  | 0.048325  | flat |
| 146 | Federal Triangle                   | 0.044362  | flat |
| 156 | Forest Glen                        | 0.039348  | flat |
| 161 | Fort Totten                        | 0.044273  | flat |
| 166 | Franconia-Springfield              | 0.005637  | flat |
| 171 | Friendship Heights                 | 0.048571  | flat |
| 186 | Glenmont                           | 0.020589  | flat |
| 191 | Greenbelt                          | 0.003252  | flat |
| 202 | Huntington                         | 0.039159  | flat |
| 222 | Landover                           | 0.009334  | flat |
| 227 | Largo Town Center                  | -0.015083 | flat |
| 239 | Medical Center                     | 0.003592  | flat |
| 249 | Minnesota Avenue                   | -0.012491 | flat |
| 264 | Navy Yard                          | 0.018881  | flat |
| 269 | Naylor Road                        | -0.018696 | flat |
| 274 | New Carrollton                     | -0.027263 | flat |
| 284 | Pentagon                           | -0.010129 | flat |
| 289 | Pentagon City                      | 0.035508  | flat |
| 294 | Potomac Avenue                     | -0.005397 | flat |
| 299 | Prince George's Plaza              | 0.040480  | flat |
| 304 | Reagan Washington National Airport | -0.006482 | flat |
| 309 | Rhode Island Avenue                | 0.031507  | flat |
| 314 | Rockville                          | 0.027259  | flat |
| 324 | Shady Grove                        | 0.025604  | flat |
| 334 | Silver Spring                      | 0.039978  | flat |
| 344 | Southern Avenue                    | -0.001239 | flat |
| 351 | Stadium-Armory                     | -0.006738 | flat |
| 356 | Suitland                           | -0.029566 | flat |
| 361 | Takoma                             | 0.048215  | flat |
| 371 | Twinbrook                          | 0.024697  | flat |
| 378 | U Street-Cardozo                   | 0.036895  | flat |
| 388 | Van Dorn Street                    | 0.028017  | flat |
| 398 | Vienna                             | 0.033166  | flat |
| 403 | Virginia Square-GMU                | 0.028728  | flat |
| 413 | West Falls Church                  | 0.041903  | flat |
| 418 | West Hyattsville                   | 0.034896  | flat |
| 423 | Wheaton                            | 0.035143  | flat |
| 428 | White Flint                        | 0.048867  | flat |

```

In [15]: for index, row in flat.iterrows():
          s = pd.DataFrame()
          s['Change'] = abs(flat['% Change'] - row['% Change'])
          s['Station'] = flat['Station']

In [16]: threshold = 0.005

In [17]: station = 'White Flint'

In [18]: for index, row in s.iterrows():
          if row['Change'] > threshold:
              di_matrix[station][row['Station']] += 1

In [19]: di_matrix

```

Out[19]:

|                                    | Addison Road | Anacostia | \ |
|------------------------------------|--------------|-----------|---|
| Addison Road                       | 0            | 0         |   |
| Anacostia                          | 0            | 0         |   |
| Archives-Navy Memorial             | 0            | 0         |   |
| Arlington Cemetery                 | 0            | 0         |   |
| Ballston                           | 0            | 0         |   |
| Benning Road                       | 0            | 0         |   |
| Bethesda                           | 0            | 0         |   |
| Braddock Road                      | 0            | 0         |   |
| Branch Avenue                      | 0            | 0         |   |
| Brookland                          | 0            | 0         |   |
| Capitol Heights                    | 0            | 0         |   |
| Capitol South                      | 0            | 0         |   |
| Cheverly                           | 0            | 0         |   |
| Clarendon                          | 0            | 0         |   |
| Cleveland Park                     | 0            | 0         |   |
| College Park-U of MD               | 0            | 0         |   |
| Columbia Heights                   | 0            | 0         |   |
| Congress Heights                   | 0            | 0         |   |
| Court House                        | 0            | 0         |   |
| Crystal City                       | 0            | 0         |   |
| Deanwood                           | 0            | 0         |   |
| Dunn Loring                        | 0            | 0         |   |
| Dupont Circle                      | 0            | 0         |   |
| East Falls Church                  | 0            | 0         |   |
| Eastern Market                     | 0            | 0         |   |
| Eisenhower Avenue                  | 0            | 0         |   |
| Farragut North                     | 0            | 0         |   |
| Farragut West                      | 0            | 0         |   |
| Federal Center SW                  | 0            | 0         |   |
| Federal Triangle                   | 0            | 0         |   |
| ...                                | ...          | ...       |   |
| Prince George's Plaza              | 0            | 0         |   |
| Reagan Washington National Airport | 0            | 0         |   |

|                        |   |   |
|------------------------|---|---|
| Rhode Island Avenue    | 0 | 0 |
| Rockville              | 0 | 0 |
| Rosslyn                | 0 | 0 |
| Shady Grove            | 0 | 0 |
| Shaw-Howard University | 0 | 0 |
| Silver Spring          | 0 | 0 |
| Smithsonian            | 0 | 0 |
| Southern Avenue        | 0 | 0 |
| Spring Hill            | 0 | 0 |
| Stadium-Armory         | 0 | 0 |
| Suitland               | 0 | 0 |
| Takoma                 | 0 | 0 |
| Tenleytown-AU          | 0 | 0 |
| Twinbrook              | 0 | 0 |
| Tysons Corner          | 0 | 0 |
| U Street-Cardozo       | 0 | 0 |
| Union Station          | 0 | 0 |
| Van Dorn Street        | 0 | 0 |
| Van Ness-UDC           | 0 | 0 |
| Vienna                 | 0 | 0 |
| Virginia Square-GMU    | 0 | 0 |
| Waterfront             | 0 | 0 |
| West Falls Church      | 0 | 0 |
| West Hyattsville       | 0 | 0 |
| Wheaton                | 0 | 0 |
| White Flint            | 0 | 0 |
| Wiehle                 | 0 | 0 |
| Woodley Park-Zoo       | 0 | 0 |

Archives-Navy Memorial \

|                        |   |
|------------------------|---|
| Addison Road           | 0 |
| Anacostia              | 0 |
| Archives-Navy Memorial | 0 |
| Arlington Cemetery     | 0 |
| Ballston               | 0 |
| Benning Road           | 0 |
| Bethesda               | 0 |
| Braddock Road          | 0 |
| Branch Avenue          | 0 |
| Brookland              | 0 |
| Capitol Heights        | 0 |
| Capitol South          | 0 |
| Cheverly               | 0 |
| Clarendon              | 0 |
| Cleveland Park         | 0 |
| College Park-U of MD   | 0 |
| Columbia Heights       | 0 |
| Congress Heights       | 0 |

|                                     |            |
|-------------------------------------|------------|
| Court House                         | 0          |
| Crystal City                        | 0          |
| Deanwood                            | 0          |
| Dunn Loring                         | 0          |
| Dupont Circle                       | 0          |
| East Falls Church                   | 0          |
| Eastern Market                      | 0          |
| Eisenhower Avenue                   | 0          |
| Farragut North                      | 0          |
| Farragut West                       | 0          |
| Federal Center SW                   | 0          |
| Federal Triangle                    | 0          |
| ...                                 | ...        |
| Prince George's Plaza               | 0          |
| Reagan Washington National Airport  | 0          |
| Rhode Island Avenue                 | 0          |
| Rockville                           | 0          |
| Rosslyn                             | 0          |
| Shady Grove                         | 0          |
| Shaw-Howard University              | 0          |
| Silver Spring                       | 0          |
| Smithsonian                         | 0          |
| Southern Avenue                     | 0          |
| Spring Hill                         | 0          |
| Stadium-Armory                      | 0          |
| Suitland                            | 0          |
| Takoma                              | 0          |
| Tenleytown-AU                       | 0          |
| Twinbrook                           | 0          |
| Tysons Corner                       | 0          |
| U Street-Cardozo                    | 0          |
| Union Station                       | 0          |
| Van Dorn Street                     | 0          |
| Van Ness-UDC                        | 0          |
| Vienna                              | 0          |
| Virginia Square-GMU                 | 0          |
| Waterfront                          | 0          |
| West Falls Church                   | 0          |
| West Hyattsville                    | 0          |
| Wheaton                             | 0          |
| White Flint                         | 0          |
| Wiehle                              | 0          |
| Woodley Park-Zoo                    | 0          |
|                                     |            |
| Arlington Cemetery    Ballston    \ |            |
| Addison Road                        | 0        0 |
| Anacostia                           | 0        0 |
| Archives-Navy Memorial              | 0        0 |

|                                    |     |     |
|------------------------------------|-----|-----|
| Arlington Cemetery                 | 0   | 0   |
| Ballston                           | 0   | 0   |
| Benning Road                       | 0   | 0   |
| Bethesda                           | 0   | 0   |
| Braddock Road                      | 0   | 0   |
| Branch Avenue                      | 0   | 0   |
| Brookland                          | 0   | 0   |
| Capitol Heights                    | 0   | 0   |
| Capitol South                      | 0   | 0   |
| Cheverly                           | 0   | 0   |
| Clarendon                          | 0   | 0   |
| Cleveland Park                     | 0   | 0   |
| College Park-U of MD               | 0   | 0   |
| Columbia Heights                   | 0   | 0   |
| Congress Heights                   | 0   | 0   |
| Court House                        | 0   | 0   |
| Crystal City                       | 0   | 0   |
| Deanwood                           | 0   | 0   |
| Dunn Loring                        | 0   | 0   |
| Dupont Circle                      | 0   | 0   |
| East Falls Church                  | 0   | 0   |
| Eastern Market                     | 0   | 0   |
| Eisenhower Avenue                  | 0   | 0   |
| Farragut North                     | 0   | 0   |
| Farragut West                      | 0   | 0   |
| Federal Center SW                  | 0   | 0   |
| Federal Triangle                   | 0   | 0   |
| ...                                | ... | ... |
| Prince George's Plaza              | 0   | 0   |
| Reagan Washington National Airport | 0   | 0   |
| Rhode Island Avenue                | 0   | 0   |
| Rockville                          | 0   | 0   |
| Rosslyn                            | 0   | 0   |
| Shady Grove                        | 0   | 0   |
| Shaw-Howard University             | 0   | 0   |
| Silver Spring                      | 0   | 0   |
| Smithsonian                        | 0   | 0   |
| Southern Avenue                    | 0   | 0   |
| Spring Hill                        | 0   | 0   |
| Stadium-Armory                     | 0   | 0   |
| Suitland                           | 0   | 0   |
| Takoma                             | 0   | 0   |
| Tenleytown-AU                      | 0   | 0   |
| Twinbrook                          | 0   | 0   |
| Tysons Corner                      | 0   | 0   |
| U Street-Cardozo                   | 0   | 0   |
| Union Station                      | 0   | 0   |
| Van Dorn Street                    | 0   | 0   |



|                     |   |   |
|---------------------|---|---|
| Van Ness-UDC        | 0 | 0 |
| Vienna              | 0 | 0 |
| Virginia Square-GMU | 0 | 0 |
| Waterfront          | 0 | 0 |
| West Falls Church   | 0 | 0 |
| West Hyattsville    | 0 | 0 |
| Wheaton             | 0 | 0 |
| White Flint         | 0 | 0 |
| Wiehle              | 0 | 0 |
| Woodley Park-Zoo    | 0 | 0 |

|                                    | Benning Road | Bethesda | Braddock Road \ |
|------------------------------------|--------------|----------|-----------------|
| Addison Road                       | 0            | 0        | 0               |
| Anacostia                          | 0            | 0        | 0               |
| Archives-Navy Memorial             | 0            | 0        | 0               |
| Arlington Cemetery                 | 0            | 0        | 0               |
| Ballston                           | 0            | 0        | 0               |
| Benning Road                       | 0            | 0        | 0               |
| Bethesda                           | 0            | 0        | 0               |
| Braddock Road                      | 0            | 0        | 0               |
| Branch Avenue                      | 0            | 0        | 0               |
| Brookland                          | 0            | 0        | 0               |
| Capitol Heights                    | 0            | 0        | 0               |
| Capitol South                      | 0            | 0        | 0               |
| Cheverly                           | 0            | 0        | 0               |
| Clarendon                          | 0            | 0        | 0               |
| Cleveland Park                     | 0            | 0        | 0               |
| College Park-U of MD               | 0            | 0        | 0               |
| Columbia Heights                   | 0            | 0        | 0               |
| Congress Heights                   | 0            | 0        | 0               |
| Court House                        | 0            | 0        | 0               |
| Crystal City                       | 0            | 0        | 0               |
| Deanwood                           | 0            | 0        | 0               |
| Dunn Loring                        | 0            | 0        | 0               |
| Dupont Circle                      | 0            | 0        | 0               |
| East Falls Church                  | 0            | 0        | 0               |
| Eastern Market                     | 0            | 0        | 0               |
| Eisenhower Avenue                  | 0            | 0        | 0               |
| Farragut North                     | 0            | 0        | 0               |
| Farragut West                      | 0            | 0        | 0               |
| Federal Center SW                  | 0            | 0        | 0               |
| Federal Triangle                   | 0            | 0        | 0               |
| ...                                | ...          | ...      | ...             |
| Prince George's Plaza              | 0            | 0        | 0               |
| Reagan Washington National Airport | 0            | 0        | 0               |
| Rhode Island Avenue                | 0            | 0        | 0               |
| Rockville                          | 0            | 0        | 0               |
| Rosslyn                            | 0            | 0        | 0               |

|                        |   |   |   |
|------------------------|---|---|---|
| Shady Grove            | 0 | 0 | 0 |
| Shaw-Howard University | 0 | 0 | 0 |
| Silver Spring          | 0 | 0 | 0 |
| Smithsonian            | 0 | 0 | 0 |
| Southern Avenue        | 0 | 0 | 0 |
| Spring Hill            | 0 | 0 | 0 |
| Stadium-Armory         | 0 | 0 | 0 |
| Suitland               | 0 | 0 | 0 |
| Takoma                 | 0 | 0 | 0 |
| Tenleytown-AU          | 0 | 0 | 0 |
| Twinbrook              | 0 | 0 | 0 |
| Tysons Corner          | 0 | 0 | 0 |
| U Street-Cardozo       | 0 | 0 | 0 |
| Union Station          | 0 | 0 | 0 |
| Van Dorn Street        | 0 | 0 | 0 |
| Van Ness-UDC           | 0 | 0 | 0 |
| Vienna                 | 0 | 0 | 0 |
| Virginia Square-GMU    | 0 | 0 | 0 |
| Waterfront             | 0 | 0 | 0 |
| West Falls Church      | 0 | 0 | 0 |
| West Hyattsville       | 0 | 0 | 0 |
| Wheaton                | 0 | 0 | 0 |
| White Flint            | 0 | 0 | 0 |
| Wiehle                 | 0 | 0 | 0 |
| Woodley Park-Zoo       | 0 | 0 | 0 |

|                        | Branch Avenue | Brookland \ |
|------------------------|---------------|-------------|
| Addison Road           | 0             | 0           |
| Anacostia              | 0             | 0           |
| Archives-Navy Memorial | 0             | 0           |
| Arlington Cemetery     | 0             | 0           |
| Ballston               | 0             | 0           |
| Benning Road           | 0             | 0           |
| Bethesda               | 0             | 0           |
| Braddock Road          | 0             | 0           |
| Branch Avenue          | 0             | 0           |
| Brookland              | 0             | 0           |
| Capitol Heights        | 0             | 0           |
| Capitol South          | 0             | 0           |
| Cheverly               | 0             | 0           |
| Clarendon              | 0             | 0           |
| Cleveland Park         | 0             | 0           |
| College Park-U of MD   | 0             | 0           |
| Columbia Heights       | 0             | 0           |
| Congress Heights       | 0             | 0           |
| Court House            | 0             | 0           |
| Crystal City           | 0             | 0           |
| Deanwood               | 0             | 0           |

|                                    |     |     |
|------------------------------------|-----|-----|
| Dunn Loring                        | 0   | 0   |
| Dupont Circle                      | 0   | 0   |
| East Falls Church                  | 0   | 0   |
| Eastern Market                     | 0   | 0   |
| Eisenhower Avenue                  | 0   | 0   |
| Farragut North                     | 0   | 0   |
| Farragut West                      | 0   | 0   |
| Federal Center SW                  | 0   | 0   |
| Federal Triangle                   | 0   | 0   |
| ...                                | ... | ... |
| Prince George's Plaza              | 0   | 0   |
| Reagan Washington National Airport | 0   | 0   |
| Rhode Island Avenue                | 0   | 0   |
| Rockville                          | 0   | 0   |
| Rosslyn                            | 0   | 0   |
| Shady Grove                        | 0   | 0   |
| Shaw-Howard University             | 0   | 0   |
| Silver Spring                      | 0   | 0   |
| Smithsonian                        | 0   | 0   |
| Southern Avenue                    | 0   | 0   |
| Spring Hill                        | 0   | 0   |
| Stadium-Armory                     | 0   | 0   |
| Suitland                           | 0   | 0   |
| Takoma                             | 0   | 0   |
| Tenleytown-AU                      | 0   | 0   |
| Twinbrook                          | 0   | 0   |
| Tysons Corner                      | 0   | 0   |
| U Street-Cardozo                   | 0   | 0   |
| Union Station                      | 0   | 0   |
| Van Dorn Street                    | 0   | 0   |
| Van Ness-UDC                       | 0   | 0   |
| Vienna                             | 0   | 0   |
| Virginia Square-GMU                | 0   | 0   |
| Waterfront                         | 0   | 0   |
| West Falls Church                  | 0   | 0   |
| West Hyattsville                   | 0   | 0   |
| Wheaton                            | 0   | 0   |
| White Flint                        | 0   | 0   |
| Wiehle                             | 0   | 0   |
| Woodley Park-Zoo                   | 0   | 0   |

|                        |     |              |        |   |
|------------------------|-----|--------------|--------|---|
|                        | ... | Van Ness-UDC | Vienna | \ |
| Addison Road           | ... | 0            | 0      |   |
| Anacostia              | ... | 0            | 0      |   |
| Archives-Navy Memorial | ... | 0            | 0      |   |
| Arlington Cemetery     | ... | 0            | 0      |   |
| Ballston               | ... | 0            | 0      |   |
| Benning Road           | ... | 0            | 0      |   |

|                                    |     |     |     |
|------------------------------------|-----|-----|-----|
| Bethesda                           | ... | 0   | 0   |
| Braddock Road                      | ... | 0   | 0   |
| Branch Avenue                      | ... | 0   | 0   |
| Brookland                          | ... | 0   | 0   |
| Capitol Heights                    | ... | 0   | 0   |
| Capitol South                      | ... | 0   | 0   |
| Cheverly                           | ... | 0   | 0   |
| Clarendon                          | ... | 0   | 0   |
| Cleveland Park                     | ... | 0   | 0   |
| College Park-U of MD               | ... | 0   | 0   |
| Columbia Heights                   | ... | 0   | 0   |
| Congress Heights                   | ... | 0   | 0   |
| Court House                        | ... | 0   | 0   |
| Crystal City                       | ... | 0   | 0   |
| Deanwood                           | ... | 0   | 0   |
| Dunn Loring                        | ... | 0   | 0   |
| Dupont Circle                      | ... | 0   | 0   |
| East Falls Church                  | ... | 0   | 0   |
| Eastern Market                     | ... | 0   | 0   |
| Eisenhower Avenue                  | ... | 0   | 0   |
| Farragut North                     | ... | 0   | 0   |
| Farragut West                      | ... | 0   | 0   |
| Federal Center SW                  | ... | 0   | 0   |
| Federal Triangle                   | ... | 0   | 0   |
| ...                                | ... | ... | ... |
| Prince George's Plaza              | ... | 0   | 0   |
| Reagan Washington National Airport | ... | 0   | 0   |
| Rhode Island Avenue                | ... | 0   | 0   |
| Rockville                          | ... | 0   | 0   |
| Rosslyn                            | ... | 0   | 0   |
| Shady Grove                        | ... | 0   | 0   |
| Shaw-Howard University             | ... | 0   | 0   |
| Silver Spring                      | ... | 0   | 0   |
| Smithsonian                        | ... | 0   | 0   |
| Southern Avenue                    | ... | 0   | 0   |
| Spring Hill                        | ... | 0   | 0   |
| Stadium-Armory                     | ... | 0   | 0   |
| Suitland                           | ... | 0   | 0   |
| Takoma                             | ... | 0   | 0   |
| Tenleytown-AU                      | ... | 0   | 0   |
| Twinbrook                          | ... | 0   | 0   |
| Tysons Corner                      | ... | 0   | 0   |
| U Street-Cardozo                   | ... | 0   | 0   |
| Union Station                      | ... | 0   | 0   |
| Van Dorn Street                    | ... | 0   | 0   |
| Van Ness-UDC                       | ... | 0   | 0   |
| Vienna                             | ... | 0   | 0   |
| Virginia Square-GMU                | ... | 0   | 0   |

|                   |     |   |   |
|-------------------|-----|---|---|
| Waterfront        | ... | 0 | 0 |
| West Falls Church | ... | 0 | 0 |
| West Hyattsville  | ... | 0 | 0 |
| Wheaton           | ... | 0 | 0 |
| White Flint       | ... | 0 | 0 |
| Wiehle            | ... | 0 | 0 |
| Woodley Park-Zoo  | ... | 0 | 0 |

|                                    | Virginia Square-GMU | Waterfront | \ |
|------------------------------------|---------------------|------------|---|
| Addison Road                       | 0                   | 0          |   |
| Anacostia                          | 0                   | 0          |   |
| Archives-Navy Memorial             | 0                   | 0          |   |
| Arlington Cemetery                 | 0                   | 0          |   |
| Ballston                           | 0                   | 0          |   |
| Benning Road                       | 0                   | 0          |   |
| Bethesda                           | 0                   | 0          |   |
| Braddock Road                      | 0                   | 0          |   |
| Branch Avenue                      | 0                   | 0          |   |
| Brookland                          | 0                   | 0          |   |
| Capitol Heights                    | 0                   | 0          |   |
| Capitol South                      | 0                   | 0          |   |
| Cheverly                           | 0                   | 0          |   |
| Clarendon                          | 0                   | 0          |   |
| Cleveland Park                     | 0                   | 0          |   |
| College Park-U of MD               | 0                   | 0          |   |
| Columbia Heights                   | 0                   | 0          |   |
| Congress Heights                   | 0                   | 0          |   |
| Court House                        | 0                   | 0          |   |
| Crystal City                       | 0                   | 0          |   |
| Deanwood                           | 0                   | 0          |   |
| Dunn Loring                        | 0                   | 0          |   |
| Dupont Circle                      | 0                   | 0          |   |
| East Falls Church                  | 0                   | 0          |   |
| Eastern Market                     | 0                   | 0          |   |
| Eisenhower Avenue                  | 0                   | 0          |   |
| Farragut North                     | 0                   | 0          |   |
| Farragut West                      | 0                   | 0          |   |
| Federal Center SW                  | 0                   | 0          |   |
| Federal Triangle                   | 0                   | 0          |   |
| ...                                | ...                 | ...        |   |
| Prince George's Plaza              | 0                   | 0          |   |
| Reagan Washington National Airport | 0                   | 0          |   |
| Rhode Island Avenue                | 0                   | 0          |   |
| Rockville                          | 0                   | 0          |   |
| Rosslyn                            | 0                   | 0          |   |
| Shady Grove                        | 0                   | 0          |   |
| Shaw-Howard University             | 0                   | 0          |   |
| Silver Spring                      | 0                   | 0          |   |

|                     |   |   |
|---------------------|---|---|
| Smithsonian         | 0 | 0 |
| Southern Avenue     | 0 | 0 |
| Spring Hill         | 0 | 0 |
| Stadium-Armory      | 0 | 0 |
| Suitland            | 0 | 0 |
| Takoma              | 0 | 0 |
| Tenleytown-AU       | 0 | 0 |
| Twinbrook           | 0 | 0 |
| Tysons Corner       | 0 | 0 |
| U Street-Cardozo    | 0 | 0 |
| Union Station       | 0 | 0 |
| Van Dorn Street     | 0 | 0 |
| Van Ness-UDC        | 0 | 0 |
| Vienna              | 0 | 0 |
| Virginia Square-GMU | 0 | 0 |
| Waterfront          | 0 | 0 |
| West Falls Church   | 0 | 0 |
| West Hyattsville    | 0 | 0 |
| Wheaton             | 0 | 0 |
| White Flint         | 0 | 0 |
| Wiehle              | 0 | 0 |
| Woodley Park-Zoo    | 0 | 0 |

|                        | West Falls Church | West Hyattsville \ |
|------------------------|-------------------|--------------------|
| Addison Road           | 0                 | 0                  |
| Anacostia              | 0                 | 0                  |
| Archives-Navy Memorial | 0                 | 0                  |
| Arlington Cemetery     | 0                 | 0                  |
| Ballston               | 0                 | 0                  |
| Benning Road           | 0                 | 0                  |
| Bethesda               | 0                 | 0                  |
| Braddock Road          | 0                 | 0                  |
| Branch Avenue          | 0                 | 0                  |
| Brookland              | 0                 | 0                  |
| Capitol Heights        | 0                 | 0                  |
| Capitol South          | 0                 | 0                  |
| Cheverly               | 0                 | 0                  |
| Clarendon              | 0                 | 0                  |
| Cleveland Park         | 0                 | 0                  |
| College Park-U of MD   | 0                 | 0                  |
| Columbia Heights       | 0                 | 0                  |
| Congress Heights       | 0                 | 0                  |
| Court House            | 0                 | 0                  |
| Crystal City           | 0                 | 0                  |
| Deanwood               | 0                 | 0                  |
| Dunn Loring            | 0                 | 0                  |
| Dupont Circle          | 0                 | 0                  |
| East Falls Church      | 0                 | 0                  |

|                                    |     |     |
|------------------------------------|-----|-----|
| Eastern Market                     | 0   | 0   |
| Eisenhower Avenue                  | 0   | 0   |
| Farragut North                     | 0   | 0   |
| Farragut West                      | 0   | 0   |
| Federal Center SW                  | 0   | 0   |
| Federal Triangle                   | 0   | 0   |
| ...                                | ... | ... |
| Prince George's Plaza              | 0   | 0   |
| Reagan Washington National Airport | 0   | 0   |
| Rhode Island Avenue                | 0   | 0   |
| Rockville                          | 0   | 0   |
| Rosslyn                            | 0   | 0   |
| Shady Grove                        | 0   | 0   |
| Shaw-Howard University             | 0   | 0   |
| Silver Spring                      | 0   | 0   |
| Smithsonian                        | 0   | 0   |
| Southern Avenue                    | 0   | 0   |
| Spring Hill                        | 0   | 0   |
| Stadium-Armory                     | 0   | 0   |
| Suitland                           | 0   | 0   |
| Takoma                             | 0   | 0   |
| Tenleytown-AU                      | 0   | 0   |
| Twinbrook                          | 0   | 0   |
| Tysons Corner                      | 0   | 0   |
| U Street-Cardozo                   | 0   | 0   |
| Union Station                      | 0   | 0   |
| Van Dorn Street                    | 0   | 0   |
| Van Ness-UDC                       | 0   | 0   |
| Vienna                             | 0   | 0   |
| Virginia Square-GMU                | 0   | 0   |
| Waterfront                         | 0   | 0   |
| West Falls Church                  | 0   | 0   |
| West Hyattsville                   | 0   | 0   |
| Wheaton                            | 0   | 0   |
| White Flint                        | 0   | 0   |
| Wiehle                             | 0   | 0   |
| Woodley Park-Zoo                   | 0   | 0   |

|                        | Wheaton | White Flint | Wiehle | \ |
|------------------------|---------|-------------|--------|---|
| Addison Road           | 0       | 1           | 0      |   |
| Anacostia              | 0       | 1           | 0      |   |
| Archives-Navy Memorial | 0       | 0           | 0      |   |
| Arlington Cemetery     | 0       | 0           | 0      |   |
| Ballston               | 0       | 1           | 0      |   |
| Benning Road           | 0       | 1           | 0      |   |
| Bethesda               | 0       | 1           | 0      |   |
| Braddock Road          | 0       | 0           | 0      |   |
| Branch Avenue          | 0       | 1           | 0      |   |

|                                    |     |     |     |
|------------------------------------|-----|-----|-----|
| Brookland                          | 0   | 0   | 0   |
| Capitol Heights                    | 0   | 1   | 0   |
| Capitol South                      | 0   | 1   | 0   |
| Cheverly                           | 0   | 1   | 0   |
| Clarendon                          | 0   | 0   | 0   |
| Cleveland Park                     | 0   | 0   | 0   |
| College Park-U of MD               | 0   | 0   | 0   |
| Columbia Heights                   | 0   | 1   | 0   |
| Congress Heights                   | 0   | 1   | 0   |
| Court House                        | 0   | 1   | 0   |
| Crystal City                       | 0   | 0   | 0   |
| Deanwood                           | 0   | 1   | 0   |
| Dunn Loring                        | 0   | 1   | 0   |
| Dupont Circle                      | 0   | 0   | 0   |
| East Falls Church                  | 0   | 0   | 0   |
| Eastern Market                     | 0   | 1   | 0   |
| Eisenhower Avenue                  | 0   | 0   | 0   |
| Farragut North                     | 0   | 0   | 0   |
| Farragut West                      | 0   | 0   | 0   |
| Federal Center SW                  | 0   | 0   | 0   |
| Federal Triangle                   | 0   | 0   | 0   |
| ...                                | ... | ... | ... |
| Prince George's Plaza              | 0   | 1   | 0   |
| Reagan Washington National Airport | 0   | 1   | 0   |
| Rhode Island Avenue                | 0   | 1   | 0   |
| Rockville                          | 0   | 1   | 0   |
| Rosslyn                            | 0   | 0   | 0   |
| Shady Grove                        | 0   | 1   | 0   |
| Shaw-Howard University             | 0   | 0   | 0   |
| Silver Spring                      | 0   | 1   | 0   |
| Smithsonian                        | 0   | 0   | 0   |
| Southern Avenue                    | 0   | 1   | 0   |
| Spring Hill                        | 0   | 0   | 0   |
| Stadium-Armory                     | 0   | 1   | 0   |
| Suitland                           | 0   | 1   | 0   |
| Takoma                             | 0   | 0   | 0   |
| Tenleytown-AU                      | 0   | 0   | 0   |
| Twinbrook                          | 0   | 1   | 0   |
| Tysons Corner                      | 0   | 0   | 0   |
| U Street-Cardozo                   | 0   | 1   | 0   |
| Union Station                      | 0   | 0   | 0   |
| Van Dorn Street                    | 0   | 1   | 0   |
| Van Ness-UDC                       | 0   | 0   | 0   |
| Vienna                             | 0   | 1   | 0   |
| Virginia Square-GMU                | 0   | 1   | 0   |
| Waterfront                         | 0   | 0   | 0   |
| West Falls Church                  | 0   | 1   | 0   |
| West Hyattsville                   | 0   | 1   | 0   |



|                  |   |   |   |
|------------------|---|---|---|
| Wheaton          | 0 | 1 | 0 |
| White Flint      | 0 | 0 | 0 |
| Wiehle           | 0 | 0 | 0 |
| Woodley Park-Zoo | 0 | 0 | 0 |

Woodley Park-Zoo

|                                    |     |
|------------------------------------|-----|
| Addison Road                       | 0   |
| Anacostia                          | 0   |
| Archives-Navy Memorial             | 0   |
| Arlington Cemetery                 | 0   |
| Ballston                           | 0   |
| Benning Road                       | 0   |
| Bethesda                           | 0   |
| Braddock Road                      | 0   |
| Branch Avenue                      | 0   |
| Brookland                          | 0   |
| Capitol Heights                    | 0   |
| Capitol South                      | 0   |
| Cheverly                           | 0   |
| Clarendon                          | 0   |
| Cleveland Park                     | 0   |
| College Park-U of MD               | 0   |
| Columbia Heights                   | 0   |
| Congress Heights                   | 0   |
| Court House                        | 0   |
| Crystal City                       | 0   |
| Deanwood                           | 0   |
| Dunn Loring                        | 0   |
| Dupont Circle                      | 0   |
| East Falls Church                  | 0   |
| Eastern Market                     | 0   |
| Eisenhower Avenue                  | 0   |
| Farragut North                     | 0   |
| Farragut West                      | 0   |
| Federal Center SW                  | 0   |
| Federal Triangle                   | 0   |
| ...                                | ... |
| Prince George's Plaza              | 0   |
| Reagan Washington National Airport | 0   |
| Rhode Island Avenue                | 0   |
| Rockville                          | 0   |
| Rosslyn                            | 0   |
| Shady Grove                        | 0   |
| Shaw-Howard University             | 0   |
| Silver Spring                      | 0   |
| Smithsonian                        | 0   |
| Southern Avenue                    | 0   |
| Spring Hill                        | 0   |

|                     |   |
|---------------------|---|
| Stadium-Armory      | 0 |
| Suitland            | 0 |
| Takoma              | 0 |
| Tenleytown-AU       | 0 |
| Twinbrook           | 0 |
| Tysons Corner       | 0 |
| U Street-Cardozo    | 0 |
| Union Station       | 0 |
| Van Dorn Street     | 0 |
| Van Ness-UDC        | 0 |
| Vienna              | 0 |
| Virginia Square-GMU | 0 |
| Waterfront          | 0 |
| West Falls Church   | 0 |
| West Hyattsville    | 0 |
| Wheaton             | 0 |
| White Flint         | 0 |
| Wiehle              | 0 |
| Woodley Park-Zoo    | 0 |

[91 rows x 91 columns]

```
In [20]: # Similarly for every other station:
di_matrix = pd.DataFrame(data=values,index=stations,columns=stations,dtype='int64')

In [21]: def find_spd_by_label(group):
    labels = group.groupby("Label")

    for name, group in labels:
        print("For group: ", name)
        find_same_label_spd(group)

In [22]: def find_same_label_spd(group):
    for index, row in group.iterrows():
        s = pd.DataFrame()
        s['Change'] = abs(group['% Change'] - row['% Change'])
        s['Station'] = group['Station']
        calc_spd(s, row['Station'])

In [23]: def calc_spd(change_list, station):
    threshold = 0.005
    for index, row in change_list.iterrows():
        if row['Change'] > threshold:
            di_matrix[station][row['Station']] += 1

In [24]: for name, group in year_wise:
    year_group = group[['Station','% Change','Label']]
    find_spd_by_label(year_group)
```

```

For group: flat
For group: flat
For group: up
For group: down
For group: flat
For group: up
For group: down
For group: flat
For group: up
For group: down
For group: flat
For group: up

```

```
In [25]: di_matrix
```

```

Out[25]:

```

|                        | Addison Road | Anacostia \ |
|------------------------|--------------|-------------|
| Addison Road           | 0            | 2           |
| Anacostia              | 2            | 0           |
| Archives-Navy Memorial | 2            | 1           |
| Arlington Cemetery     | 0            | 1           |
| Ballston               | 3            | 2           |
| Benning Road           | 3            | 4           |
| Bethesda               | 3            | 2           |
| Braddock Road          | 2            | 3           |
| Branch Avenue          | 3            | 3           |
| Brookland              | 2            | 3           |
| Capitol Heights        | 3            | 2           |
| Capitol South          | 2            | 3           |
| Cheverly               | 3            | 3           |
| Clarendon              | 2            | 3           |
| Cleveland Park         | 1            | 3           |
| College Park-U of MD   | 0            | 3           |
| Columbia Heights       | 3            | 3           |
| Congress Heights       | 2            | 2           |
| Court House            | 3            | 4           |
| Crystal City           | 1            | 1           |
| Deanwood               | 3            | 3           |
| Dunn Loring            | 3            | 3           |
| Dupont Circle          | 2            | 2           |
| East Falls Church      | 2            | 3           |
| Eastern Market         | 3            | 3           |
| Eisenhower Avenue      | 2            | 1           |
| Farragut North         | 0            | 1           |
| Farragut West          | 1            | 2           |
| Federal Center SW      | 2            | 4           |
| Federal Triangle       | 1            | 1           |
| ...                    | ...          | ...         |

|                                    |   |   |
|------------------------------------|---|---|
| Prince George's Plaza              | 3 | 3 |
| Reagan Washington National Airport | 3 | 4 |
| Rhode Island Avenue                | 2 | 3 |
| Rockville                          | 2 | 3 |
| Rosslyn                            | 1 | 2 |
| Shady Grove                        | 2 | 2 |
| Shaw-Howard University             | 1 | 1 |
| Silver Spring                      | 3 | 4 |
| Smithsonian                        | 2 | 1 |
| Southern Avenue                    | 1 | 2 |
| Spring Hill                        | 1 | 1 |
| Stadium-Armory                     | 3 | 4 |
| Suitland                           | 1 | 2 |
| Takoma                             | 2 | 4 |
| Tenleytown-AU                      | 0 | 3 |
| Twinbrook                          | 2 | 4 |
| Tysons Corner                      | 1 | 1 |
| U Street-Cardozo                   | 3 | 4 |
| Union Station                      | 2 | 2 |
| Van Dorn Street                    | 2 | 4 |
| Van Ness-UDC                       | 2 | 3 |
| Vienna                             | 1 | 3 |
| Virginia Square-GMU                | 3 | 3 |
| Waterfront                         | 1 | 1 |
| West Falls Church                  | 2 | 1 |
| West Hyattsville                   | 3 | 4 |
| Wheaton                            | 2 | 3 |
| White Flint                        | 3 | 4 |
| Wiehle                             | 1 | 1 |
| Woodley Park-Zoo                   | 1 | 3 |

Archives-Navy Memorial \

|                        |   |
|------------------------|---|
| Addison Road           | 2 |
| Anacostia              | 1 |
| Archives-Navy Memorial | 0 |
| Arlington Cemetery     | 1 |
| Ballston               | 2 |
| Benning Road           | 2 |
| Bethesda               | 1 |
| Braddock Road          | 3 |
| Branch Avenue          | 1 |
| Brookland              | 3 |
| Capitol Heights        | 1 |
| Capitol South          | 2 |
| Cheverly               | 2 |
| Clarendon              | 3 |
| Cleveland Park         | 3 |
| College Park-U of MD   | 3 |

|                                    |     |                    |            |
|------------------------------------|-----|--------------------|------------|
| Columbia Heights                   | 2   |                    |            |
| Congress Heights                   | 2   |                    |            |
| Court House                        | 2   |                    |            |
| Crystal City                       | 2   |                    |            |
| Deanwood                           | 1   |                    |            |
| Dunn Loring                        | 2   |                    |            |
| Dupont Circle                      | 3   |                    |            |
| East Falls Church                  | 2   |                    |            |
| Eastern Market                     | 1   |                    |            |
| Eisenhower Avenue                  | 2   |                    |            |
| Farragut North                     | 2   |                    |            |
| Farragut West                      | 4   |                    |            |
| Federal Center SW                  | 2   |                    |            |
| Federal Triangle                   | 0   |                    |            |
| ...                                | ... |                    |            |
| Prince George's Plaza              | 2   |                    |            |
| Reagan Washington National Airport | 2   |                    |            |
| Rhode Island Avenue                | 3   |                    |            |
| Rockville                          | 1   |                    |            |
| Rosslyn                            | 3   |                    |            |
| Shady Grove                        | 0   |                    |            |
| Shaw-Howard University             | 2   |                    |            |
| Silver Spring                      | 2   |                    |            |
| Smithsonian                        | 1   |                    |            |
| Southern Avenue                    | 0   |                    |            |
| Spring Hill                        | 1   |                    |            |
| Stadium-Armory                     | 2   |                    |            |
| Suitland                           | 0   |                    |            |
| Takoma                             | 2   |                    |            |
| Tenleytown-AU                      | 3   |                    |            |
| Twinbrook                          | 2   |                    |            |
| Tysons Corner                      | 1   |                    |            |
| U Street-Cardozo                   | 2   |                    |            |
| Union Station                      | 3   |                    |            |
| Van Dorn Street                    | 2   |                    |            |
| Van Ness-UDC                       | 3   |                    |            |
| Vienna                             | 1   |                    |            |
| Virginia Square-GMU                | 2   |                    |            |
| Waterfront                         | 4   |                    |            |
| West Falls Church                  | 0   |                    |            |
| West Hyattsville                   | 2   |                    |            |
| Wheaton                            | 2   |                    |            |
| White Flint                        | 2   |                    |            |
| Wiehle                             | 1   |                    |            |
| Woodley Park-Zoo                   | 3   |                    |            |
|                                    |     | Arlington Cemetery | Ballston \ |
| Addison Road                       | 0   |                    | 3          |

|                                    |     |     |
|------------------------------------|-----|-----|
| Anacostia                          | 1   | 2   |
| Archives-Navy Memorial             | 1   | 2   |
| Arlington Cemetery                 | 0   | 1   |
| Ballston                           | 1   | 0   |
| Benning Road                       | 1   | 3   |
| Bethesda                           | 1   | 3   |
| Braddock Road                      | 2   | 3   |
| Branch Avenue                      | 1   | 4   |
| Brookland                          | 2   | 3   |
| Capitol Heights                    | 1   | 3   |
| Capitol South                      | 1   | 4   |
| Cheverly                           | 1   | 2   |
| Clarendon                          | 2   | 3   |
| Cleveland Park                     | 2   | 3   |
| College Park-U of MD               | 2   | 3   |
| Columbia Heights                   | 1   | 4   |
| Congress Heights                   | 0   | 1   |
| Court House                        | 1   | 3   |
| Crystal City                       | 3   | 1   |
| Deanwood                           | 1   | 4   |
| Dunn Loring                        | 0   | 3   |
| Dupont Circle                      | 1   | 2   |
| East Falls Church                  | 2   | 3   |
| Eastern Market                     | 1   | 4   |
| Eisenhower Avenue                  | 2   | 2   |
| Farragut North                     | 2   | 1   |
| Farragut West                      | 1   | 2   |
| Federal Center SW                  | 0   | 3   |
| Federal Triangle                   | 1   | 1   |
| ...                                | ... | ... |
| Prince George's Plaza              | 1   | 3   |
| Reagan Washington National Airport | 1   | 4   |
| Rhode Island Avenue                | 0   | 2   |
| Rockville                          | 1   | 1   |
| Rosslyn                            | 2   | 2   |
| Shady Grove                        | 1   | 2   |
| Shaw-Howard University             | 2   | 1   |
| Silver Spring                      | 1   | 3   |
| Smithsonian                        | 2   | 1   |
| Southern Avenue                    | 2   | 2   |
| Spring Hill                        | 1   | 1   |
| Stadium-Armory                     | 1   | 4   |
| Suitland                           | 2   | 2   |
| Takoma                             | 1   | 4   |
| Tenleytown-AU                      | 2   | 3   |
| Twinbrook                          | 1   | 3   |
| Tysons Corner                      | 1   | 1   |
| U Street-Cardozo                   | 1   | 4   |

|                     |   |   |
|---------------------|---|---|
| Union Station       | 2 | 2 |
| Van Dorn Street     | 1 | 3 |
| Van Ness-UDC        | 2 | 3 |
| Vienna              | 1 | 2 |
| Virginia Square-GMU | 1 | 2 |
| Waterfront          | 1 | 2 |
| West Falls Church   | 1 | 2 |
| West Hyattsville    | 1 | 4 |
| Wheaton             | 0 | 3 |
| White Flint         | 1 | 4 |
| Wiehle              | 1 | 1 |
| Woodley Park-Zoo    | 2 | 3 |

|                                    | Benning Road | Bethesda | Braddock Road \ |
|------------------------------------|--------------|----------|-----------------|
| Addison Road                       | 3            | 3        | 2               |
| Anacostia                          | 4            | 2        | 3               |
| Archives-Navy Memorial             | 2            | 1        | 3               |
| Arlington Cemetery                 | 1            | 1        | 2               |
| Ballston                           | 3            | 3        | 3               |
| Benning Road                       | 0            | 3        | 3               |
| Bethesda                           | 3            | 0        | 3               |
| Braddock Road                      | 3            | 3        | 0               |
| Branch Avenue                      | 4            | 3        | 3               |
| Brookland                          | 3            | 3        | 3               |
| Capitol Heights                    | 4            | 1        | 3               |
| Capitol South                      | 3            | 4        | 3               |
| Cheverly                           | 4            | 3        | 3               |
| Clarendon                          | 2            | 3        | 4               |
| Cleveland Park                     | 3            | 3        | 4               |
| College Park-U of MD               | 3            | 3        | 2               |
| Columbia Heights                   | 4            | 3        | 3               |
| Congress Heights                   | 2            | 2        | 0               |
| Court House                        | 1            | 3        | 3               |
| Crystal City                       | 2            | 1        | 3               |
| Deanwood                           | 4            | 3        | 3               |
| Dunn Loring                        | 3            | 3        | 2               |
| Dupont Circle                      | 2            | 2        | 3               |
| East Falls Church                  | 3            | 2        | 4               |
| Eastern Market                     | 4            | 3        | 2               |
| Eisenhower Avenue                  | 3            | 1        | 4               |
| Farragut North                     | 1            | 1        | 2               |
| Farragut West                      | 2            | 2        | 2               |
| Federal Center SW                  | 3            | 4        | 3               |
| Federal Triangle                   | 1            | 0        | 0               |
| ...                                | ...          | ...      | ...             |
| Prince George's Plaza              | 4            | 2        | 2               |
| Reagan Washington National Airport | 3            | 4        | 3               |
| Rhode Island Avenue                | 3            | 3        | 2               |

|                        |   |   |   |
|------------------------|---|---|---|
| Rockville              | 3 | 3 | 2 |
| Rosslyn                | 2 | 3 | 3 |
| Shady Grove            | 3 | 2 | 1 |
| Shaw-Howard University | 1 | 1 | 2 |
| Silver Spring          | 4 | 3 | 3 |
| Smithsonian            | 1 | 1 | 2 |
| Southern Avenue        | 2 | 2 | 1 |
| Spring Hill            | 1 | 1 | 0 |
| Stadium-Armory         | 4 | 4 | 3 |
| Suitland               | 2 | 2 | 1 |
| Takoma                 | 4 | 4 | 3 |
| Tenleytown-AU          | 2 | 3 | 4 |
| Twinbrook              | 3 | 4 | 3 |
| Tysons Corner          | 1 | 1 | 0 |
| U Street-Cardozo       | 3 | 4 | 2 |
| Union Station          | 3 | 3 | 3 |
| Van Dorn Street        | 4 | 4 | 3 |
| Van Ness-UDC           | 3 | 3 | 4 |
| Vienna                 | 3 | 3 | 1 |
| Virginia Square-GMU    | 3 | 4 | 2 |
| Waterfront             | 2 | 2 | 2 |
| West Falls Church      | 3 | 0 | 2 |
| West Hyattsville       | 4 | 3 | 3 |
| Wheaton                | 3 | 3 | 2 |
| White Flint            | 4 | 4 | 3 |
| Wiehle                 | 1 | 1 | 0 |
| Woodley Park-Zoo       | 2 | 3 | 4 |

|                        | Branch Avenue | Brookland \ |
|------------------------|---------------|-------------|
| Addison Road           | 3             | 2           |
| Anacostia              | 3             | 3           |
| Archives-Navy Memorial | 1             | 3           |
| Arlington Cemetery     | 1             | 2           |
| Ballston               | 4             | 3           |
| Benning Road           | 4             | 3           |
| Bethesda               | 3             | 3           |
| Braddock Road          | 3             | 3           |
| Branch Avenue          | 0             | 3           |
| Brookland              | 3             | 0           |
| Capitol Heights        | 3             | 3           |
| Capitol South          | 4             | 3           |
| Cheverly               | 3             | 3           |
| Clarendon              | 3             | 4           |
| Cleveland Park         | 3             | 2           |
| College Park-U of MD   | 3             | 4           |
| Columbia Heights       | 4             | 2           |
| Congress Heights       | 2             | 1           |
| Court House            | 3             | 3           |



|                                    |     |              |        |   |
|------------------------------------|-----|--------------|--------|---|
| Crystal City                       | 2   | 2            |        |   |
| Deanwood                           | 2   | 3            |        |   |
| Dunn Loring                        | 3   | 2            |        |   |
| Dupont Circle                      | 2   | 1            |        |   |
| East Falls Church                  | 3   | 3            |        |   |
| Eastern Market                     | 2   | 3            |        |   |
| Eisenhower Avenue                  | 1   | 4            |        |   |
| Farragut North                     | 1   | 2            |        |   |
| Farragut West                      | 2   | 2            |        |   |
| Federal Center SW                  | 4   | 3            |        |   |
| Federal Triangle                   | 1   | 0            |        |   |
| ...                                | ... | ...          |        |   |
| Prince George's Plaza              | 3   | 3            |        |   |
| Reagan Washington National Airport | 4   | 3            |        |   |
| Rhode Island Avenue                | 3   | 2            |        |   |
| Rockville                          | 2   | 2            |        |   |
| Rosslyn                            | 3   | 4            |        |   |
| Shady Grove                        | 1   | 2            |        |   |
| Shaw-Howard University             | 1   | 2            |        |   |
| Silver Spring                      | 4   | 3            |        |   |
| Smithsonian                        | 1   | 2            |        |   |
| Southern Avenue                    | 2   | 1            |        |   |
| Spring Hill                        | 1   | 0            |        |   |
| Stadium-Armory                     | 4   | 2            |        |   |
| Suitland                           | 2   | 1            |        |   |
| Takoma                             | 3   | 2            |        |   |
| Tenleytown-AU                      | 3   | 4            |        |   |
| Twinbrook                          | 3   | 3            |        |   |
| Tysons Corner                      | 1   | 0            |        |   |
| U Street-Cardozo                   | 3   | 3            |        |   |
| Union Station                      | 3   | 4            |        |   |
| Van Dorn Street                    | 4   | 3            |        |   |
| Van Ness-UDC                       | 2   | 4            |        |   |
| Vienna                             | 3   | 2            |        |   |
| Virginia Square-GMU                | 4   | 2            |        |   |
| Waterfront                         | 2   | 3            |        |   |
| West Falls Church                  | 1   | 2            |        |   |
| West Hyattsville                   | 4   | 3            |        |   |
| Wheaton                            | 3   | 2            |        |   |
| White Flint                        | 4   | 3            |        |   |
| Wiehle                             | 1   | 0            |        |   |
| Woodley Park-Zoo                   | 3   | 4            |        |   |
| ...                                | ... | Van Ness-UDC | Vienna | \ |
| Addison Road                       | ... | 2            | 1      |   |
| Anacostia                          | ... | 3            | 3      |   |
| Archives-Navy Memorial             | ... | 3            | 1      |   |
| Arlington Cemetery                 | ... | 2            | 1      |   |

|                                    |     |     |     |
|------------------------------------|-----|-----|-----|
| Ballston                           | ... | 3   | 2   |
| Benning Road                       | ... | 3   | 3   |
| Bethesda                           | ... | 3   | 3   |
| Braddock Road                      | ... | 4   | 1   |
| Branch Avenue                      | ... | 2   | 3   |
| Brookland                          | ... | 4   | 2   |
| Capitol Heights                    | ... | 2   | 3   |
| Capitol South                      | ... | 3   | 3   |
| Cheverly                           | ... | 2   | 3   |
| Clarendon                          | ... | 4   | 2   |
| Cleveland Park                     | ... | 2   | 1   |
| College Park-U of MD               | ... | 4   | 0   |
| Columbia Heights                   | ... | 3   | 3   |
| Congress Heights                   | ... | 1   | 3   |
| Court House                        | ... | 3   | 3   |
| Crystal City                       | ... | 3   | 1   |
| Deanwood                           | ... | 3   | 3   |
| Dunn Loring                        | ... | 2   | 2   |
| Dupont Circle                      | ... | 3   | 1   |
| East Falls Church                  | ... | 4   | 2   |
| Eastern Market                     | ... | 3   | 2   |
| Eisenhower Avenue                  | ... | 2   | 2   |
| Farragut North                     | ... | 2   | 0   |
| Farragut West                      | ... | 3   | 1   |
| Federal Center SW                  | ... | 2   | 2   |
| Federal Triangle                   | ... | 0   | 2   |
| ...                                | ... | ... | ... |
| Prince George's Plaza              | ... | 3   | 3   |
| Reagan Washington National Airport | ... | 3   | 3   |
| Rhode Island Avenue                | ... | 2   | 1   |
| Rockville                          | ... | 2   | 4   |
| Rosslyn                            | ... | 4   | 0   |
| Shady Grove                        | ... | 2   | 3   |
| Shaw-Howard University             | ... | 2   | 1   |
| Silver Spring                      | ... | 3   | 3   |
| Smithsonian                        | ... | 2   | 0   |
| Southern Avenue                    | ... | 0   | 3   |
| Spring Hill                        | ... | 1   | 1   |
| Stadium-Armory                     | ... | 3   | 3   |
| Suitland                           | ... | 1   | 3   |
| Takoma                             | ... | 2   | 2   |
| Tenleytown-AU                      | ... | 3   | 1   |
| Twinbrook                          | ... | 3   | 3   |
| Tysons Corner                      | ... | 1   | 1   |
| U Street-Cardozo                   | ... | 3   | 2   |
| Union Station                      | ... | 4   | 1   |
| Van Dorn Street                    | ... | 3   | 3   |
| Van Ness-UDC                       | ... | 0   | 2   |

|                     |     |   |   |
|---------------------|-----|---|---|
| Vienna              | ... | 2 | 0 |
| Virginia Square-GMU | ... | 3 | 2 |
| Waterfront          | ... | 2 | 0 |
| West Falls Church   | ... | 2 | 4 |
| West Hyattsville    | ... | 3 | 2 |
| Wheaton             | ... | 2 | 0 |
| White Flint         | ... | 3 | 3 |
| Wiehle              | ... | 1 | 1 |
| Woodley Park-Zoo    | ... | 4 | 2 |

|                                    | Virginia Square-GMU | Waterfront \ |
|------------------------------------|---------------------|--------------|
| Addison Road                       | 3                   | 1            |
| Anacostia                          | 3                   | 1            |
| Archives-Navy Memorial             | 2                   | 4            |
| Arlington Cemetery                 | 1                   | 1            |
| Ballston                           | 2                   | 2            |
| Benning Road                       | 3                   | 2            |
| Bethesda                           | 4                   | 2            |
| Braddock Road                      | 2                   | 2            |
| Branch Avenue                      | 4                   | 2            |
| Brookland                          | 2                   | 3            |
| Capitol Heights                    | 4                   | 2            |
| Capitol South                      | 4                   | 2            |
| Cheverly                           | 4                   | 2            |
| Clarendon                          | 3                   | 3            |
| Cleveland Park                     | 2                   | 2            |
| College Park-U of MD               | 3                   | 2            |
| Columbia Heights                   | 3                   | 1            |
| Congress Heights                   | 0                   | 1            |
| Court House                        | 4                   | 2            |
| Crystal City                       | 2                   | 2            |
| Deanwood                           | 3                   | 2            |
| Dunn Loring                        | 3                   | 2            |
| Dupont Circle                      | 2                   | 3            |
| East Falls Church                  | 3                   | 3            |
| Eastern Market                     | 4                   | 1            |
| Eisenhower Avenue                  | 3                   | 3            |
| Farragut North                     | 1                   | 3            |
| Farragut West                      | 1                   | 4            |
| Federal Center SW                  | 3                   | 1            |
| Federal Triangle                   | 1                   | 0            |
| ...                                | ...                 | ...          |
| Prince George's Plaza              | 3                   | 2            |
| Reagan Washington National Airport | 4                   | 2            |
| Rhode Island Avenue                | 2                   | 3            |
| Rockville                          | 2                   | 1            |
| Rosslyn                            | 2                   | 3            |
| Shady Grove                        | 2                   | 1            |

|                        |   |   |
|------------------------|---|---|
| Shaw-Howard University | 1 | 3 |
| Silver Spring          | 3 | 2 |
| Smithsonian            | 1 | 2 |
| Southern Avenue        | 2 | 0 |
| Spring Hill            | 0 | 1 |
| Stadium-Armory         | 4 | 2 |
| Suitland               | 2 | 0 |
| Takoma                 | 3 | 2 |
| Tenleytown-AU          | 2 | 2 |
| Twinbrook              | 3 | 2 |
| Tysons Corner          | 0 | 1 |
| U Street-Cardozo       | 4 | 2 |
| Union Station          | 3 | 2 |
| Van Dorn Street        | 3 | 2 |
| Van Ness-UDC           | 3 | 2 |
| Vienna                 | 2 | 0 |
| Virginia Square-GMU    | 0 | 1 |
| Waterfront             | 1 | 0 |
| West Falls Church      | 3 | 1 |
| West Hyattsville       | 4 | 2 |
| Wheaton                | 3 | 2 |
| White Flint            | 4 | 2 |
| Wiehle                 | 0 | 1 |
| Woodley Park-Zoo       | 2 | 3 |

|                        | West Falls Church | West Hyattsville \ |
|------------------------|-------------------|--------------------|
| Addison Road           | 2                 | 3                  |
| Anacostia              | 1                 | 4                  |
| Archives-Navy Memorial | 0                 | 2                  |
| Arlington Cemetery     | 1                 | 1                  |
| Ballston               | 2                 | 4                  |
| Benning Road           | 3                 | 4                  |
| Bethesda               | 0                 | 3                  |
| Braddock Road          | 2                 | 3                  |
| Branch Avenue          | 1                 | 4                  |
| Brookland              | 2                 | 3                  |
| Capitol Heights        | 2                 | 3                  |
| Capitol South          | 3                 | 3                  |
| Cheverly               | 2                 | 4                  |
| Clarendon              | 2                 | 3                  |
| Cleveland Park         | 2                 | 3                  |
| College Park-U of MD   | 2                 | 3                  |
| Columbia Heights       | 2                 | 2                  |
| Congress Heights       | 3                 | 1                  |
| Court House            | 3                 | 3                  |
| Crystal City           | 0                 | 2                  |
| Deanwood               | 2                 | 4                  |
| Dunn Loring            | 2                 | 2                  |

|                                    |     |     |
|------------------------------------|-----|-----|
| Dupont Circle                      | 1   | 2   |
| East Falls Church                  | 2   | 2   |
| Eastern Market                     | 2   | 4   |
| Eisenhower Avenue                  | 0   | 3   |
| Farragut North                     | 0   | 1   |
| Farragut West                      | 1   | 2   |
| Federal Center SW                  | 3   | 4   |
| Federal Triangle                   | 1   | 1   |
| ...                                | ... | ... |
| Prince George's Plaza              | 1   | 3   |
| Reagan Washington National Airport | 3   | 4   |
| Rhode Island Avenue                | 2   | 2   |
| Rockville                          | 3   | 3   |
| Rosslyn                            | 2   | 3   |
| Shady Grove                        | 3   | 3   |
| Shaw-Howard University             | 1   | 1   |
| Silver Spring                      | 2   | 3   |
| Smithsonian                        | 0   | 1   |
| Southern Avenue                    | 3   | 2   |
| Spring Hill                        | 1   | 1   |
| Stadium-Armory                     | 3   | 3   |
| Suitland                           | 3   | 2   |
| Takoma                             | 3   | 4   |
| Tenleytown-AU                      | 2   | 3   |
| Twinbrook                          | 3   | 4   |
| Tysons Corner                      | 1   | 1   |
| U Street-Cardozo                   | 2   | 3   |
| Union Station                      | 2   | 3   |
| Van Dorn Street                    | 3   | 4   |
| Van Ness-UDC                       | 2   | 3   |
| Vienna                             | 4   | 2   |
| Virginia Square-GMU                | 3   | 4   |
| Waterfront                         | 1   | 2   |
| West Falls Church                  | 0   | 3   |
| West Hyattsville                   | 3   | 0   |
| Wheaton                            | 2   | 2   |
| White Flint                        | 3   | 4   |
| Wiehle                             | 1   | 1   |
| Woodley Park-Zoo                   | 2   | 3   |

|                        | Wheaton | White Flint | Wiehle | \ |
|------------------------|---------|-------------|--------|---|
| Addison Road           | 2       | 3           | 1      |   |
| Anacostia              | 3       | 4           | 1      |   |
| Archives-Navy Memorial | 2       | 2           | 1      |   |
| Arlington Cemetery     | 0       | 1           | 1      |   |
| Ballston               | 3       | 4           | 1      |   |
| Benning Road           | 3       | 4           | 1      |   |
| Bethesda               | 3       | 4           | 1      |   |

|                                    |     |     |     |
|------------------------------------|-----|-----|-----|
| Braddock Road                      | 2   | 3   | 0   |
| Branch Avenue                      | 3   | 4   | 1   |
| Brookland                          | 2   | 3   | 0   |
| Capitol Heights                    | 2   | 3   | 1   |
| Capitol South                      | 3   | 3   | 1   |
| Cheverly                           | 3   | 3   | 1   |
| Clarendon                          | 1   | 3   | 1   |
| Cleveland Park                     | 2   | 3   | 1   |
| College Park-U of MD               | 1   | 3   | 1   |
| Columbia Heights                   | 2   | 4   | 0   |
| Congress Heights                   | 2   | 2   | 0   |
| Court House                        | 3   | 4   | 1   |
| Crystal City                       | 1   | 2   | 0   |
| Deanwood                           | 3   | 4   | 1   |
| Dunn Loring                        | 3   | 2   | 1   |
| Dupont Circle                      | 3   | 1   | 0   |
| East Falls Church                  | 1   | 2   | 1   |
| Eastern Market                     | 3   | 3   | 1   |
| Eisenhower Avenue                  | 2   | 3   | 1   |
| Farragut North                     | 1   | 0   | 0   |
| Farragut West                      | 2   | 2   | 0   |
| Federal Center SW                  | 2   | 3   | 1   |
| Federal Triangle                   | 1   | 0   | 0   |
| ...                                | ... | ... | ... |
| Prince George's Plaza              | 3   | 4   | 1   |
| Reagan Washington National Airport | 3   | 3   | 1   |
| Rhode Island Avenue                | 2   | 2   | 1   |
| Rockville                          | 2   | 2   | 1   |
| Rosslyn                            | 1   | 3   | 1   |
| Shady Grove                        | 2   | 3   | 1   |
| Shaw-Howard University             | 1   | 1   | 2   |
| Silver Spring                      | 2   | 4   | 1   |
| Smithsonian                        | 2   | 1   | 0   |
| Southern Avenue                    | 1   | 2   | 0   |
| Spring Hill                        | 1   | 1   | 1   |
| Stadium-Armory                     | 3   | 4   | 1   |
| Suitland                           | 1   | 1   | 0   |
| Takoma                             | 2   | 3   | 1   |
| Tenleytown-AU                      | 1   | 3   | 1   |
| Twinbrook                          | 3   | 3   | 1   |
| Tysons Corner                      | 1   | 1   | 1   |
| U Street-Cardozo                   | 2   | 4   | 1   |
| Union Station                      | 2   | 2   | 1   |
| Van Dorn Street                    | 2   | 3   | 1   |
| Van Ness-UDC                       | 2   | 3   | 1   |
| Vienna                             | 0   | 3   | 1   |
| Virginia Square-GMU                | 3   | 4   | 0   |
| Waterfront                         | 2   | 2   | 1   |

|                   |   |   |   |
|-------------------|---|---|---|
| West Falls Church | 2 | 3 | 1 |
| West Hyattsville  | 2 | 4 | 1 |
| Wheaton           | 0 | 3 | 1 |
| White Flint       | 3 | 0 | 1 |
| Wiehle            | 1 | 1 | 0 |
| Woodley Park-Zoo  | 1 | 3 | 1 |

Woodley Park-Zoo

|                                    |     |
|------------------------------------|-----|
| Addison Road                       | 1   |
| Anacostia                          | 3   |
| Archives-Navy Memorial             | 3   |
| Arlington Cemetery                 | 2   |
| Ballston                           | 3   |
| Benning Road                       | 2   |
| Bethesda                           | 3   |
| Braddock Road                      | 4   |
| Branch Avenue                      | 3   |
| Brookland                          | 4   |
| Capitol Heights                    | 3   |
| Capitol South                      | 3   |
| Cheverly                           | 3   |
| Clarendon                          | 4   |
| Cleveland Park                     | 3   |
| College Park-U of MD               | 2   |
| Columbia Heights                   | 3   |
| Congress Heights                   | 1   |
| Court House                        | 3   |
| Crystal City                       | 3   |
| Deanwood                           | 2   |
| Dunn Loring                        | 2   |
| Dupont Circle                      | 3   |
| East Falls Church                  | 4   |
| Eastern Market                     | 3   |
| Eisenhower Avenue                  | 4   |
| Farragut North                     | 2   |
| Farragut West                      | 2   |
| Federal Center SW                  | 3   |
| Federal Triangle                   | 0   |
| ...                                | ... |
| Prince George's Plaza              | 3   |
| Reagan Washington National Airport | 2   |
| Rhode Island Avenue                | 2   |
| Rockville                          | 2   |
| Rosslyn                            | 3   |
| Shady Grove                        | 2   |
| Shaw-Howard University             | 2   |
| Silver Spring                      | 2   |
| Smithsonian                        | 2   |

|                     |   |
|---------------------|---|
| Southern Avenue     | 1 |
| Spring Hill         | 1 |
| Stadium-Armory      | 3 |
| Suitland            | 1 |
| Takoma              | 1 |
| Tenleytown-AU       | 2 |
| Twinbrook           | 2 |
| Tysons Corner       | 1 |
| U Street-Cardozo    | 3 |
| Union Station       | 3 |
| Van Dorn Street     | 1 |
| Van Ness-UDC        | 4 |
| Vienna              | 2 |
| Virginia Square-GMU | 2 |
| Waterfront          | 3 |
| West Falls Church   | 2 |
| West Hyattsville    | 3 |
| Wheaton             | 1 |
| White Flint         | 3 |
| Wiehle              | 1 |
| Woodley Park-Zoo    | 0 |

[91 rows x 91 columns]

```
In [26]: di_matrix.to_excel('../distance_matrix_am_peak.xlsx', sheet_name='Sheet1')
```

```
In [ ]:
```