

The Ithaka Group  
**PORTFOLIO APPRAISAL**  
*North Carolina Retirement System*  
**North Carolina Department of State Treasurer**  
June 30, 2016

| Quantity                    | Security                        | Unit<br>Cost | Total<br>Cost        | Price    | Market<br>Value      | Pct.<br>Assets | Cur.<br>Yield |
|-----------------------------|---------------------------------|--------------|----------------------|----------|----------------------|----------------|---------------|
| <b>CASH AND EQUIVALENTS</b> |                                 |              |                      |          |                      |                |               |
|                             | BNY MELLON MMF                  |              | 123,954.93           |          | 123,954.93           | 0.7            | 0.0           |
|                             | Dividend Accruals               |              | 741.12               |          | 741.12               | 0.0            | 0.0           |
|                             |                                 |              | 124,696.05           |          | 124,696.05           | 0.7            | 0.0           |
| <b>COMMON STOCK</b>         |                                 |              |                      |          |                      |                |               |
| 6,126.0000                  | Adobe Systems Inc.              | 87.71        | 537,302.70           | 95.79    | 586,809.54           | 3.2            | 0.0           |
| 3,582.0000                  | Alexion Pharmaceuticals         | 129.33       | 463,253.83           | 116.76   | 418,234.32           | 2.3            | 0.0           |
| 1,226.0000                  | Alphabet Inc. Class C           | 634.09       | 777,393.91           | 692.10   | 848,514.60           | 4.6            | 0.0           |
| 1,372.0000                  | Amazon.com Inc.                 | 304.75       | 418,112.61           | 715.62   | 981,830.64           | 5.3            | 0.0           |
| 1,570.0000                  | Baidu, Inc. ADS                 | 228.07       | 358,069.74           | 165.15   | 259,285.50           | 1.4            | 0.0           |
| 1,568.0000                  | BioMarin<br>Pharmaceutical      | 124.55       | 195,297.07           | 77.80    | 121,990.40           | 0.7            | 0.0           |
| 655.0000                    | Biogen Inc.                     | 377.68       | 247,380.96           | 241.82   | 158,392.10           | 0.9            | 0.0           |
| 6,677.0000                  | Celgene Corp.                   | 78.01        | 520,847.32           | 98.63    | 658,552.51           | 3.6            | 0.0           |
| 1,780.0000                  | Domino's Pizza, Inc.            | 109.44       | 194,799.64           | 131.38   | 233,856.40           | 1.3            | 1.2           |
| 2,455.0000                  | Edwards Lifesciences<br>Corp.   | 105.82       | 259,790.16           | 99.73    | 244,837.15           | 1.3            | 0.0           |
| 12,758.0000                 | Facebook, Inc. cl A             | 41.56        | 530,178.77           | 114.28   | 1,457,984.24         | 7.9            | 0.0           |
| 1,395.0000                  | Home Depot Inc.                 | 135.64       | 189,221.99           | 127.69   | 178,127.55           | 1.0            | 2.2           |
| 3,081.0000                  | Illumina Inc                    | 189.39       | 583,499.36           | 140.38   | 432,510.78           | 2.3            | 0.0           |
| 2,197.0000                  | Incyte Corp                     | 87.40        | 192,022.42           | 79.98    | 175,716.06           | 0.9            | 0.0           |
| 1,686.0000                  | LinkedIn Corp cl A              | 216.79       | 365,507.83           | 189.25   | 319,075.50           | 1.7            | 0.0           |
| 8,450.0000                  | Mastercard Inc.                 | 54.55        | 460,972.85           | 88.06    | 744,107.00           | 4.0            | 0.9           |
| 3,550.0000                  | Middleby Corporation            | 84.56        | 300,184.17           | 115.25   | 409,137.50           | 2.2            | 0.0           |
| 4,632.0000                  | Nike Inc cl B                   | 64.53        | 298,922.11           | 55.20    | 255,686.40           | 1.4            | 1.2           |
| 670.0000                    | O'Reilly Automotive,<br>Inc.    | 255.47       | 171,167.24           | 271.10   | 181,637.00           | 1.0            | 0.0           |
| 2,866.0000                  | Palo Alto Networks, Inc.        | 162.76       | 466,468.28           | 122.64   | 351,486.24           | 1.9            | 0.0           |
| 10,542.0000                 | PayPal Holdings, Inc.           | 38.67        | 407,668.63           | 36.51    | 384,888.42           | 2.1            | 0.0           |
| 1,721.0000                  | Regeneron<br>Pharmaceuticals    | 287.18       | 494,240.48           | 349.23   | 601,024.83           | 3.2            | 0.0           |
| 13,833.0000                 | Salesforce.com Inc              | 47.74        | 660,439.62           | 79.41    | 1,098,478.53         | 5.9            | 0.0           |
| 6,155.0000                  | Splunk Inc.                     | 43.57        | 268,164.60           | 54.18    | 333,477.90           | 1.8            | 0.0           |
| 19,570.0000                 | Starbucks Corporation           | 32.66        | 639,195.58           | 57.12    | 1,117,838.40         | 6.0            | 1.4           |
| 6,256.0000                  | TJX Companies Inc.              | 68.08        | 425,929.12           | 77.23    | 483,150.88           | 2.6            | 1.3           |
| 755.0000                    | The Priceline Group Inc.        | 707.95       | 534,502.25           | 1,248.41 | 942,549.55           | 5.1            | 0.0           |
| 2,145.0000                  | Transdigm Group, Inc.           | 123.35       | 264,580.94           | 263.69   | 565,615.05           | 3.1            | 0.0           |
| 4,387.0000                  | Ulta Salon, Cosmetics           | 161.68       | 709,280.51           | 243.64   | 1,068,848.68         | 5.8            | 0.0           |
| 1,531.0000                  | Ultimate Software<br>Group Inc. | 178.81       | 273,764.55           | 210.29   | 321,953.99           | 1.7            | 0.0           |
| 8,529.0000                  | Under Armour, Inc. Cl<br>A      | 14.90        | 127,109.77           | 40.13    | 342,268.77           | 1.9            | 0.0           |
| 8,589.5388                  | Under Armour, Inc. Cl<br>C      | 14.42        | 123,847.33           | 36.40    | 312,659.21           | 1.7            | 0.0           |
| 13,678.0000                 | VISA Inc.                       | 47.81        | 653,877.71           | 74.17    | 1,014,497.26         | 5.5            | 0.8           |
| 4,799.0000                  | Walt Disney Company             | 91.54        | 439,316.01           | 97.82    | 469,438.18           | 2.5            | 1.5           |
| 4,040.0000                  | Workday, Inc.                   | 76.31        | 308,307.33           | 74.67    | 301,666.80           | 1.6            | 0.0           |
|                             |                                 |              | 13,860,617.39        |          | 18,376,127.88        | 99.3           | 0.3           |
| <b>TOTAL PORTFOLIO</b>      |                                 |              | <b>13,985,313.44</b> |          | <b>18,500,823.93</b> | <b>100.0</b>   | <b>0.3</b>    |

The Ithaka Group  
**PERFORMANCE HISTORY**  
**NET OF FEES**  
*North Carolina Retirement System*  
*From 05-02-13 to 06-30-16*

| Time Period         |    |            | Percent Return |                           |                           |         | Cumulative TWR |        |        |        |
|---------------------|----|------------|----------------|---------------------------|---------------------------|---------|----------------|--------|--------|--------|
|                     |    |            | Portfolio      | Per Period                |                           | S&P 500 | Basis = 100    |        |        |        |
|                     |    |            |                | Russell<br>1000<br>Growth | Russell<br>3000<br>Growth |         |                |        |        |        |
| 05-02-2013          | to | 05-02-2013 |                |                           |                           |         | 100.00         | 100.00 | 100.00 | 100.00 |
| 05-02-2013          | to | 05-31-2013 | 1.82           | 1.69                      | 2.00                      | 2.08    | 101.82         | 101.69 | 102.00 | 102.08 |
| 05-31-2013          | to | 06-30-2013 | -2.21          | -1.88                     | -1.78                     | -1.50   | 99.57          | 99.78  | 100.18 | 100.54 |
| 06-30-2013          | to | 07-31-2013 | 7.69           | 5.30                      | 5.48                      | 4.95    | 107.22         | 105.07 | 105.68 | 105.52 |
| 07-31-2013          | to | 08-31-2013 | 1.83           | -1.71                     | -1.73                     | -3.13   | 109.19         | 103.27 | 103.84 | 102.21 |
| 08-31-2013          | to | 09-30-2013 | 8.56           | 4.46                      | 4.66                      | 2.97    | 118.53         | 107.87 | 108.68 | 105.26 |
| 09-30-2013          | to | 10-31-2013 | 2.80           | 4.42                      | 4.21                      | 4.46    | 121.85         | 112.64 | 113.26 | 109.95 |
| 10-31-2013          | to | 11-30-2013 | 3.28           | 2.82                      | 2.92                      | 2.80    | 125.84         | 115.82 | 116.57 | 113.03 |
| 11-30-2013          | to | 12-31-2013 | 2.75           | 2.86                      | 2.79                      | 2.36    | 129.30         | 119.13 | 119.82 | 115.70 |
| 12-31-2013          | to | 01-31-2014 | -1.21          | -2.85                     | -2.76                     | -3.56   | 127.74         | 115.73 | 116.51 | 111.58 |
| 01-31-2014          | to | 02-28-2014 | 6.81           | 5.15                      | 5.12                      | 4.31    | 136.44         | 121.69 | 122.48 | 116.39 |
| 02-28-2014          | to | 03-31-2014 | -7.00          | -1.01                     | -1.13                     | 0.69    | 126.88         | 120.46 | 121.10 | 117.20 |
| 03-31-2014          | to | 04-30-2014 | -5.12          | 0.00                      | -0.41                     | 0.62    | 120.39         | 120.47 | 120.61 | 117.92 |
| 04-30-2014          | to | 05-31-2014 | 2.87           | 3.12                      | 2.95                      | 2.10    | 123.85         | 124.22 | 124.16 | 120.40 |
| 05-31-2014          | to | 06-30-2014 | 2.94           | 1.95                      | 2.27                      | 1.91    | 127.49         | 126.64 | 126.98 | 122.70 |
| 06-30-2014          | to | 07-31-2014 | 0.37           | -1.53                     | -1.89                     | -1.51   | 127.96         | 124.70 | 124.58 | 120.85 |
| 07-31-2014          | to | 08-31-2014 | 5.38           | 4.58                      | 4.66                      | 3.77    | 134.85         | 130.42 | 130.39 | 125.40 |
| 08-31-2014          | to | 09-30-2014 | -2.44          | -1.45                     | -1.75                     | -1.55   | 131.56         | 128.53 | 128.11 | 123.45 |
| 09-30-2014          | to | 10-31-2014 | 3.03           | 2.64                      | 2.90                      | 2.32    | 135.55         | 131.91 | 131.82 | 126.32 |
| 10-31-2014          | to | 11-30-2014 | 1.56           | 3.17                      | 2.98                      | 2.45    | 137.66         | 136.09 | 135.74 | 129.42 |
| 11-30-2014          | to | 12-31-2014 | -1.83          | -1.04                     | -0.75                     | -0.42   | 135.14         | 134.67 | 134.73 | 128.88 |
| 12-31-2014          | to | 01-31-2015 | 0.72           | -1.53                     | -1.59                     | -3.10   | 136.12         | 132.61 | 132.59 | 124.87 |
| 01-31-2015          | to | 02-28-2015 | 8.35           | 6.67                      | 6.71                      | 5.49    | 147.49         | 141.45 | 141.48 | 131.73 |
| 02-28-2015          | to | 03-31-2015 | -1.45          | -1.14                     | -0.92                     | -1.74   | 145.36         | 139.84 | 140.18 | 129.44 |
| 03-31-2015          | to | 04-30-2015 | -0.32          | 0.50                      | 0.23                      | 0.85    | 144.89         | 140.54 | 140.51 | 130.54 |
| 04-30-2015          | to | 05-31-2015 | 0.28           | 1.41                      | 1.58                      | 1.05    | 145.30         | 142.52 | 142.73 | 131.91 |
| 05-31-2015          | to | 06-30-2015 | 1.24           | -1.76                     | -1.52                     | -2.10   | 147.10         | 140.01 | 140.56 | 129.14 |
| 06-30-2015          | to | 07-31-2015 | 5.21           | 3.39                      | 3.14                      | 1.97    | 154.76         | 144.76 | 144.98 | 131.69 |
| 07-31-2015          | to | 08-31-2015 | -6.87          | -6.07                     | -6.19                     | -6.26   | 144.14         | 135.97 | 136.00 | 123.45 |
| 08-31-2015          | to | 09-30-2015 | -2.66          | -2.47                     | -2.78                     | -2.64   | 140.30         | 132.60 | 132.22 | 120.18 |
| 09-30-2015          | to | 10-31-2015 | 9.66           | 8.61                      | 8.39                      | 8.30    | 153.86         | 144.02 | 143.31 | 130.16 |
| 10-31-2015          | to | 11-30-2015 | -0.14          | 0.28                      | 0.53                      | 0.05    | 153.65         | 144.43 | 144.07 | 130.22 |
| 11-30-2015          | to | 12-31-2015 | -1.13          | -1.47                     | -1.72                     | -1.75   | 151.91         | 142.31 | 141.59 | 127.94 |
| 12-31-2015          | to | 01-31-2016 | -8.77          | -5.58                     | -5.97                     | -5.07   | 138.59         | 134.36 | 133.13 | 121.45 |
| 01-31-2016          | to | 02-29-2016 | -4.20          | -0.04                     | -0.09                     | -0.41   | 132.77         | 134.31 | 133.01 | 120.95 |
| 02-29-2016          | to | 03-31-2016 | 5.42           | 6.74                      | 6.81                      | 6.60    | 139.97         | 143.36 | 142.07 | 128.93 |
| 03-31-2016          | to | 04-30-2016 | 0.51           | -0.91                     | -0.78                     | 0.27    | 140.68         | 142.05 | 140.96 | 129.28 |
| 04-30-2016          | to | 05-31-2016 | 2.33           | 1.94                      | 2.00                      | 1.53    | 143.95         | 144.81 | 143.78 | 131.26 |
| 05-31-2016          | to | 06-30-2016 | -2.94          | -0.39                     | -0.40                     | 0.09    | 139.72         | 144.24 | 143.20 | 131.38 |
| <b>Date to Date</b> |    |            |                |                           |                           |         |                |        |        |        |
| 05-02-2013          | to | 06-30-2016 | 39.72          | 44.24                     | 43.20                     | 31.38   |                |        |        |        |
| Annualized          |    |            | 11.16          | 12.29                     | 12.03                     | 9.02    |                |        |        |        |

The Ithaka Group  
**PERFORMANCE HISTORY**  
**GROSS OF FEES**  
*North Carolina Retirement System*  
*From 05-02-13 to 06-30-16*

| Time Period              |    |            | Percent Return |                           |                           |         | Cumulative TWR |        |        |        |
|--------------------------|----|------------|----------------|---------------------------|---------------------------|---------|----------------|--------|--------|--------|
|                          |    |            | Portfolio      | Russell<br>1000<br>Growth | Russell<br>3000<br>Growth | S&P 500 | Basis = 100    |        |        |        |
| 05-02-2013 to 05-02-2013 |    |            |                |                           |                           |         | 100.00         | 100.00 | 100.00 | 100.00 |
| 05-02-2013               | to | 05-31-2013 | 1.82           | 1.69                      | 2.00                      | 2.08    | 101.82         | 101.69 | 102.00 | 102.08 |
| 05-31-2013               | to | 06-30-2013 | -2.21          | -1.88                     | -1.78                     | -1.50   | 99.57          | 99.78  | 100.18 | 100.54 |
| 06-30-2013               | to | 07-31-2013 | 7.78           | 5.30                      | 5.48                      | 4.95    | 107.32         | 105.07 | 105.68 | 105.52 |
| 07-31-2013               | to | 08-31-2013 | 1.83           | -1.71                     | -1.73                     | -3.13   | 109.28         | 103.27 | 103.84 | 102.21 |
| 08-31-2013               | to | 09-30-2013 | 8.60           | 4.46                      | 4.66                      | 2.97    | 118.68         | 107.87 | 108.68 | 105.26 |
| 09-30-2013               | to | 10-31-2013 | 2.94           | 4.42                      | 4.21                      | 4.46    | 122.17         | 112.64 | 113.26 | 109.95 |
| 10-31-2013               | to | 11-30-2013 | 3.28           | 2.82                      | 2.92                      | 2.80    | 126.18         | 115.82 | 116.57 | 113.03 |
| 11-30-2013               | to | 12-31-2013 | 2.75           | 2.86                      | 2.79                      | 2.36    | 129.64         | 119.13 | 119.82 | 115.70 |
| 12-31-2013               | to | 01-31-2014 | -1.07          | -2.85                     | -2.76                     | -3.56   | 128.26         | 115.73 | 116.51 | 111.58 |
| 01-31-2014               | to | 02-28-2014 | 6.81           | 5.15                      | 5.12                      | 4.31    | 137.00         | 121.69 | 122.48 | 116.39 |
| 02-28-2014               | to | 03-31-2014 | -7.00          | -1.01                     | -1.13                     | 0.69    | 127.41         | 120.46 | 121.10 | 117.20 |
| 03-31-2014               | to | 04-30-2014 | -4.97          | 0.00                      | -0.41                     | 0.62    | 121.07         | 120.47 | 120.61 | 117.92 |
| 04-30-2014               | to | 05-31-2014 | 2.87           | 3.12                      | 2.95                      | 2.10    | 124.55         | 124.22 | 124.16 | 120.40 |
| 05-31-2014               | to | 06-30-2014 | 2.94           | 1.95                      | 2.27                      | 1.91    | 128.21         | 126.64 | 126.98 | 122.70 |
| 06-30-2014               | to | 07-31-2014 | 0.51           | -1.53                     | -1.89                     | -1.51   | 128.87         | 124.70 | 124.58 | 120.85 |
| 07-31-2014               | to | 08-31-2014 | 5.38           | 4.58                      | 4.66                      | 3.77    | 135.81         | 130.42 | 130.39 | 125.40 |
| 08-31-2014               | to | 09-30-2014 | -2.44          | -1.45                     | -1.75                     | -1.55   | 132.49         | 128.53 | 128.11 | 123.45 |
| 09-30-2014               | to | 10-31-2014 | 3.18           | 2.64                      | 2.90                      | 2.32    | 136.71         | 131.91 | 131.82 | 126.32 |
| 10-31-2014               | to | 11-30-2014 | 1.56           | 3.17                      | 2.98                      | 2.45    | 138.84         | 136.09 | 135.74 | 129.42 |
| 11-30-2014               | to | 12-31-2014 | -1.83          | -1.04                     | -0.75                     | -0.42   | 136.30         | 134.67 | 134.73 | 128.88 |
| 12-31-2014               | to | 01-31-2015 | 0.87           | -1.53                     | -1.59                     | -3.10   | 137.48         | 132.61 | 132.59 | 124.87 |
| 01-31-2015               | to | 02-28-2015 | 8.35           | 6.67                      | 6.71                      | 5.49    | 148.97         | 141.45 | 141.48 | 131.73 |
| 02-28-2015               | to | 03-31-2015 | -1.39          | -1.14                     | -0.92                     | -1.74   | 146.89         | 139.84 | 140.18 | 129.44 |
| 03-31-2015               | to | 04-30-2015 | -0.32          | 0.50                      | 0.23                      | 0.85    | 146.42         | 140.54 | 140.51 | 130.54 |
| 04-30-2015               | to | 05-31-2015 | 0.28           | 1.41                      | 1.58                      | 1.05    | 146.83         | 142.52 | 142.73 | 131.91 |
| 05-31-2015               | to | 06-30-2015 | 1.44           | -1.76                     | -1.52                     | -2.10   | 148.95         | 140.01 | 140.56 | 129.14 |
| 06-30-2015               | to | 07-31-2015 | 5.21           | 3.39                      | 3.14                      | 1.97    | 156.71         | 144.76 | 144.98 | 131.69 |
| 07-31-2015               | to | 08-31-2015 | -6.87          | -6.07                     | -6.19                     | -6.26   | 145.95         | 135.97 | 136.00 | 123.45 |
| 08-31-2015               | to | 09-30-2015 | -2.45          | -2.47                     | -2.78                     | -2.64   | 142.37         | 132.60 | 132.22 | 120.18 |
| 09-30-2015               | to | 10-31-2015 | 9.81           | 8.61                      | 8.39                      | 8.30    | 156.33         | 144.02 | 143.31 | 130.16 |
| 10-31-2015               | to | 11-30-2015 | -0.14          | 0.28                      | 0.53                      | 0.05    | 156.12         | 144.43 | 144.07 | 130.22 |
| 11-30-2015               | to | 12-31-2015 | -1.07          | -1.47                     | -1.72                     | -1.75   | 154.45         | 142.31 | 141.59 | 127.94 |
| 12-31-2015               | to | 01-31-2016 | -8.62          | -5.58                     | -5.97                     | -5.07   | 141.13         | 134.36 | 133.13 | 121.45 |
| 01-31-2016               | to | 02-29-2016 | -4.13          | -0.04                     | -0.09                     | -0.41   | 135.30         | 134.31 | 133.01 | 120.95 |
| 02-29-2016               | to | 03-31-2016 | 5.42           | 6.74                      | 6.81                      | 6.60    | 142.63         | 143.36 | 142.07 | 128.93 |
| 03-31-2016               | to | 04-30-2016 | 0.65           | -0.91                     | -0.78                     | 0.27    | 143.55         | 142.05 | 140.96 | 129.28 |
| 04-30-2016               | to | 05-31-2016 | 2.33           | 1.94                      | 2.00                      | 1.53    | 146.89         | 144.81 | 143.78 | 131.26 |
| 05-31-2016               | to | 06-30-2016 | -2.88          | -0.39                     | -0.40                     | 0.09    | 142.66         | 144.24 | 143.20 | 131.38 |
| <b>Date to Date</b>      |    |            |                |                           |                           |         |                |        |        |        |
| 05-02-2013               | to | 06-30-2016 | 42.66          | 44.24                     | 43.20                     | 31.38   |                |        |        |        |

The Ithaka Group  
**TRANSACTION SUMMARY**  
*North Carolina Retirement System*  
**North Carolina Department of State Treasurer**  
*From 06-01-2016 To 06-30-2016*

| Tran<br>Code | Security             | Trade<br>Date | Settle<br>Date                                | Quantity   | Close<br>Meth. | S/D<br>Type | S/D<br>Symbol | Trade<br>Amount | Lot |
|--------------|----------------------|---------------|-----------------------------------------------|------------|----------------|-------------|---------------|-----------------|-----|
| dp           | Management Fee       | 06-01-2016    | 06-01-2016                                    |            |                | awus        | client        | 10,799.80       |     |
| wd           | Dividend Accruals    | 06-02-2016    | 06-02-2016                                    |            |                | caus        | BNYMMF        | 1,626.56        |     |
| by           | Incyte Corp          | 06-02-2016    | 06-07-2016                                    | 2,197.0000 |                | caus        | BNYMMF        | 192,022.42      | 1   |
| sl           | TripAdvisor, Inc.    | 06-02-2016    | 06-07-2016                                    | 2,125.0000 | f              | caus        | BNYMMF        | 143,982.82      | 1   |
| sl           | TripAdvisor, Inc.    | 06-02-2016    | 06-07-2016                                    | 1,605.0000 | f              | caus        | BNYMMF        | 108,749.37      | 2   |
| in           | BNY MELLON MMF       | 06-02-2016    | 06-02-2016                                    |            |                | caus        | BNYMMF        | 51.20           |     |
| dv           | Nike Inc cl B        | 06-02-2016    | 07-05-2016                                    |            |                | caus        | divacc        | 741.12          |     |
| wd           | Dividend Accruals    | 06-07-2016    | 06-07-2016                                    |            |                | caus        | BNYMMF        | 1,914.92        |     |
|              |                      | 904311206     | Paid a stock dividend: received 57.8910shares |            |                |             |               |                 |     |
|              |                      | 904311206     | Paid a stock dividend: received 1.0650shares  |            |                |             |               |                 |     |
|              |                      | 904311206     | Paid a stock dividend: received 1.5830shares  |            |                |             |               |                 |     |
| dv           | Domino's Pizza, Inc. | 06-13-2016    | 06-30-2016                                    |            |                | caus        | divacc        | 676.40          |     |
| wd           | Dividend Accruals    | 06-16-2016    | 06-16-2016                                    |            |                | caus        | BNYMMF        | 962.55          |     |
| wd           | Dividend Accruals    | 06-30-2016    | 06-30-2016                                    |            |                | caus        | BNYMMF        | 676.40          |     |