| BLACKROCK MUNIYIELD NEW JERSEY FUND, INC. Form N-Q June 22, 2015 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UNITED STATES |
| SECURITIES AND EXCHANGE COMMISSION |
| Washington, D.C. 20549 |
| FORM N-Q |
| QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY |
| Investment Company Act file number 811-06570 |
| Name of Fund: BlackRock MuniYield New Jersey Fund, Inc. (MYJ) |
| Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809 |
| Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock MuniYield New Jersey Fund, Inc., 55 East 52 nd Street, New York, NY 10055 |
| Registrant's telephone number, including area code: (800) 882-0052, Option 4 |
| Date of fiscal year end: 07/31/2015 |
| Date of reporting period: 04/30/2015 |

Item 1 – Schedule of Investments

Schedule of Investments April 30, 2015 (Unaudited) BlackRock MuniYield New Jersey Fund, Inc. (MYJ) (Percentages shown are based on Net Assets)

| Municipal Bonds | | Par (000) | Value |
|----------------------------------------------------------------------------------------------------------------------------------|-------|--------------|-------------|
| New Jersey — 129.0% | | | |
| Corporate — 10.7% | | | |
| County of Salem New Jersey Pollution Control Financing Authority, Refunding RB, Atlantic City Electric, Series A, 4.88%, 6/01/29 | 3 (| \$4,550 | \$4,996,036 |
| Middlesex County Improvement Authority, RB, Senior Heldrich Center Hotel, Series A, 5.00%, 1/01/20 | | 655 | 517,005 |
| New Jersey EDA, RB, Continental Airlines, Inc. Project, AMT: | | | |
| Series A, 5.63%, 11/15/30 | | 1,730 | 1,975,539 |
| Series B, 5.63%, 11/15/30 | | 485 | 544,893 |
| New Jersey EDA, Refunding RB: | | | |
| New Jersey American Water Co., Inc. Project, Series A, AMT, 5.70%, 10/01/3 | 39 | 7,900 | 9,055,691 |
| New Jersey American Water Co., Inc. Project, Series B, AMT, 5.60%, 11/01/3 | 34 | 2,430 | 2,744,369 |
| United Water of New Jersey, Inc., Series B (AMBAC), 4.50%, 11/01/25 | | 4,500 | 4,908,330 |
| | | | 24,741,863 |
| County/City/Special District/School District — 17.2% | | | |
| Casino Reinvestment Development Authority, Refunding RB: | | | |
| 5.25%, 11/01/39 | | 2,280 | 2,420,083 |
| 5.25%, 11/01/44 | | 5,000 | 5,335,200 |
| City of Margate New Jersey, GO, Refunding, Improvement: | | 1.200 | 1 2 12 100 |
| 5.00%, 1/15/26 | | 1,200 | 1,343,400 |
| 5.00%, 1/15/27 | | 845 | 939,944 |
| City of Perth Amboy, GO, Refunding(AGM): | | 020 | 006 154 |
| 5.00%, 7/01/17 (a) | | 820 | 896,154 |
| 5.00%, 7/01/33 County of Essay New Jarsey Improvement Authority Refunding RR. Project | | 755 | 786,136 |
| County of Essex New Jersey Improvement Authority, Refunding RB, Project Consolidation (NPFGC): | | | |
| 5.50%, 10/01/28 | | 2,700 | 3,447,981 |
| 5.50%, 10/01/28 | | 5,085 | 6,522,682 |
| County of Gloucester New Jersey Improvement Authority, RB, County Guaran | teed | 3,003 | 0,322,062 |
| Loan—County Capital Program, 5.00%, 4/01/38 | iccu | 1,000 | 1,089,040 |
| Boun County Capital Program, 3.00%, 1101730 | | | |
| | | | |
| W. C. ID. I | Par | 3 7 1 | |
| Municipal Bonds | (000) |) Val | ue |
| New Jersey (continued) | | | |
| County/City/Special District/School District (concluded) | | | |
| County of Hudson New Jersey, COP, Refunding, (NPFGC), 6.25%, 12/01/16\$ | 1,500 | \$1,6 | 14,300 |
| County of Hudson New Jersey Improvement Authority, RB, Harrison | 4,800 | 5 2 | 20.688 |
| Parking Facility Project, Series C (AGC), 5.38%, 1/01/44 | 4,000 |) 5,5. | 30,688 |
| County of Union New Jersey Improvement Authority, LRB, Guaranteed | 1,650 |) 1 & | 41,582 |
| Lease, Family Court Building Project, 5.00%, 5/01/42 | 1,00 | , 1,0 | 11,502 |
| County of Union New Jersey Utilities Authority, Refunding RB, Series A: | | | |
| Resources Recovery Facility, Covanta Union, Inc., AMT, 5.25%, 12/01/31 | 670 | 731 | ,412 |

| Solid Waste System, County Deficiency Agreement, 5.00%, 6/15/41 | 4,115 | 4,586,867 |
|---------------------------------------------------------------------|-------|------------|
| Monmouth County Improvement Authority, Refunding RB, Government | | |
| Loan (AMBAC): | | |
| 5.00%, 12/01/15 | 5 | 5,018 |
| 5.00%, 12/01/16 | 5 | 5,016 |
| Monroe Township Board of Middlesex Education, GO, Refunding, 5.00%, | 1,625 | 1,848,031 |
| 3/01/38 | 1,023 | 1,040,031 |
| New Jersey EDA, RB, The Goethals Bridge Replacement Project, AMT | 1,000 | 1,112,470 |
| (AGM), 5.00%, 1/01/31 | 1,000 | 1,112,470 |
| | | 39,856,004 |
| Education — 27.9% | | |
| New Jersey EDA, RB: | | |
| MSU Student Housing Project Provide, 5.75%, 6/01/31 | 1,000 | 1,120,780 |
| MSU Student Housing Project Provide, 5.88%, 6/01/42 | 1,500 | 1,676,085 |
| Series A, 6.20%, 10/01/44 | 235 | 242,424 |
| Series A, 6.30%, 10/01/49 | 375 | 386,768 |
| The Team Academy Charter School Project, 6.00%, 10/01/33 | 2,835 | 3,239,016 |
| New Jersey EDA, Refunding RB, Series A (b): | | |
| 5.88%, 8/01/44 | 780 | 805,771 |
| 6.00%, 8/01/49 | 555 | 572,227 |

Schedule of Investments (continued) BlackRock MuniYield New Jersey Fund, Inc. (MYJ) (Percentages shown are based on Net Assets)

| Municipal Bonds | Par (000) | Value |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------|
| New Jersey (continued) | | |
| Education (continued) | | |
| New Jersey Educational Facilities Authority, RB: | | |
| Higher Educational Capital Improvement Fund, Series A, 5.00%, 9/01/32 | | |
| Montclair State University, Series J, 5.25%, 7/01/38 | 1,140 | 1,256,725 |
| New Jersey Educational Facilities Authority, Refunding RB: | | |
| College of New Jersey, Series D (AGM), 5.00%, 7/01/35 | 6,115 | 6,718,122 |
| Georgian Court University, Series D, 5.25%, 7/01/37 | 1,000 | 1,063,370 |
| Kean University, Series A, 5.50%, 9/01/36 | 4,500 | 5,125,455 |
| Montclaire State University, Series A, 5.00%, 7/01/44 | 6,790 | 7,628,022 |
| New Jersey Institute of Technology, Series H, 5.00%, 7/01/31 | 1,250 | 1,405,788 |
| Ramapo College, Series B, 5.00%, 7/01/42 | 340 | 371,175 |
| Rider University, Series A, 5.00%, 7/01/32 | 1,000 | 1,072,210 |
| Rowan University, Series B (AGC), 5.00%, 7/01/24 | 1,800 | 2,000,538 |
| Seton Hall University, Series D, 5.00%, 7/01/38 | 395 | 435,436 |
| University of Medicine & Dentistry, Series B, 7.13%, 6/01/19 (a) | 1,300 | 1,603,589 |
| University of Medicine & Dentistry, Series B, 7.50%, 6/01/19 (a) | 1,625 | 2,028,683 |
| New Jersey Higher Education Student Assistance Authority, Refunding RB: | | 4 450 500 |
| Series 1, AMT, 5.75%, 12/01/29 | 4,045 | 4,458,520 |
| Series 1A, 5.00%, 12/01/25 | 840 | 887,972 |
| Series 1A, 5.00%, 12/01/26 | 530 | 559,086 |
| Series 1A, 5.25%, 12/01/32 | 900 | 971,316 |
| New Jersey Institute of Technology, RB, Series A: | 2 0 40 | 2 277 602 |
| 5.00%, 7/01/42 | 3,040 | 3,377,683 |
| 5.00%, 7/01/45 | 4,435 | 4,947,597 |
| Municipal Bonds | Par (000) | Value |
| New Jersey (continued) | () | |
| Education (concluded) | | |
| Rutgers - The State University of New Jersey, Refunding RB, Series L, 5.00%, 5/01/43 | \$5,870 | \$6,597,586 |
| | | 64,710,953 |
| Health — 10.4% | | |
| County of Camden New Jersey Improvement Authority, Refunding RB, 5.00%, 2/15/34 | 590 | 643,383 |
| New Jersey Health Care Facilities Financing Authority, RB: Children's Specialized Hospital, Series A, 5.50%, 7/01/36 Hunterdon Medical Center, Series A, 5.13%, 7/01/16 (a) Meridian Health System Obligated Group, Series I (AGC), 5.00%, 7/01/38 | 1,540 1,950 945 | 2,058,791 1,008,485 |
| Robert Wood Johnson University Hospital, Series A, 5.50%, 7/01/43 | 1,420 | |
| Virtua Health, Series A (AGC), 5.50%, 7/01/38 | 2,500 | 2,787,775 |

New Jersey Health Care Facilities Financing Authority, Refunding RB:

| AHS Hospital Corp., 6.00%, 7/01/41 | 2,435 | 2,913,210 |
|-----------------------------------------------------------|-------|-----------|
| Meridian Health System Obligated Group, 5.00%, 7/01/25 | 1,000 | 1,140,940 |
| Robert Wood Johnson University Hospital, 5.00%, 7/01/31 | 1,000 | 1,098,850 |
| South Jersey Hospital, 5.00%, 7/01/36 | 385 | 396,419 |
| St. Barnabas Health Care System, Series A, 5.00%, 7/01/29 | 4,150 | 4,307,036 |
| St. Barnabas Health Care System, Series A, 5.63%, 7/01/32 | 1,090 | 1,251,331 |

Schedule of Investments (continued) BlackRock MuniYield New Jersey Fund, Inc. (MYJ) (Percentages shown are based on Net Assets)

| Municipal Bonds | Par (000) | Val | ue |
|---------------------------------------------------------------------------------|-----------|------------------|-------------------|
| New Jersey (continued) | , , | | |
| Health (concluded) | | | |
| New Jersey Health Care Facilities Financing Authority, | | | |
| Refunding RB (concluded): | ¢2.020 | ¢2.4 | 41 000 |
| St. Barnabas Health Care System, Series A, 5.63%, 7/01/37 | \$3,030 | | 41,898 242,531 |
| Housing — 3.1% | | ∠ 4 , | 242,331 |
| New Jersey Housing & Mortgage Finance Agency, RB: | | | |
| M/F Housing, Series A, 4.75%, 11/01/29 | 2,305 | 2,4 | 08,425 |
| S/F Housing, Series AA, 6.50%, 10/01/38 | 235 | | 3,991 |
| S/F Housing, Series CC, 5.00%, 10/01/34 | 1,795 | 1,8 | 75,362 |
| S/F Housing, Series U, AMT, 4.95%, 10/01/32 | 260 | 264 | ,753 |
| S/F Housing, Series U, AMT, 5.00%, 10/01/37 | 265 | 268 | 3,734 |
| Newark Housing Authority, RB, South Ward Police Facility (AGC), 6.75%, 12/01/38 | 1,750 | 2,0 | 83,358 |
| State — 18.2% | | 7,1 | 44,623 |
| Garden State Preservation Trust, RB, CAB, Series B (AGM) | | | |
| (c): | | | |
| 0.00%, 11/01/23 | 1,460 | 1,1 | 87,929 |
| 0.00%, 11/01/28 | 4,540 | 2,9 | 88,864 |
| New Jersey EDA, RB: | | | |
| Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/25 | 2,000 | | 74,480 |
| Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/33 | 9,090 | | 57,256 |
| School Facilities Construction (AGC), 5.50%, 12/15/18 (a) | 2,345 | | 06,083 |
| School Facilities Construction (AGC), 5.50%, 12/15/34 | 1,320 | | 94,385 |
| School Facilities Construction, Series CC-2, 5.00%, 12/15/31 | 1,700 | | 91,681 |
| School Facilities Construction, Series CC-2, 5.00%, 12/15/32 | 1,300 | | 80,678 |
| School Facilities Construction, Series Y, 5.00%, 9/01/33 | 880 | 941 | ,327 |
| | | | |
| | P | ar | |
| Municipal Bonds | | 000) | Value |
| New Jersey (continued) | | / | |
| State (concluded) | | | |
| New Jersey EDA, Refunding RB: | | | |
| Lions Gate Project, 5.00%, 1/01/34 | \$50 | 00 | \$517,390 |
| Cigarette Tax, 5.00%, 6/15/26 | 4 | 40 | 488,396 |
| Cigarette Tax, 5.00%, 6/15/28 | 72 | 20 | 787,471 |
| Cigarette Tax, 5.00%, 6/15/29 | | 760 | 1,915,883 |
| Lions Gate Project, 5.25%, 1/01/44 | | 15 | 328,454 |
| School Facilities Construction, Series AA, 5.50%, 12/15/29 | | ,000 | 3,277,890 |
| School Facilities Construction, Series AA, 5.25%, 12/15/33 | 1, | ,000 | 1,062,680 |

| School Facilities Construction, Series GG, 5.25%, 9/01/27 | 3,000 | 3,237,540 |
|-----------------------------------------------------------------------------------------------------------------------------|--------|-------------------------|
| New Jersey Health Care Facilities Financing Authority, RB, Hospital Asset Transformation Program, Series A, 5.25%, 10/01/38 | 2,300 | 2,475,467 |
| State of New Jersey, COP, Equipment Lease Purchase, Series A, | | |
| 5.25%, 6/15/28 | 1,100 | 1,225,818 |
| State of New Jersey, GO, 5.00%, 6/01/28 | 2,425 | 2,773,763 42,213,435 |
| Transportation — 40.1% | | |
| Delaware River Port Authority of Pennsylvania & New Jersey, RB: | | |
| 5.00%, 1/01/40 | 2,620 | 2,940,714 |
| Series D, 5.00%, 1/01/40 | 1,535 | 1,694,824 |
| New Jersey EDA, RB, The Goethals Bridge Replacement Project, AMT, 5.38%, 1/01/43 | 8,420 | 9,312,015 |
| New Jersey State Turnpike Authority, RB: | | |
| Growth & Income Securities, Series B (AMBAC), 5.15%, 1/01/35 | 4,870 | 5,159,375 |
| Series A, 5.00%, 1/01/38 | 10,750 | 11,864,452 |
| Series A, 5.00%, 1/01/43 | 610 | 669,981 |
| Series E, 5.25%, 1/01/40 | 2,525 | 2,795,932 |
| New Jersey State Turnpike Authority, Refunding RB, Series A, 5.00%, 1/01/35 | 1,000 | 1,104,760 |

Schedule of Investments (continued) BlackRock MuniYield New Jersey Fund, Inc. (MYJ) (Percentages shown are based on Net Assets)

| Municipal Bonds | Par (000) | Value | | | | |
|---------------------------------------------------------------------------------|-----------|-------------|--|--|--|--|
| New Jersey (concluded) | | | | | | |
| Transportation (concluded) | | | | | | |
| New Jersey Transportation Trust Fund Authority, RB: | | | | | | |
| CAB, Transportation System, Series C (AMBAC), 0.00%, 12/15/35 (c) | \$4,140 | \$1,419,275 | | | | |
| Transportation Program, Series AA, 5.25%, 6/15/33 | 5,935 | 6,351,518 | | | | |
| Transportation Program, Series AA, 5.00%, 6/15/38 | 1,790 | 1,867,185 | | | | |
| Transportation System, 6.00%, 12/15/38 | 1,950 | 2,221,811 | | | | |
| Transportation System, Series A, 6.00%, 6/15/35 | 6,030 | 7,251,196 | | | | |
| Transportation System, Series A, 5.88%, 12/15/38 | 3,650 | 4,096,614 | | | | |
| Transportation System, Series A, 5.50%, 6/15/41 | 5,500 | 6,025,250 | | | | |
| Transportation System, Series A (AGC), 5.50%, 12/15/38 | 1,000 | 1,137,400 | | | | |
| Transportation System, Series A (AGC), 5.63%, 12/15/28 | 1,250 | 1,439,375 | | | | |
| Transportation System, Series AA, 5.50%, 6/15/39 | 5,520 | 6,009,403 | | | | |
| Port Authority of New York & New Jersey, ARB: | | | | | | |
| Consolidated, 169th Series, 5.00%, 10/15/41 | 250 | 268,813 | | | | |
| Consolidated, 93rd Series, 6.13%, 6/01/94 | 5,000 | 6,009,500 | | | | |
| JFK International Air Terminal, Series 8, 6.00%, 12/01/42 | 2,700 | 3,175,902 | | | | |
| Port Authority of New York & New Jersey, Refunding ARB, | | | | | | |
| Consolidated: | | | | | | |
| 152nd Series, AMT, 5.75%, 11/01/30 | 3,300 | 3,698,970 | | | | |
| 152nd Series, AMT, 5.25%, 11/01/35 | 240 | 262,750 | | | | |
| 166th Series, 5.25%, 7/15/36 | 4,000 | 4,511,280 | | | | |
| 172nd Series, AMT, 5.00%, 10/01/34 | 1,500 | 1,633,320 | | | | |
| | | 92,921,615 | | | | |
| Utilities — 1.4% | | | | | | |
| Rahway Valley Sewerage Authority, RB, CAB, Series A (NPFGC), 0.00%, 9/01/31 (c) | 6,000 | 3,254,460 | | | | |
| Total Municipal Bonds — 129.0% | | 299,085,484 | | | | |

| Municipal Bonds Transferred to Tender Option Bond Trusts (d) | Par (000) | Value |
|-----------------------------------------------------------------|-----------|--------------|
| New Jersey — 29.5% | | |
| County/City/Special District/School Di | istrict — | 6.0% |
| County of Union New Jersey Utilities | | |
| Authority, Refunding LRB, Resource | \$12.920 | \$13,995,081 |
| Recovery Facility, Covanta Union, | \$12,020 | \$15,995,081 |
| Inc., Series A, AMT, 5.25%, 12/01/31 | | |
| Education — 1.0% | | |
| Rutgers - The State University of New | 2.000 | 2 240 251 |
| Jersey, RB, Series F, 5.00%, 5/01/39 | 2,009 | 2,249,351 |
| State — 7.1% | | |
| | 5.460 | 6.773.949 |

| Garden State Preservation Trust, RB, | | |
|---------------------------------------------|------------|-----------------------|
| Election of 2005, Series A (AGM), | | |
| 5.75%, 11/01/28 | | |
| New Jersey EDA, RB, School | | |
| Facilities Construction (AGC): | | |
| 6.00%, 12/15/34 (a) | 1,185 | 1,406,061 |
| 6.00%, 12/15/34 | 2,415 | 2,763,261 |
| New Jersey EDA, Refunding RB, | 5 220 | 5,560,120 |
| 5.00%, 3/01/29 (e) | 5,230 | 3,300,120 |
| | | 16,503,391 |
| Transportation — 15.4% | | |
| New Jersey State Turnpike Authority, | 8,820 | 9,734,369 |
| RB, Series A, 5.00%, 1/01/38 (e) | 0,020 | 9,734,309 |
| New Jersey Transportation Trust Fund | | |
| Authority, RB, Transportation System: | | |
| Series A (AMBAC), 5.00%, 12/15/32 | 4,100 | 4,464,080 |
| Series B, 5.25%, 6/15/36 (e) | 5,001 | 5,270,804 |
| Port Authority of New York & New | | |
| Jersey, RB, Consolidated, 169th Series, | 11,250 | 12,096,562 |
| AMT, 5.00%, 10/15/41 | | |
| Port Authority of New York & New | | |
| Jersey, Refunding RB, Consolidated, | 3,764 | 4,120,460 |
| 152nd Series, AMT, 5.25%, 11/01/35 | | |
| | | 35,686,275 |
| Total Municipal Bonds Transferred to | 68,434,098 | |
| Tender Option Bond Trusts — 29.5% | 20,121,070 | |
| Total Long-Term Investments | | 367,519,582 |
| (Cost — \$340,648,206) — 158.5% | | 2 2 . , 2 1 > , 2 0 2 |

Schedule of Investments (continued) BlackRock MuniYield New Jersey Fund, Inc. (MYJ) (Percentages shown are based on Net Assets)

Short-Term Securities Shares Value BIF New Jersey Municipal Money Fund, 0.01% (f)(g) 1,747,044 \$1,747,044 **Total Short-Term Securities** (Cost — \$1,747,044) — 0.7%

Total Investments
(Cost — \$342,395,250*) — 159.2%
Other Assets Less Liabilities — 2.0%
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable — (17.1%)
VRDP Shares, at Liquidation Value — (44.1%)
Net Assets Applicable to Common Shares — 100.0%

Value

\$369,266,626

4,431,307

(39,569,104)

(102,200,000)

\$231,928,829

* As of April 30, 2015, gross unrealized appreciation and depreciation based on cost for federal income tax purposes were as follows:

Tax cost \$303,519,833

Gross unrealized appreciation \$27,767,166 Gross unrealized depreciation (1,573,892)

Net unrealized appreciation \$26,193,274

Notes to Schedule of Investments

- (a) U.S. Government securities, held in escrow, are used to pay interest on this security, as well as to retire the bond in full at the date indicated, typically at a premium to par.
- (b) Security exempt from registration pursuant to Rule 144A under the Securities Act of 1933, as amended. These securities may be resold in transactions exempt from registration to qualified institutional investors.
- (c) Zero-coupon bond.
- Represent bonds transferred to a TOB Trust in exchange of cash and residual certificates received by the Fund. These bonds serve as collateral in a secured borrowing.
 - All or a portion of security is subject to a recourse agreement, which may require the Fund to pay the liquidity provider in the event there is a shortfall between the TOB Trust Certificates and proceeds received from the sale of
- (e) the security contributed to the TOB Trust or in the event of a default on the security. In the case of a shortfall or default, the aggregate maximum potential amount the Fund could ultimately be required to pay under the agreements, which expire from June 15, 2019 to September 1, 2020 is \$14,350,925.

(f)

During the period ended April 30, 2015, investments in issuers considered to be an affiliate of the Fund for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

| | Shares | Net | Shares | |
|-------------------------------------|---------------|-----------|----------------|--------|
| Affiliate | Held at | Activity | Held at | Income |
| | July 31, 2014 | Activity | April 30, 2015 | |
| BIF New Jersey Municipal Money Fund | 2,287,613 | (540,569) | 1,747,044 | \$30 |

(g) Represents the current yield as of report date.

Portfolio Abbreviations

AGC Assured Guarantee Corp.

AGM Assured Guaranty Municipal Corp.

AMBAC American Municipal Bond Assurance Corp.

AMT Alternative Minimum Tax (subject to)

ARB Airport Revenue Bonds

CAB Capital Appreciation Bonds

COP Certificates of Participation

EDA Economic Development Authority

Schedule of Investments (continued) BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

GO General Obligation Bonds LRB Lease Revenue Bonds

LRB Lease Revenue Bo M/F Multi-Family

NPFGCNational Public Finance Guarantee Corp.

RB Revenue Bonds S/F Single-Family

[•]As of April 30, 2015, financial futures contracts outstanding were as follows:

| Contracts | Signa | Evel or see Evel or See Notional | | Unrealized |
|-----------|----------------------------|----------------------------------|------------------------|--------------|
| Short | Issue | Exchange | Expiration Value | Depreciation |
| (189) | 10-Year U.S. Treasury Note | Chicago Board of Trade | June 2015 \$24.262.875 | \$(213,605) |

For Fund compliance purposes, the Fund's sector classifications refer to any one or more of the sector sub-classifications used by one or more widely recognized market indexes or rating group indexes, and/or as defined by the investment advisor. These definitions may not apply for purposes of this report, which may combine such sector sub-classifications for reporting ease.

Fair Value Measurements - Various inputs are used in determining the fair value of investments and derivative financial instruments. These inputs to valuation techniques are categorized into a disclosure hierarchy consisting of three broad levels for financial reporting purposes. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). Accordingly, the degree of judgment exercised in determining fair value is greatest for instruments categorized in Level 3. The inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for disclosure purposes, the fair value hierarchy classification is determined based on the lowest level input that is significant to the fair value measurement in its entirety. The categorization of a value determined for investments and derivative financial instruments is based on the pricing transparency of the investment and derivative financial instruments and is not necessarily an indication of the risks associated with investing in those securities. The three levels of the fair value hierarchy are as follows:

Level 1 — unadjusted quoted prices in active markets/exchanges for identical assets or liabilities that the Fund has the ability to access

Level 2 — other observable inputs (including, but not limited to, quoted prices for similar assets or liabilities in markets that are active, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the assets or liabilities (such as interest rates, yield curves, volatilities, prepayment speeds, loss severities, credit risks and default rates) or other market-corroborated inputs)

Level 3 — unobservable inputs based on the best information available in the circumstances, to the extent observable inputs are not available (including the Fund's own assumptions used in determining the fair value of investments and derivative financial instruments)

Changes in valuation techniques may result in transfers into or out of an assigned level within the disclosure hierarchy. In accordance with the Fund's policy, transfers between different levels of the fair value disclosure hierarchy are deemed to have occurred as of the beginning of the reporting period. For information about the Fund's policy regarding valuation of investments and derivative financial instruments, refer to the Fund's most recent financial statements as contained in its semi-annual report.

Schedule of Investments (concluded) BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

As of April 30, 2015, the following tables summarize the Fund's investments and derivative financial instruments categorized in the disclosure hierarchy:

| | Level 1 | Level 2 | Level 3 | Total |
|------------------------------------|-------------|-----------|---------------|---------------|
| Assets: | | | | |
| Investments: | | | | |
| Long-Term Investments ¹ | | \$367,519 | ,582 — | \$367,519,582 |
| Short-Term Securities | \$1,747,044 | _ | | 1,747,044 |
| Total | \$1,747,044 | \$367,519 | ,582 — | \$369,266,626 |
| ¹ See above | | | | |
| Schedule of | | | | |
| _ | | | | |
| Investments | | | | |
| for values in | | | | |
| each sector. | | | | |
| | | | | |
| | L | evel 1 I | Level 2 Level | 13 Total |

Derivative Financial Instruments²

Liabilities:

Interest rate contracts \$(213,605) — \$(213,605)

The Fund may hold assets and/or liabilities in which the fair value approximates the carrying amount for financial reporting purposes. As of April 30, 2015, such assets and/or liabilities are categorized within the disclosure hierarchy as follows:

| | Level 1 | Level 2 | Level 3 | 5 Total |
|----------------------------------------------|-----------|----------------|---------|-----------------|
| Assets: | | | | |
| Cash pledged for financial futures contracts | \$268,000 | | | \$268,000 |
| Liabilities: | | | | |
| TOB trust certificates | | \$(39,553,519 |)— | (39,553,519) |
| VRDP Shares | | (102,200,000 |)— | (102,200,000) |
| Total | \$268,000 | \$(141,753,519 |)— | \$(141,485,519) |

During the period ended April 30, 2015, there were no transfers between levels.

Derivative financial instruments are financial futures contracts, which are valued at the unrealized appreciation/depreciation on the instrument.

Item 2 -Controls and Procedures

The registrant's principal executive and principal financial officers, or persons performing similar functions, have concluded that the registrant's disclosure controls and procedures (as defined in Rule 30a-3(c) under the

2(a) – Investment Company Act of 1940, as amended (the 1940 Act)) are effective as of a date within 90 days of the filing of this report based on the evaluation of these controls and procedures required by Rule 30a-3(b) under the 1940 Act and Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended.

There were no changes in the registrant's internal control over financial reporting (as defined in Rule 30a-3(d) under the 1940 Act) that occurred during the registrant's last fiscal quarter that have materially affected, or are reasonably

2(b) – quarter that have materially affected, or are reasonably likely to materially affect, the registrant's internal control over financial reporting.

Item 3 -Exhibits

Certifications – Attached hereto

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized

BlackRock MuniYield New Jersey Fund, Inc.

By: /s/ John M. Perlowski

John M. Perlowski Chief Executive Officer (principal executive officer) of BlackRock MuniYield New Jersey Fund, Inc.

Date: June 22, 2015

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ John M. Perlowski

John M. Perlowski

Chief Executive Officer (principal executive officer) of BlackRock MuniYield New Jersey Fund, Inc.

Date: June 22, 2015

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of

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Date: June 22, 2015