

BLACKROCK MUNIYIELD NEW JERSEY FUND, INC.

Form N-Q

December 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 52nd Street, New York, NY 10055

Registrant's telephone number, including area code: (800) 882-0052, Option 4

Date of fiscal year end: 07/31/2016

Date of reporting period: 10/31/2015

Item 1 Schedule of Investments

Schedule of Investments October 31, 2015 (Unaudited)

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

(Percentages shown are based on Net Assets)

| | Par | |
|--|--------------|--------------|
| | (000) | Value |
| Municipal Bonds | | |
| New Jersey 129.3% | | |
| Corporate 10.8% | | |
| County of Salem New Jersey Pollution Control Financing Authority, Refunding RB, Atlantic City Electric, Series A, 4.88%, 6/01/29 | \$ 4,550 | \$ 5,022,836 |
| Middlesex County Improvement Authority, RB, Senior Heldrich Center Hotel, Series A, 5.00%, 1/01/20 | 655 | 599,318 |
| New Jersey EDA, RB, Continental Airlines, Inc. Project, AMT: | | |
| Series A, 5.63%, 11/15/30 | 1,730 | 1,920,646 |
| Series B, 5.63%, 11/15/30 | 485 | 538,447 |
| New Jersey EDA, Refunding RB: | | |
| New Jersey American Water Co., Inc. Project, Series A, AMT, 5.70%, 10/01/39 | 7,900 | 8,955,914 |
| New Jersey American Water Co., Inc. Project, Series B, AMT, 5.60%, 11/01/34 | 2,430 | 2,733,143 |
| United Water of New Jersey, Inc., Series B (AMBAC), 4.50%, 11/01/25 | 4,500 | 4,845,780 |
| | | 24,616,084 |
| County/City/Special District/School District 20.1% | | |
| Casino Reinvestment Development Authority, Refunding RB: | | |
| 5.25%, 11/01/39 | 2,280 | 2,299,517 |
| 5.25%, 11/01/44 | 6,500 | 6,523,140 |
| City of Margate New Jersey, GO, Refunding, Improvement: | | |
| 5.00%, 1/15/26 | 1,200 | 1,341,612 |
| 5.00%, 1/15/27 | 845 | 937,840 |
| City of Perth Amboy New Jersey, GO, CAB, Refunding (AGM), 5.00%, 7/01/33 | 755 | 780,255 |
| County of Essex New Jersey Improvement Authority, RB, AMT, 5.25%, 7/01/45 (a) | 3,765 | 3,840,225 |
| County of Essex New Jersey Improvement Authority, Refunding RB, Project Consolidation (NPFGC): | | |
| 5.50%, 10/01/28 | 2,700 | 3,477,168 |
| | Par | |
| | (000) | Value |
| Municipal Bonds | | |
| New Jersey (continued) | | |
| County/City/Special District/School District (continued) | | |
| County of Essex New Jersey Improvement Authority, Refunding RB, Project Consolidation (NPFGC) (continued): | | |
| 5.50%, 10/01/29 | \$ 5,085 | \$ 6,569,871 |
| County of Gloucester New Jersey Improvement Authority, RB, County Guaranteed Loan County Capital Program, 5.00%, 4/01/38 | 1,000 | 1,077,340 |
| County of Hudson New Jersey, COP, Refunding, (NPFGC), 6.25%, 12/01/16 | 1,500 | 1,581,270 |
| County of Hudson New Jersey Improvement Authority, RB, Harrison Parking Facility Project, Series C (AGC), | | |
| 5.38%, 1/01/44 | 4,800 | 5,282,544 |
| County of Mercer Improvement Authority, RB, Courthouse Annex Project, 5.00%, 9/01/40 | 1,470 | 1,666,495 |
| County of Middlesex New Jersey, Refunding, COPS, Civic Square IV Redevelopment, 5.00%, 10/15/31 | 1,400 | 1,689,646 |
| County of Union New Jersey Improvement Authority, LRB, Guaranteed Lease, Family Court Building Project, | | |
| 5.00%, 5/01/42 | 1,650 | 1,827,193 |
| County of Union New Jersey Utilities Authority, Refunding RB, Series A: | | |
| Resources Recovery Facility, Covanta Union, Inc., AMT, 5.25%, 12/01/31 | 670 | 730,300 |
| Solid Waste System, County Deficiency Agreement, 5.00%, 6/15/41 | 4,115 | 4,549,132 |
| Monmouth County Improvement Authority, Refunding RB, Government Loan (AMBAC): | | |
| 5.00%, 12/01/15 | 5 | 5,018 |
| 5.00%, 12/01/16 | 5 | 5,017 |

Schedule of Investments (continued)

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

| | Par | |
|--|--------------|--------------|
| | (000) | Value |
| Municipal Bonds | | |
| New Jersey (continued) | | |
| County/City/Special District/School District (continued) | | |
| Monroe Township Board of Education Middlesex County, GO, Refunding, 5.00%, 3/01/38 | \$ 1,625 | \$ 1,839,760 |
| | | 46,023,343 |
| Education 28.0% | | |
| New Jersey EDA, RB: | | |
| Leap Academy Charter School, Series A, 6.20%, 10/01/44 | 235 | 237,388 |
| Leap Academy Charter School, Series A, 6.30%, 10/01/49 | 375 | 378,773 |
| MSU Student Housing Project Provide, 5.75%, 6/01/31 | 1,000 | 1,113,350 |
| MSU Student Housing Project Provide, 5.88%, 6/01/42 | 1,500 | 1,659,390 |
| The Team Academy Charter School Project, 6.00%, 10/01/33 | 2,835 | 3,200,091 |
| New Jersey EDA, Refunding RB, Series A, Greater Brunswick Charter School, Inc. Project (a): 5.88%, 8/01/44 | 780 | 799,757 |
| 6.00%, 8/01/49 | 555 | 568,026 |
| New Jersey Educational Facilities Authority, RB: | | |
| Higher Educational Capital Improvement Fund, Series A, 5.00%, 9/01/32 | 3,925 | 4,046,322 |
| Montclair State University, Series J, 5.25%, 7/01/38 | 1,140 | 1,242,817 |
| New Jersey Educational Facilities Authority, Refunding RB: | | |
| College of New Jersey, Series D, 5.00%, 7/01/18 (b) | 1,485 | 1,647,296 |
| College of New Jersey, Series D, 5.00%, 7/01/35 | 4,630 | 5,032,717 |
| Georgian Court University, Series D, 5.25%, 7/01/37 | 1,000 | 1,049,530 |
| Kean University, Series A, 5.50%, 9/01/36 | 4,500 | 5,071,545 |
| Montclair State University, Series A, 5.00%, 7/01/44 | 6,790 | 7,470,969 |
| New Jersey Institute of Technology, Series H, 5.00%, 7/01/31 | 1,250 | 1,400,063 |
| Ramapo College, Series B, 5.00%, 7/01/42 | 340 | 367,880 |
| Rider University, Series A, 5.00%, 7/01/32 | 1,000 | 1,064,840 |
| Rowan University, Series B (AGC), 5.00%, 7/01/24 | 1,800 | 1,977,228 |
| Seton Hall University, Series D, 5.00%, 7/01/38 | 395 | 433,141 |
| | Par | |
| | (000) | Value |
| Municipal Bonds | | |
| New Jersey (continued) | | |
| Education (continued) | | |
| New Jersey Educational Facilities Authority, Refunding RB (continued): | | |
| University of Medicine & Dentistry, Series B, 7.13%, 6/01/19 (b) | \$ 1,300 | \$ 1,571,505 |
| University of Medicine & Dentistry, Series B, 7.50%, 6/01/19 (b) | 1,625 | 1,985,717 |
| New Jersey Higher Education Student Assistance Authority, Refunding RB: | | |
| Series 1, AMT, 5.75%, 12/01/29 | 4,045 | 4,458,318 |
| Series 1A, 5.00%, 12/01/25 | 765 | 807,144 |
| Series 1A, 5.00%, 12/01/26 | 480 | 505,382 |
| Series 1A, 5.25%, 12/01/32 | 900 | 967,257 |
| New Jersey Institute of Technology, RB, Series A: | | |
| 5.00%, 7/01/40 | 1,500 | 1,663,665 |
| 5.00%, 7/01/42 | 3,040 | 3,331,718 |
| 5.00%, 7/01/45 | 2,935 | 3,210,156 |
| Rutgers The State University of New Jersey, Refunding RB, Series L, 5.00%, 5/01/43 | 5,870 | 6,536,656 |
| | | 63,798,641 |
| Health 8.9% | | |

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| | | |
|---|-------|-----------|
| County of Camden New Jersey Improvement Authority, Refunding RB, 5.00%, 2/15/34 | 590 | 630,391 |
| New Jersey EDA, Refunding RB, Lions Gate Project: | | |
| 5.00%, 1/01/34 | 500 | 508,690 |
| 5.25%, 1/01/44 | 315 | 321,584 |
| New Jersey Health Care Facilities Financing Authority, RB: | | |
| Meridian Health System Obligated Group, | | |
| Series I (AGC), 5.00%, 7/01/38 | 935 | 988,258 |
| Robert Wood Johnson University Hospital, | | |
| Series A, 5.50%, 7/01/43 | 1,420 | 1,629,052 |
| Virtua Health, Series A (AGC), 5.50%, 7/01/38 | 2,500 | 2,754,850 |
| New Jersey Health Care Facilities Financing Authority, Refunding RB: | | |
| AHS Hospital Corp., 6.00%, 7/01/41 | 2,435 | 2,875,735 |

Schedule of Investments (continued)

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

| | Par | |
|--|--------------|--------------|
| | (000) | Value |
| Municipal Bonds | | |
| New Jersey (continued) | | |
| Health (continued) | | |
| New Jersey Health Care Facilities Financing Authority, Refunding RB (continued): | | |
| Robert Wood Johnson University Hospital, 5.00%, 7/01/31 | \$ 1,000 | \$ 1,102,540 |
| South Jersey Hospital, 5.00%, 7/01/36 | 385 | 391,672 |
| St. Barnabas Health Care System, Series A, 5.00%, 7/01/29 | 4,140 | 4,255,258 |
| St. Barnabas Health Care System, Series A, 5.63%, 7/01/32 | 1,090 | 1,258,372 |
| St. Barnabas Health Care System, Series A, 5.63%, 7/01/37 | 3,030 | 3,460,351 |
| | | 20,176,753 |
| Housing 3.1% | | |
| New Jersey Housing & Mortgage Finance Agency, RB: | | |
| M/F Housing, Series A, 4.75%, 11/01/29 | 2,305 | 2,424,952 |
| S/F Housing, Series AA, 6.50%, 10/01/38 | 185 | 191,830 |
| S/F Housing, Series CC, 5.00%, 10/01/34 | 1,700 | 1,769,768 |
| S/F Housing, Series U, AMT, 4.95%, 10/01/32 | 260 | 264,446 |
| S/F Housing, Series U, AMT, 5.00%, 10/01/37 | 265 | 268,644 |
| Newark Housing Authority, RB, South Ward Police Facility (AGC), 6.75%, 12/01/38 | 1,750 | 2,057,423 |
| | | 6,977,063 |
| State 17.0% | | |
| Garden State Preservation Trust, RB, CAB, Series B (AGM) (c): | | |
| 0.00%, 11/01/23 | 1,460 | 1,208,617 |
| 0.00%, 11/01/28 | 4,540 | 3,087,745 |
| New Jersey EDA, RB: | | |
| Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/25 | 2,000 | 2,317,880 |
| Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/33 | 9,090 | 9,207,352 |
| | Par | |
| | (000) | Value |
| Municipal Bonds | | |
| New Jersey (continued) | | |
| State (continued) | | |
| New Jersey EDA, RB (continued): | | |
| School Facilities Construction (AGC), 5.50%, 12/15/18 (b) | \$ 2,345 | \$ 2,672,432 |
| School Facilities Construction (AGC), 5.50%, 12/15/34 | 1,320 | 1,452,739 |
| School Facilities Construction, Series CC-2, 5.00%, 12/15/31 | 1,125 | 1,148,670 |
| School Facilities Construction, Series Y, 5.00%, 9/01/18 (b) | 880 | 980,434 |
| New Jersey EDA, Refunding RB: | | |
| 5.25%, 6/15/19 (b) | 265 | 304,276 |
| 5.25%, 12/15/33 | 735 | 758,167 |
| Cigarette Tax, 5.00%, 6/15/26 | 440 | 468,626 |
| Cigarette Tax, 5.00%, 6/15/28 | 720 | 756,533 |
| Cigarette Tax, 5.00%, 6/15/29 | 1,760 | 1,841,647 |
| School Facilities Construction, Series AA, 5.50%, 12/15/29 | 3,000 | 3,157,560 |
| School Facilities Construction, Series GG, 5.25%, 9/01/27 | 3,000 | 3,164,160 |
| New Jersey Health Care Facilities Financing Authority, RB, Hospital Asset Transformation Program, Series A, 5.25%, 10/01/38 | 2,300 | 2,397,727 |

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| | | |
|--|-------|------------|
| State of New Jersey, COP, Equipment Lease Purchase, Series A, 5.25%, 6/15/28 | 1,100 | 1,152,734 |
| State of New Jersey, GO, Various Purposes, 5.00%, 6/01/28 | 2,425 | 2,756,910 |
| | | 38,834,209 |
| Transportation 40.0% | | |
| Delaware River Port Authority of Pennsylvania & New Jersey, RB: | | |
| 5.00%, 1/01/40 | 2,620 | 2,922,636 |
| Series D, 5.00%, 1/01/40 | 1,535 | 1,707,227 |
| New Jersey EDA, RB, The Goethals Bridge Replacement Project, AMT: | | |
| 5.38%, 1/01/43 | 9,420 | 10,043,981 |
| Private Activity Bond (AGM), 5.00%, 1/01/31 | 1,000 | 1,101,250 |

BLACKROCK MUNIYIELD NEW JERSEY FUND, INC.

OCTOBER 31, 2015

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Schedule of Investments (continued)

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

| | Par | |
|---|--------------|--------------------|
| | (000) | Value |
| Municipal Bonds | | |
| New Jersey (continued) | | |
| Transportation (continued) | | |
| New Jersey State Turnpike Authority, RB: | | |
| Growth & Income Securities, Series B (AMBAC), 5.15%, 1/01/35 (d) | \$ 4,870 | \$ 5,079,848 |
| Series A, 5.00%, 1/01/38 | 10,750 | 11,876,170 |
| Series A, 5.00%, 1/01/43 | 610 | 671,982 |
| Series E, 5.25%, 1/01/40 | 2,525 | 2,774,091 |
| New Jersey State Turnpike Authority, Refunding RB, Series A, 5.00%, 1/01/35 | 1,000 | 1,105,310 |
| New Jersey Transportation Trust Fund Authority, RB: | | |
| CAB, Transportation System, Series C (AMBAC), 0.00%, 12/15/35 (c) | 4,140 | 1,368,063 |
| Transportation Program, Series AA, | | |
| 5.00%, 6/15/38 | 5,935 | 6,042,898 |
| Transportation System, 6.00%, 12/15/38 | 1,950 | 2,136,011 |
| Transportation System, Series A, | | |
| 6.00%, 6/15/35 | 6,030 | 6,657,361 |
| Transportation System, Series A, | | |
| 5.88%, 12/15/38 | 3,650 | 3,939,153 |
| Transportation System, Series A, | | |
| 5.50%, 6/15/41 | 5,500 | 5,834,840 |
| Transportation System, Series A (AGC), | | |
| 5.63%, 12/15/28 | 1,250 | 1,419,350 |
| Transportation System, Series A (AGC), | | |
| 5.50%, 12/15/38 | 1,000 | 1,092,310 |
| Transportation System, Series AA, | | |
| 5.50%, 6/15/39 | 5,520 | 5,876,316 |
| Port Authority of New York & New Jersey, ARB: | | |
| Consolidated, 93rd Series, 6.13%, 6/01/94 | 5,000 | 6,102,850 |
| JFK International Air Terminal, Series 8, | | |
| 6.00%, 12/01/42 | 2,700 | 3,129,759 |
| 169th Series, 5.00%, 10/01/41 | 250 | 271,125 |
| Port Authority of New York & New Jersey, Refunding ARB, Consolidated: | | |
| 152nd Series, AMT, 5.75%, 11/01/30 | 3,300 | 3,649,008 |
| 152nd Series, AMT, 5.25%, 11/01/35 | 240 | 260,158 |
| 166th Series, 5.25%, 7/15/36 | 4,000 | 4,564,880 |
| | Par | |
| | (000) | Value |
| Municipal Bonds | | |
| New Jersey (continued) | | |
| Transportation (continued) | | |
| Port Authority of New York & New Jersey, Refunding ARB, Consolidated (continued): | | |
| 172nd Series, AMT, 5.00%, 10/01/34 | \$ 1,500 | \$ 1,661,955 |
| | | 91,288,532 |
| Utilities 1.5% | | |
| Rahway Valley Sewerage Authority, RB, CAB, | | |
| Series A (NPFGC), 0.00%, 9/01/31 (c) | 6,000 | 3,367,920 |
| Total Municipal Bonds 129.4% | | 295,082,545 |

**Municipal Bonds Transferred to
Tender Option Bond Trusts (e)**

| | | |
|---|--------|------------|
| New Jersey 29.9% | | |
| County/City/Special District/School District 6.1% | | |
| County of Union New Jersey Utilities Authority, Refunding LRB, Resource Recovery Facility, Covanta Union, Inc., Series A, AMT, | | |
| 5.25%, 12/01/31 | 12,820 | 13,973,800 |
| Education 1.0% | | |
| Rutgers The State University of New Jersey, RB, Series F, 5.00%, 5/01/39 | 2,009 | 2,235,006 |
| State 7.2% | | |

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| | | |
|--|-------|------------|
| Garden State Preservation Trust, RB, Election of 2005, Series A (AGM), 5.75%, 11/01/28 | 5,460 | 6,807,910 |
| New Jersey EDA, RB, School Facilities Construction (AGC): | | |
| 6.00%, 12/15/18 (b) | 1,185 | 1,385,698 |
| 6.00%, 12/15/34 | 2,415 | 2,723,378 |
| New Jersey EDA, Refunding RB, 5.00%, 3/01/29 (f) | 5,230 | 5,430,903 |
| | | 16,347,889 |
| Transportation 15.6% | | |
| New Jersey State Turnpike Authority, RB, Series A, 5.00%, 1/01/38 (f) | 8,820 | 9,743,983 |
| New Jersey Transportation Trust Fund Authority, RB, Transportation System: | | |
| Series A (AMBAC), 5.00%, 12/15/32 | 4,100 | 4,294,135 |
| Series B, 5.25%, 6/15/36 (f) | 5,001 | 5,185,441 |

Schedule of Investments (continued)

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

| | Par | |
|--|---------------|----------------|
| | (000) | Value |
| Municipal Bonds Transferred to Tender Option Bond Trusts (e) | | |
| New Jersey (continued) | | |
| Transportation (continued) | | |
| Port Authority of New York & New Jersey, RB, Consolidated, 169th Series, AMT, 5.00%, 10/15/41 | \$ 11,250 | \$ 12,200,625 |
| Port Authority of New York & New Jersey, Refunding RB, Consolidated, 152nd Series, AMT, 5.25%, 11/01/35 | 3,764 | 4,079,811 |
| | | 35,503,995 |
| Total Municipal Bonds Transferred to Tender Option Bond Trusts 29.9% | | 68,060,690 |
| Total Long-Term Investments (Cost \$340,154,959) 159.3% | | 363,143,235 |
| Short-Term Securities | Shares | Value |
| BIF New Jersey Municipal Money Fund, 0.01% (g)(h) | 2,110,678 | \$ 2,110,678 |
| Total Short-Term Securities (Cost \$2,110,678) 0.9% | | 2,110,678 |
| Total Investments (Cost \$342,265,637*) 160.2% | | 365,253,913 |
| Other Assets Less Liabilities 1.9% | | 4,554,806 |
| Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable (17.3)% | | (39,572,305) |
| VRDP Shares, at Liquidation Value (44.8)% | | (102,200,000) |
| Net Assets Applicable to Common Shares 100.0% | | \$ 228,036,414 |

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

| | |
|-------------------------------|----------------|
| Tax cost | \$ 303,381,719 |
| Gross unrealized appreciation | \$ 24,553,709 |
| Gross unrealized depreciation | (2,235,034) |
| Net unrealized appreciation | \$ 22,318,675 |

Notes to Schedule of Investments

- (a) 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.
- (b) 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.
- (c) Zero-coupon bond.

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- (d) Represents a step-up bond that pays an initial coupon rate for the first period and then a higher coupon rate for the following periods. Rate shown is as of period end.
- (e) 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.
- (f) 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 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 between June 15, 2019 to September 1, 2020 is \$14,350,925.
- (g) During the period ended October 31, 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:

| Affiliate | Shares Held at July 31, 2015 | Net Activity | Shares Held at October 31, 2015 | Income |
|-------------------------------------|---|-------------------------|--|---------------|
| BIF New Jersey Municipal Money Fund | 3,887,295 | (1,776,617) | 2,110,678 | \$ 39 |

- (h) Represents the current yield as of period end.

BLACKROCK MUNIYIELD NEW JERSEY FUND, INC.

OCTOBER 31, 2015

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Schedule of Investments (continued)

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

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.

Portfolio Abbreviations

| | | | | | |
|--------------|---|------------|--------------------------------|--------------|---|
| AGC | Assured Guarantee Corp. | CAB | Capital Appreciation Bonds | M/F | Multi-Family |
| AGM | Assured Guaranty Municipal Corp. | COP | Certificates of Participation | NPFGC | National Public Finance Guarantee Corp. |
| AMBAC | American Municipal Bond Assurance Corp. | EDA | Economic Development Authority | OTC | Over-the-Counter |
| AMT | Alternative Minimum Tax (subject to) | GO | General Obligation Bonds | RB | Revenue Bonds |
| ARB | Airport Revenue Bonds | LRB | Lease Revenue Bonds | S/F | Single-Family |

Derivative Financial Instruments Outstanding as of Period End

Financial Futures Contracts

| Contracts | Issue | Expiration | Notional Value | Unrealized Appreciation |
|--------------|----------------------------|---------------|----------------|-------------------------|
| Short | | | | |
| (14) | 5-Year U.S. Treasury Note | December 2015 | \$ 1,676,828 | \$ 19,476 |
| (25) | 10-Year U.S. Treasury Note | December 2015 | \$ 3,192,188 | 52,579 |
| (11) | Long U.S. Treasury Bond | December 2015 | \$ 1,720,812 | 35,525 |
| (2) | U.S. Ultra Bond | December 2015 | \$ 319,500 | 5,216 |
| Total | | | | \$ 112,796 |

Schedule of Investments (continued)

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

Fair Value Hierarchy as of Period End

Various inputs are used in determining the fair value of investments and derivative financial instruments. These inputs to valuation techniques are categorized into a fair value hierarchy consisting of three broad levels for financial reporting purposes as follows:

Level 1 unadjusted price quotations 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)

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 significant unobservable inputs used by the Global Valuation Committee in determining the price for Fair Valued Investments are typically categorized as Level 3.

Changes in valuation techniques may result in transfers into or out of an assigned level within the hierarchy. In accordance with the Fund's policy, transfers between different levels of the fair value hierarchy are deemed to have occurred as of the beginning of the reporting period. The categorization of a value determined for investments [and derivative financial instruments] is based on the pricing transparency of the investments and derivative financial instruments and is not necessarily an indication of the risks associated with investing in those securities. 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 annual report.

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 | | \$ 363,143,235 | | \$ 363,143,235 |
| Short-Term Investments | \$ 2,110,678 | | | 2,110,678 |
| Total | \$ 2,110,678 | \$ 363,143,235 | | \$ 365,253,913 |

¹ See above Schedule of Investments for values in each sector.

| | Level 1 | Level 2 | Level 3 | Total |
|---|------------|---------|---------|------------|
| Derivative Financial Instruments¹ | | | | |
| Assets: | | | | |
| Interest rate contracts | \$ 112,796 | | | \$ 112,796 |

¹ Derivative financial instruments are financial futures contracts, which are valued at the unrealized appreciation (depreciation) on the instrument.

Schedule of Investments (concluded)

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

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

| | Level 1 | Level 2 | Level 3 | Total |
|--|-----------|------------------|---------|------------------|
| Assets: | | | | |
| Cash pledged for financial futures contracts | \$ 92,150 | | | \$ 92,150 |
| Liabilities: | | | | |
| TOB Trust Certificates | | \$ (39,553,519) | | (39,553,519) |
| VRDP Shares | | (102,200,000) | | (102,200,000) |
| Total | \$ 92,150 | \$ (141,753,519) | | \$ (141,661,369) |

During the period ended October 31, 2015, there were no transfers between levels.

Item 2 Controls and Procedures

- 2(a) 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 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.
- 2(b) 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 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: December 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: December 22, 2015

By: /s/ Neal J. Andrews
Neal J. Andrews
Chief Financial Officer (principal financial officer) of
BlackRock MuniYield New Jersey Fund, Inc.

Date: December 22, 2015