

BLACKROCK MUNIYIELD NEW JERSEY FUND, INC.
Form N-Q
June 25, 2014

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: 07/31/2014

Date of reporting period: 04/30/2014

Item 1 – Schedule of Investments

Schedule of Investments April 30, 2014 (Unaudited) **BlackRock MuniYield New Jersey Fund, Inc. (MYJ)**
(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
New Jersey — 130.2%		
Corporate — 10.4%		
County of Salem New Jersey Pollution Control Financing Authority, Refunding RB, Atlantic City Electric, Series A, 4.88%, 6/01/29	\$4,550	\$4,836,468
Middlesex County Improvement Authority, RB, Senior Heldrich Center Hotel, Series A, 5.00%, 1/01/20	655	489,364
New Jersey EDA, RB, Continental Airlines, Inc. Project, AMT:		
Series A, 5.63%, 11/15/30	1,730	1,777,956
Series B, 5.63%, 11/15/30	485	498,444
New Jersey EDA, Refunding RB:		
New Jersey American Water Co., Inc. Project, Series A, AMT, 5.70%, 10/01/39	7,900	8,557,043
New Jersey American Water Co., Inc. Project, Series B, AMT, 5.60%, 11/01/34	2,430	2,654,410
United Water of New Jersey, Inc., Series B (AMBAC), 4.50%, 11/01/25	4,500	4,836,870
		23,650,555
County/City/Special District/School District — 13.9%		
City of Margate New Jersey, GO, Refunding, Improvement:		
5.00%, 1/15/26	1,200	1,334,508
5.00%, 1/15/27	845	933,328
City of Perth Amboy New Jersey, GO, Refunding, CAB (AGM):		
5.00%, 7/01/33	1,575	1,640,898
5.00%, 7/01/34	1,925	1,997,341
County of Essex New Jersey Improvement Authority, Refunding RB, Project Consolidation (NPFGC):		
5.50%, 10/01/28	2,700	3,328,911
5.50%, 10/01/29	5,085	6,247,685
County of Gloucester New Jersey Improvement Authority, RB, County Guaranteed Loan—County Capital Program, 5.00%, 4/01/38	1,000	1,049,230
County of Hudson New Jersey, COP, Refunding (NPFGC), 6.25%, 12/01/16	1,500	1,680,780
County of Hudson New Jersey Improvement Authority, RB, Harrison Parking Facility Project, Series C (AGC), 5.38%, 1/01/44	4,800	5,111,952
 Municipal Bonds	 Par (000)	 Value
New Jersey (continued)		
County/City/Special District/School District (concluded)		
County of Union New Jersey Improvement Authority, LRB, Guaranteed Lease, Family Court Building Project, 5.00%, 5/01/42	\$1,650	\$1,808,186
County of Union New Jersey Utilities Authority, Refunding LRB, Resource Recovery Facility, Covanta Union, Inc., Series A, AMT, 5.25%, 12/01/31	670	717,972
County of Union New Jersey Utilities Authority, Refunding RB, Solid Waste System, County Deficiency Agreement, Series A, 5.00%, 6/15/41	4,115	4,433,830

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Monmouth County Improvement Authority, Refunding RB, Government Loan
(AMBAC):

5.00%, 12/01/15	5	5,017
5.00%, 12/01/16	5	5,016
New Jersey EDA, RB, The Goethals Bridge Replacement Project, Private Bond, AMT, 5.00%, 1/01/31	1,000	1,067,900
		31,362,554

Education — 25.7%

New Jersey EDA, RB:

MSU Student Housing Project Provide, 5.75%, 6/01/31	1,000	1,085,240
MSU Student Housing Project Provide, 5.88%, 6/01/42	1,500	1,622,760
The Team Academy Charter School Project, 6.00%, 10/01/33	2,835	3,004,250

New Jersey Educational Facilities Authority, RB:

Higher Educational Capital Improvement Fund, Series A, 5.00%, 9/01/32	3,925	4,320,797
Montclair State University, Series J, 5.25%, 7/01/38	1,140	1,254,410

New Jersey Educational Facilities Authority, Refunding RB:

College of New Jersey, Series D (AGM), 5.00%, 7/01/35	6,115	6,625,480
Georgian Court University, Series D, 5.25%, 7/01/37	1,000	1,022,450
Kean University, Series A, 5.50%, 9/01/36	4,500	5,047,830
Montclair State University, Series A, 5.00%, 7/01/44	6,790	7,387,927

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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 (concluded)		
New Jersey Educational Facilities Authority, Refunding RB (concluded):		
New Jersey Institute of Technology, Series H, 5.00%, 7/01/31	\$1,250	\$1,358,575
Ramapo College, Series B, 5.00%, 7/01/42	340	363,722
Rider University, Series A, 5.00%, 7/01/32	1,000	1,047,140
Rowan University, Series B (AGC), 5.00%, 7/01/24	1,800	2,021,814
Seton Hall University, Series D, 5.00%, 7/01/38	395	425,210
University of Medicine & Dentistry, Series B, 7.13%, 6/01/19 (a)	1,300	1,670,630
University of Medicine & Dentistry, Series B, 7.50%, 6/01/19 (a)	1,625	2,118,171
New Jersey Higher Education Student Assistance Authority, Refunding RB:		
Series 1, AMT, 5.75%, 12/01/29	4,045	4,432,026
Series 1A, 5.00%, 12/01/25	875	918,418
Series 1A, 5.00%, 12/01/26	555	582,539
Series 1A, 5.25%, 12/01/32	900	966,501
New Jersey Institute of Technology, RB, Series A, 5.00%, 7/01/42	4,320	4,621,406
Rutgers - The State University of New Jersey, Refunding RB, Series L, 5.00%, 5/01/43	5,870	6,426,241
		58,323,537
Health — 13.3%		
New Jersey EDA, RB, Masonic Charity Foundation of New Jersey:		
5.25%, 6/01/24	1,425	1,446,218
5.25%, 6/01/32	685	691,953
New Jersey EDA, Refunding RB, First Mortgage, Winchester, Series A:		
5.75%, 11/01/24	2,500	2,513,875
5.80%, 11/01/31	1,000	1,004,190
New Jersey Health Care Facilities Financing Authority, RB:		
Children's Specialized Hospital, Series A, 5.50%, 7/01/36	1,540	1,560,405
Municipal Bonds		
	Par (000)	Value
New Jersey (continued)		
Health (concluded)		
New Jersey Health Care Facilities Financing Authority, RB (concluded):		
Hunterdon Medical Center, Series A, 5.13%, 7/01/35	\$1,950	\$1,983,676
Meridian Health System Obligated Group, Series I (AGC), 5.00%, 7/01/38	955	997,631
Robert Wood Johnson University Hospital, Series A, 5.50%, 7/01/43	1,420	1,552,415
Virtua Health, Series A (AGC), 5.50%, 7/01/38	2,500	2,661,400
New Jersey Health Care Facilities Financing Authority, Refunding RB:		
AHS Hospital Corp., 6.00%, 7/01/41	2,435	2,816,224

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Kennedy Health System, 5.00%, 7/01/31	750	806,115
Meridian Health System Obligated Group, 5.00%, 7/01/25	1,000	1,114,760
Meridian Health System Obligated Group, 5.00%, 7/01/26	830	914,668
Robert Wood Johnson University Hospital, 5.00%, 7/01/31	1,000	1,054,370
South Jersey Hospital, 5.00%, 7/01/36	385	390,663
St. Barnabas Health Care System, Series A, 5.00%, 7/01/29	4,155	4,247,366
St. Barnabas Health Care System, Series A, 5.63%, 7/01/32	1,090	1,182,421
St. Barnabas Health Care System, Series A, 5.63%, 7/01/37	3,030	3,255,917
		30,194,267

Housing — 3.7%

New Jersey Housing & Mortgage Finance Agency, RB:

M/F Housing, Series A, 4.75%, 11/01/29	2,305	2,402,340
S/F Housing, Series AA, 6.50%, 10/01/38	560	565,370
S/F Housing, Series CC, 5.00%, 10/01/34	1,945	2,031,008

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Series AA, 5.50%, 6/15/39	5,520	6,160,982
State of New Jersey, COP, Equipment Lease Purchase, Series A, 5.25%, 6/15/28	1,100	1,204,676
		67,721,317
Transportation — 32.1%		
Delaware River Port Authority of Pennsylvania & New Jersey, RB:		
5.00%, 1/01/40	2,620	2,823,889
Series D, 5.00%, 1/01/40	1,535	1,619,256
New Jersey EDA, RB, Private Activity Bond, The Goethals Bridge Replacement Project, AMT, 5.38%, 1/01/43	8,420	8,863,650
New Jersey State Turnpike Authority, RB:		
Growth & Income Securities, Series B (AMBAC), 0.00%, 1/01/35 (d)	4,870	4,787,648
Series A, 5.00%, 1/01/38	7,000	7,498,470
Series E, 5.25%, 1/01/40	2,525	2,758,537
New Jersey State Turnpike Authority, Refunding RB, Series A, 5.00%, 1/01/35	1,000	1,075,690
New Jersey Transportation Trust Fund Authority, RB:		
CAB, Transportation System, Series C (AMBAC), 0.00%, 12/15/35 (b)	4,140	1,416,956

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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 (concluded):		
Transportation Program, Series AA, 5.25%, 6/15/33	\$5,935	\$6,583,458
Transportation System, 6.00%, 12/15/38	1,950	2,289,047
Transportation System, Series A, 6.00%, 6/15/35	6,030	7,162,675
Transportation System, Series A, 5.88%, 12/15/38	3,650	4,241,811
Transportation System, Series A (AGC), 5.63%, 12/15/28	1,250	1,464,175
Transportation System, Series A (AGC), 5.50%, 12/15/38	1,000	1,147,620
Port Authority of New York & New Jersey, ARB:		
Consolidated, 169th Series, AMT, 5.00%, 10/15/41	250	263,120
Consolidated, 93rd Series, 6.13%, 6/01/94	5,000	5,780,100
JFK International Air Terminal, Series 8, 6.00%, 12/01/42	2,700	2,964,789
Port Authority of New York & New Jersey, Refunding ARB, Consolidated:		
152nd Series, AMT, 5.75%, 11/01/30	3,300	3,671,481
152nd Series, AMT, 5.25%, 11/01/35	240	259,097
166th Series, 5.25%, 7/15/36	4,000	4,460,640
172nd Series, AMT, 5.00%, 10/01/34	1,500	1,609,335
		72,741,444
Utilities — 1.2%		
Rahway Valley Sewerage Authority, RB, CAB, Series A (NPFGC), 0.00%, 9/01/31 (b)	6,000	2,792,640
Total Municipal Bonds — 130.2%		295,178,732

Municipal Bonds Transferred to	Par (000)	Value
Tender Option Bond (TOB) Trusts (e)		
New Jersey — 30.0%		
County/City/Special District/School District — 6.0%		
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	\$13,737,912
Education — 1.0%		
Rutgers - The State University of New Jersey, RB, Series F, 5.00%, 5/01/39	2,009	2,200,347

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State — 7.4%

Garden State Preservation Trust, RB, Election of 2005, Series A (AGM), 5.75%, 11/01/28	5,460	6,942,117
New Jersey EDA, RB, School Facilities Construction (AGC):		
6.00%, 12/15/18 (a)	1,185	1,367,251
6.00%, 12/15/34	2,415	2,788,121
New Jersey EDA, Refunding RB, 5.00%, 3/01/29 (f)	5,230	5,771,247
		16,868,736

Transportation — 15.6%

New Jersey State Turnpike Authority, RB, Series A, 5.00%, 1/01/38 (f)	8,820	9,448,072
New Jersey Transportation Trust Fund Authority, RB, Transportation System:		
Series A (AMBAC), 5.00%, 12/15/32	4,100	4,516,683
Series B, 5.25%, 6/15/36 (f)	5,001	5,427,004
Port Authority of New York & New Jersey, RB, Consolidated, 169th Series, AMT, 5.00%, 10/15/41	11,250	11,840,400
Port Authority of New York & New Jersey, Refunding RB, Consolidated, 152nd Series, AMT, 5.25%, 11/01/35	3,764	4,063,169
		35,295,328

Total Municipal Bonds Transferred to

68,102,323

Tender Option Bond (TOB) Trusts — 30.0%

Total Long-Term Investments

(Cost — \$342,002,681) — 160.2%

363,281,055

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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, 0.00% (g)(h)	355,534	\$355,534
Total Short-Term Securities		355,534
(Cost — \$355,534) — 0.2%		
Total Investments		363,636,589
(Cost — \$342,358,215*) — 160.4%		
Other Assets Less Liabilities — 2.2%		4,767,099
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable — (17.5%)		(39,567,089)
VRDP Shares, at Liquidation Value — (45.1%)		(102,200,000)
Net Assets Applicable to Common Shares — 100.0%		\$226,636,599

* As of April 30, 2014, gross unrealized appreciation and depreciation based on cost for federal income tax purposes were as follows:

Tax cost	\$303,631,235
Gross unrealized appreciation	\$21,993,907
Gross unrealized depreciation	(1,542,072)
Net unrealized appreciation	\$20,451,835

Notes to Schedule of Investments

- 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.
- (a)
- (b)

- (c) Zero-coupon bond. Security is collateralized by municipal or U.S. Treasury obligations. 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 report date.
- (d) Represent bonds transferred to a TOB. In exchange for which the Fund acquired residual interest certificates. These bonds serve as collateral in a financing transaction.
- (e) 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. In the case of a shortfall, 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 \$14,346,748. Investments in issuers considered to be an affiliate of the Fund during the period ended April 30, 2014, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

(g)

Affiliate

Income

Shares Held at July 31, 2013	Net Activity	Shares Held at April 30, 2014	
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BIF New Jersey Municipal Money Fund	3,819,692(3,464,158)	355,534	\$3
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Represents
the current
(h)yield as of
report
date.

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

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 Economic
EDA	Development Authority General
GO	Obligation Bonds Lease
LRB	Revenue Bonds
M/F	Multi-Family National Public
NPFGC	Finance Guarantee Corp.
RB	Revenue Bonds
S/F	Single-Family

•Financial futures contracts outstanding as of April 30, 2014 were as follows:

Contracts Sold	Issue	Exchange	Expiration	Notional Value	Unrealized Depreciation
(201)	10-Year U.S. Treasury Note	Chicago Board of Trade	June 2014	\$25,008,797	\$(23,021)

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.

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

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 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.

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. The categorization of a value determined for investments and derivative financial instruments is based on the pricing transparency of the investment and derivative financial instrument 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, please refer to the Fund's most recent financial statements as contained in its semi-annual report.

The following tables summarize the Fund's investments and derivative financial instruments categorized in the disclosure hierarchy as of April 30, 2014:

	Level 1	Level 2	Level 3	Total
Assets:				
Investments:				
Long-Term Investments ¹	—	\$ 363,281,055	—	\$363,281,055
Short-Term Securities	\$ 355,534	—	—	355,534
Total	\$ 355,534	\$ 363,281,055	—	\$363,636,589

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

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

	Level 1	Level 2	Level 3	Total
Derivative Financial Instruments ²				
Liabilities:				
Interest rate contracts \$	(23,021)	—	—	\$(23,021)

² Derivative financial instruments are financial futures contracts, which are valued at the unrealized appreciation/depreciation on the instrument.

The carrying amount for certain of the Fund's assets and/or liabilities approximates fair value for financial reporting purposes. As of April 30, 2014, 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 \$	308,000	—	—	\$308,000
Liabilities:				
TOB trust certificates	—	\$ (39,553,519)	—	(39,553,519)
VRDP Shares	—	(102,200,000)	—	(102,200,000)
Total	\$ 308,000	\$ (141,753,519)	—	\$(141,445,519)

There were no transfers between levels during the period ended April 30, 2014.

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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.

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: June 23, 2014

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 23, 2014

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of
BlackRock MuniYield New Jersey Fund, Inc.

Date: June 23, 2014