

BLACKROCK MUNIYIELD NEW JERSEY FUND INC  
Form N-Q  
December 22, 2010

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: Anne F. Ackerley, Chief Executive Officer, BlackRock  
MuniYield New Jersey Fund, Inc., 55 East 52<sup>nd</sup> Street, New York, NY 10055

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

Date of fiscal year end: 07/31/2011

Date of reporting period: 10/31/2010

Item 1 Schedule of Investments

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## Schedule of Investments October 31, 2010 (Unaudited)

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

	Par (000)	Value
Municipal Bonds		
<b>New Jersey 125.8%</b>		
<b>Corporate 1.4%</b>		
New Jersey EDA, Refunding RB, New Jersey American Water Co., Inc. Project, Series A, AMT, 5.70%, 10/01/39	\$ 2,925	\$ 3,063,499
<b>County/City/Special District/School District 21.8%</b>		
City of Perth Amboy New Jersey, GO, CAB (AGM) (a):		
5.13%, 7/01/33	1,575	1,499,872
5.13%, 7/01/34	1,925	1,827,653
County of Hudson New Jersey, COP, Refunding (NPFGC), 6.25%, 12/01/16	1,500	1,777,290
Essex County Improvement Authority, Refunding RB, Project Consolidation (NPFGC):		
5.50%, 10/01/28	2,700	3,161,295
5.50%, 10/01/29	5,085	5,920,059
Hudson County Improvement Authority, RB, Harrison Parking Facility Project, Series C (AGC), 5.38%, 1/01/44	4,800	5,196,816
Hudson County Improvement Authority, Refunding RB, Hudson County Lease Project (NPFGC), 5.38%, 10/01/24	4,500	4,514,580
Middlesex County Improvement Authority, RB:		
Golf Course Projects, 5.25%, 6/01/22	1,455	1,626,530
Senior, Heldrich Center Hotel, Series A, 5.00%, 1/01/20	655	360,289
Monmouth County Improvement Authority, RB, Governmental Loan		

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(AMBAC):

5.00%, 12/01/11 (b)	1,020	1,072,275
5.00%, 12/01/11 (b)	1,065	1,119,581
5.00%, 12/01/15	1,215	1,248,655
5.00%, 12/01/16	1,280	1,314,061
Morristown Parking Authority, RB (NPFGC), 4.50%, 8/01/37	585	593,132
Newark Housing Authority, Refunding RB, Newark Redevelopment Project (NPFGC), 4.38%, 1/01/37	2,875	2,839,954

Municipal Bonds	Par (000)	Value
<b>New Jersey (continued)</b>		
County/City/Special District/School District (concluded)		
Salem County Improvement Authority, RB, Finlaw Street Office Building (AGM), 5.38%, 8/15/28	\$ 260	\$ 271,778
Salem County Utilities Authority, Refunding RB, Atlantic City Electric, Series A, 4.88%, 6/01/29	4,550	4,703,517
South Jersey Port Corp., Refunding RB: 4.75%, 1/01/18	4,280	4,454,538
4.85%, 1/01/19	2,485	2,578,759
5.00%, 1/01/20	2,000	2,071,040
		48,151,674
<b>Education 14.5%</b>		
New Jersey EDA, RB, School Facilities Construction:		
Series CC-2, 5.00%, 12/15/31	1,700	1,826,225
Series CC-2, 5.00%, 12/15/32	1,300	1,390,103
Series Y, 5.00%, 9/01/33	880	927,766
New Jersey Educational Facilities Authority, RB:		
Georgian Court College Project, Series C, 6.50%, 7/01/13 (b)	2,000	2,307,120
Montclair State University, Series J, 5.25%, 7/01/38	1,140	1,201,685
Rider University, Series A (Radian),		

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5.50%, 7/01/23 Rider University, Series A (Radian),	1,255	1,297,821
5.25%, 7/01/34 Rider University, Series C (Radian),	1,450	1,430,556
5.00%, 7/01/37 New Jersey Educational Facilities Authority, Refunding RB: College of New Jersey, Series D (AGM), 5.00%, 7/01/35	1,750	1,689,887
Georgian Court University, Series D, 5.25%, 7/01/37	6,115	6,444,965
Rider University (Radian), 5.00%, 7/01/17	1,000	1,002,710
Rowan University, Series B (AGC), 5.00%, 7/01/24	1,000	1,026,590
University of Medicine & Dentistry, Series B, 7.13%, 12/01/23	1,800	1,978,938
University of Medicine & Dentistry, Series B, 7.50%, 12/01/32	1,300	1,537,042
	1,625	1,886,040

### Portfolio Abbreviations

To simplify the listings of portfolio holdings in the Schedules of Investments, the names and descriptions of many of the securities have been abbreviated according to the following list:

AGC	Assured Guaranty Corp.	EDA	Economic Development Authority
AGM	Assured Guaranty Municipal Corp.	FGIC	Financial Guaranty Insurance Co.
AMBAC	American Municipal Bond Assurance Corp.	GO	General Obligation Bonds
AMT	Alternative Minimum Tax (subject to)	NPFGC	National Public Finance Guarantee Corp.
CAB	Capital Appreciation Bonds	RB	Revenue Bonds
COP	Certificates of Participation	S/F	Single-Family

BLACKROCK MUNIYIELD NEW JERSEY FUND, INC.

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## Schedule of Investments(continued)

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
<b>New Jersey (continued)</b>		
<b>Education (concluded)</b>		
New Jersey Higher Education Assistance Authority, Refunding RB, Series 1A:		
5.00%, 12/01/25	\$ 1,035	\$ 1,066,205
5.00%, 12/01/26	645	662,996
5.25%, 12/01/32	900	931,518
New Jersey State Higher Education Assistance Authority, RB, Series A, AMT (AMBAC), 5.30%, 6/01/17	3,170	3,174,470
		31,782,637
<b>Health 17.0%</b>		
New Jersey EDA, RB: CAB, St. Barnabas Health, Series A (NPFGC), 6.25%, 7/01/24 (c)	3,850	1,528,912
Masonic Charity Foundation of New Jersey, 5.25%, 6/01/24	1,425	1,454,597
Masonic Charity Foundation of New Jersey, 5.25%, 6/01/32	685	685,521
New Jersey EDA, Refunding RB, First Mortgage, Winchester, Series A:		
5.75%, 11/01/24	2,500	2,532,025
5.80%, 11/01/31	1,000	1,009,220
New Jersey Health Care Facilities Financing Authority, RB: Children's Specialized Hospital, Series A, 5.50%, 7/01/36	1,540	1,537,767
Health System, Catholic Health East, Series A, 5.38%, 11/15/12 (b)	1,100	1,208,339
Hospital Asset Transformation Program, Series A, 5.25%, 10/01/38	2,300	2,401,338
Hunterdon Medical Center, Series A,		

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5.13%, 7/01/35	1,950	1,948,499
Meridian Health, Series I (AGC),		
5.00%, 7/01/38	995	1,026,920
Pascack Valley Hospital Association,		
6.63%, 7/01/36 (d)(e)	1,845	18
Southern Ocean County Hospital		
(Radian), 5.13%, 7/01/31	2,000	1,891,380
Virtua Health (AGC), 5.50%,		
7/01/38	2,500	2,711,325
New Jersey Health Care Facilities		
Financing Authority, Refunding RB:		
Atlantic City Medical Center, 6.25%,		
7/01/12 (b)	500	546,575
Atlantic City Medical System,		
6.25%, 7/01/17	520	547,076
Atlantic City Medical System,		
5.75%, 7/01/25	520	534,206
CAB, St. Barnabas Health, Series B,		
5.90%, 7/01/30 (c)	2,000	501,200
CAB, St. Barnabas Health, Series B,		
5.69%, 7/01/36 (c)	500	80,545
CAB, St. Barnabas Health, Series B,		
5.18%, 7/01/37 (c)	13,250	1,878,453
Capital Health System Obligation		
Group, Series A, 5.75%,		
7/01/13 (b)	1,650	1,845,426
Meridian Health System Obligation		
Group (AGM), 5.38%, 7/01/24	2,250	2,252,093
Meridian Health System Obligation		
Group (AGM), 5.25%, 7/01/29	2,195	2,196,120

	Par	Value
Municipal Bonds	(000)	
<b>New Jersey (continued)</b>		
<b>Health (concluded)</b>		
New Jersey Health Care Facilities		
Financing Authority, Refunding RB :		
Robert Wood Johnson, 5.00%,		
7/01/31	\$ 1,425	\$ 1,455,395
South Jersey Hospital, 5.00%,		

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7/01/36	385	387,429
South Jersey Hospital, 5.00%,		
7/01/46	1,650	1,651,419
St. Barnabas Health Care System,		
Series A, 5.00%, 7/01/29	4,155	3,502,083
		37,313,881
<b>Housing 16.5%</b>		
New Jersey State Housing & Mortgage		
Finance Agency, RB:		
Capital Fund Program, Series A		
(AGM), 4.70%, 11/01/25	6,950	7,151,620
Home Buyer, Series CC' AMT		
(NPFGC), 5.80%, 10/01/20	4,515	4,706,526
S/F Housing, Series CC, 5.00%,		
10/01/34	3,455	3,545,625
S/F Housing, Series U, AMT, 4.95%,		
10/01/32	700	708,421
S/F Housing, Series U, AMT, 5.00%,		
10/01/37	1,000	1,013,660
S/F Housing, Series X, AMT, 4.85%,		
4/01/16	3,605	3,794,515
S/F Housing, Series X, AMT, 5.05%,		
4/01/18	600	637,746
Series A, 4.75%, 11/01/29	2,305	2,348,979
Series A, AMT (FGIC), 4.90%,		
11/01/35	1,365	1,365,437
Series AA, 6.50%, 10/01/38	1,735	1,877,825
New Jersey State Housing & Mortgage		
Finance Agency, Refunding RB, S/F		
Housing, Series T, AMT, 4.65%,		
10/01/32	4,945	4,950,291
Newark Housing Authority, RB, South		
Ward Police Facility (AGC):		
5.75%, 12/01/30	1,115	1,219,721
6.75%, 12/01/38	2,670	3,073,090
		36,393,456
<b>State 35.0%</b>		
Garden State Preservation Trust, RB		
(AGM):		
CAB, Series B, 5.12%, 11/01/23 (c)	6,860	4,159,081
CAB, Series B, 5.24%, 11/01/28 (c)	4,540	2,095,619

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Election of 2005, Series A, 5.80%, 11/01/22	4,300	5,063,379
New Jersey EDA, RB: Department of Human Services, Pooled, 5.00%, 7/01/12	220	234,137
Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/24	1,415	1,571,386
Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/25	2,000	2,214,260
Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/33	14,000	14,427,280
School Facilities Construction, Series L (AGM), 5.00%, 3/01/30	5,800	6,047,428
School Facilities Construction, Series O, 5.25%, 3/01/23	2,400	2,633,304

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Schedule of Investments<sup>(continued)</sup>

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

	Par (000)	Value
Municipal Bonds		
<b>New Jersey (continued)</b>		
<b>State (concluded)</b>		
New Jersey EDA, RB :		
School Facilities Construction, Series P, 5.00%, 9/01/15	\$ 3,000	\$ 3,423,450
School Facilities Construction, Series P, 5.25%, 9/01/16	2,710	3,110,159
School Facilities Construction, Series Z (AGC), 5.50%, 12/15/34	3,665	4,065,365
School Facilities Construction, Series Z (AGC), 6.00%, 12/15/34	3,600	4,125,312
New Jersey EDA, Refunding RB: New Jersey American Water Co., Inc. Project, Series B, AMT, 5.60%, 11/01/34	2,430	2,563,699
School Facilities Construction, Series AA, 5.50%, 12/15/29	3,300	3,688,641
New Jersey Transportation Trust Fund Authority, RB, Transportation System: CAB, Series C (AMBAC), 5.05%, 12/15/35 (c)	4,140	968,884
Series A, 6.00%, 12/15/38	2,900	3,286,019
Series A (AGC), 5.63%, 12/15/28	1,250	1,418,462
New Jersey Transportation Trust Fund Authority, Refunding RB, Transportation System: Series A, 5.50%, 12/15/21	3,525	4,075,957
Series B (NPFGC), 5.50%, 12/15/21	5,865	6,781,699
State of New Jersey, COP, Equipment Lease Purchase, Series A, 5.25%, 6/15/28	1,100	1,175,427
		77,128,948

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Tobacco 1.1%

Tobacco Settlement Financing Corp.

New Jersey, Refunding RB, Series 1A,

4.50%, 6/01/23

2,635

2,466,044

Transportation 13.6%

New Jersey State Turnpike Authority, RB:

Growth & Income Securities,

Series B (AMBAC), 5.22%,

1/01/35 (a)

4,870

4,050,817

Series E, 5.25%, 1/01/40

5,475

5,912,124

New Jersey Transportation Trust Fund

Authority, RB, Transportation System,

Series A:

5.88%, 12/15/38

3,050

3,394,101

(AGC), 5.50%, 12/15/38

1,000

1,106,820

New Jersey Transportation Trust Fund

Authority, Refunding RB,

Transportation System, Series B

(AMBAC), 5.25%, 12/15/23

5,000

5,628,900

Port Authority of New York & New Jersey,

RB, Consolidated, 93rd Series, 6.13%,

6/01/94

5,000

6,093,500

Port Authority of New York & New Jersey,

Refunding RB, Consolidated, 152nd

Series, AMT, 5.75%, 11/01/30

3,300

3,673,065

29,859,327

	Par	
Municipal Bonds	(000)	Value

New Jersey (concluded)

Utilities 4.9%

Cumberland County Improvement

Authority, RB, Series A, 5.00%,

1/01/30

\$ 1,210

\$ 1,236,789

New Jersey EDA, Refunding RB, United

Water of New Jersey Inc., Series B

(AMBAC), 4.50%, 11/01/25

4,500

4,777,290

Rahway Valley Sewerage Authority, RB,

CAB, Series A (NPFGC), 4.87%,

9/01/31 (c)

6,000

1,960,260

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Union County Utilities Authority,		
Refunding RB, Senior Lease, Ogden		
Martin, Series A, AMT (AMBAC):		
5.38%, 6/01/17	1,585	1,586,839
5.38%, 6/01/18	1,175	1,176,081
		10,737,259
Total Municipal Bonds in New Jersey		276,896,725
<b>Pennsylvania 0.7%</b>		
<b>Transportation 0.7%</b>		
Delaware River Port Authority, RB,		
Series D, 5.00%, 1/01/40	1,535	1,600,268
<b>Puerto Rico 9.8%</b>		
<b>County/City/Special District/School District 4.1%</b>		
Puerto Rico Sales Tax Financing Corp.,		
Refunding RB, First Sub-Series C:		
6.00%, 8/01/39	3,320	3,737,390
(AGM), 5.13%, 8/01/42	5,000	5,256,300
		8,993,690
<b>Housing 0.8%</b>		
Puerto Rico Housing Finance Authority,		
Refunding RB, Subordinate, Capital		
Fund Modernization, 5.13%,		
12/01/27	1,645	1,684,842
<b>State 2.9%</b>		
Puerto Rico Sales Tax Financing Corp.,		
RB, First Sub-Series A, 5.75%,		
8/01/37	6,000	6,514,740
<b>Transportation 1.5%</b>		
Puerto Rico Highway & Transportation		
Authority, Refunding RB, Series CC		
(AGC), 5.50%, 7/01/31	3,000	3,353,220
<b>Utilities 0.5%</b>		
Puerto Rico Electric Power Authority, RB,		
Series WW, 5.50%, 7/01/38	1,000	1,050,960
Total Municipal Bonds in Puerto Rico		21,597,452
<b>U.S. Virgin Islands 1.6%</b>		
<b>Corporate 1.6%</b>		
United States Virgin Islands, Refunding		
RB, Senior Secured, Hovensa Coker		
Project, AMT, 6.50%, 7/01/21	3,500	3,560,725
Total Municipal Bonds 137.9%		303,655,170

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## Schedule of Investments<sup>(concluded)</sup>

BlackRock MuniYield New Jersey Fund, Inc. (MYJ)

(Percentages shown are based on Net Assets)

Municipal Bonds Transferred to Tender	Par	Value
Option Bond Trusts (f)	(000)	
New Jersey 6.8%		
<b>State 3.1%</b>		
Garden State Preservation Trust, RB, Election of 2005, Series A (AGM), 5.75%, 11/01/28	\$ 5,460	\$ 6,749,270
<b>Transportation 3.7%</b>		
New Jersey Transportation Trust Fund Authority, RB, Transportation System, Series A (AGM), 5.00%, 12/15/32	4,100	4,318,120
Port Authority of New York & New Jersey, Refunding RB, Consolidated, 152nd Series, AMT, 5.25%, 11/01/35	3,764	3,929,700
		8,247,820
Total Municipal Bonds Transferred to Tender Option Bond Trusts 6.8%		14,997,090
Total Long-Term Investments (Cost \$305,437,915) 144.7%		318,652,260
Short-Term Securities	Shares	
BIF New Jersey Municipal Money Fund, 0.04%, (g)(h)	5,158,507	5,158,507
Total Short-Term Securities (Cost \$5,158,507) 2.3%		5,158,507
Total Investments (Cost \$310,596,422*) 147.0%		323,810,767
Other Assets Less Liabilities 3.3%		7,269,952
Liabilities for Trust Certificates, Including Interest Expense and Fees Payable (3.9)%		(8,665,273)
Preferred Shares, at Redemption Value (46.4)%		(102,208,917)
Net Assets Applicable to Common Shares 100.0%		\$ 220,206,529

\* The cost and unrealized appreciation (depreciation) of investments as of

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October 31, 2010, as computed for federal income tax purposes, were

as follows:

Aggregate cost	\$ 301,435,990
Gross unrealized appreciation	\$ 17,636,070
Gross unrealized depreciation	\$ (3,914,994)
Net unrealized appreciation	13,721,076

(a) 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 reflects the current yield as of report date.

(b) US 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) Represents a zero-coupon bond. Rate shown reflects the current yield as of report date.

(d) Issuer filed for bankruptcy and/or is in default of interest payments.

(e) Non-income producing security.

(f) Securities represent bonds transferred to a tender option bond trust in exchange for which the Fund acquired residual interest certificates.

These securities serve as collateral in a financing transaction.

(g) Investments in companies considered to be an affiliate of the Fund during the period, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

	Shares Held at July 31, 2010	Net Activity	Shares Held at October 31, 2010	Income
Affiliate				
BIF New Jersey				
Municipal				
Money Fund	11,162,403	(6,003,896)	5,158,507	\$ 520

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

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 Fund management. This definition 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, which are as follows:

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Level 1 price quotations in active markets/exchanges for identical assets and liabilities

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)

The inputs or methodologies used for valuing securities are not necessarily an indication of the risk associated with investing in those securities. For information about the Fund's policy regarding valuation of investments and other significant accounting policies, please refer to the Fund's most recent financial statements as contained in its annual report.

The following table summarizes the inputs used as of October 31, 2010 in determining the fair valuation of the Fund's investments:

Valuation Inputs	Level 1	Level 2	Level 3	Total
Assets:				
Investments in Securities:				
Long-Term				
Investments <sup>1</sup>		\$318,652,260		\$ 318,652,260
Short-Term				
Securities	\$ 5,158,507			5,158,507
Total	\$ 5,158,507	\$318,652,260		\$ 323,810,767

<sup>1</sup> See above Schedule of Investments for values in each sector.

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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/ Anne F. Ackerley

Anne F. Ackerley

Chief Executive Officer of

BlackRock MuniYield New Jersey Fund, Inc.

Date: December 22, 2010

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/ Anne F. Ackerley

Anne F. Ackerley

Chief Executive Officer (principal executive officer) of

BlackRock MuniYield New Jersey Fund, Inc.

Date: December 22, 2010

By: /s/ Neal J. Andrews

Neal J. Andrews

Chief Financial Officer (principal financial officer) of

BlackRock MuniYield New Jersey Fund, Inc.

Date: December 22, 2010