

BLACKROCK MUNIENHANCED FUND, INC.

Form N-Q

March 25, 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: 811-05739

Name of Fund: BlackRock MuniEnhanced Fund, Inc. (MEN)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: John M. Perlowski, Chief Executive Officer, BlackRock MuniEnhanced 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: 04/30/2015

Date of reporting period: 01/31/2015

Item 1 Schedule of Investments

Schedule of Investments January 31, 2015 (Unaudited)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Alabama 1.3%		
County of Jefferson Alabama, RB, Limited Obligation School, Series A: 5.50%, 1/01/22	\$ 2,750	\$ 2,784,375
4.75%, 1/01/25	2,200	2,200,176
		4,984,551
Alaska 0.8%		
Alaska Housing Finance Corp., RB, General Housing, Series B (NPFGC), 5.25%, 12/01/30	400	406,980
Alaska Industrial Development & Export Authority, RB, Providence Health Services, Series A, 5.50%, 10/01/41	990	1,148,935
Borough of Matanuska-Susitna Alaska, RB, Goose Creek Correctional Center (AGC), 6.00%, 9/01/28	1,200	1,453,068
		3,008,983
Arizona 1.3%		
Greater Arizona Development Authority, RB, Series B (NPFGC), 5.00%, 8/01/35	1,300	1,327,352
State of Arizona, COP, Department of Administration, Series A (AGM): 5.00%, 10/01/27	2,700	3,068,847
5.00%, 10/01/29	400	453,756
		4,849,955
Arkansas 0.1%		
Pulaski County Public Facilities Board, RB, 5.00%, 12/01/42	390	451,320
California 18.6%		
Alameda Corridor Transportation Authority, Refunding RB, CAB, Subordinate Lien, Series A (AMBAC):		
5.40%, 10/01/24	10,185	11,041,660
5.45%, 10/01/25	3,700	4,007,729
Anaheim Public Financing Authority California, RB, Senior, Public Improvements Project, Series A (AGM), 6.00%, 9/01/24	5,000	6,106,000
Cabrillo Community College District, GO, CAB, Election of 2004, Series B (NPFGC), 0.00%, 8/01/37 (a)	2,400	831,624
	Par	
Municipal Bonds		
California (continued)		
California Health Facilities Financing Authority, RB: St. Joseph Health System, Series A, 5.75%, 7/01/39	\$ 550	\$ 646,250
Sutter Health, Series B, 5.88%, 8/15/31	1,200	1,447,752
California Health Facilities Financing Authority, Refunding RB, St. Joseph's Health System, Series A, 5.00%, 7/01/37	1,090	1,274,079
California Statewide Communities Development Authority, RB, Kaiser Permanente, Series A, 5.00%, 4/01/42	1,480	1,675,982
City of Redding California, COP, Refunding, Series A (AGM), 5.00%, 6/01/30	1,420	1,586,736
City of San Jose California, Refunding ARB, Series A-1, AMT, 5.75%, 3/01/34	850	985,269
County of Orange California Sanitation District, COP, Series B (AGM) (b): 5.00%, 2/01/17	1,500	1,635,900
5.00%, 2/01/17	900	981,540
County of San Joaquin California Transportation Authority, Refunding RB, Limited Tax, Measure K, Series A, 6.00%, 3/01/36	2,175	2,686,408
Los Angeles Community College District California, GO, Election of 2001, Series A (AGM), 5.00%, 8/01/17 (b)	1,300	1,444,105
Mount San Antonio Community College District, GO, Refunding, CAB, Election of 2008, Series A, 6.25%, 8/01/43 (c)	2,500	1,802,300
Poway Unified School District, GO, Refunding, CAB, School Facilities Improvement, Election of 2008, Series B, 0.00%, 8/01/36 (a)	3,750	1,637,775
Rio Hondo Community College District California, GO, CAB, Election of 2004, Series C, 0.00%, 8/01/38 (a)	5,000	2,054,250

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San Diego California Unified School District, GO, CAB, Election of 2008 (a):

Series C, 0.00%, 7/01/38	1,600	658,048
Series G, 0.00%, 7/01/34	650	275,964
Series G, 0.00%, 7/01/35	690	276,862

BLACKROCK MUNIENHANCED FUND, INC.

JANUARY 31, 2015

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Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

	Par	
	(000)	Value
Municipal Bonds		
California (concluded)		
San Diego California Unified School District, GO, CAB, Election of 2008 (a) (concluded):		
Series G, 0.00%, 7/01/36	\$ 1,035	\$ 388,384
Series G, 0.00%, 7/01/37	690	243,943
San Diego California Unified School District, GO, Refunding, CAB, Series R-1 (a):		
Election of 2008, 0.00%, 7/01/31	1,280	720,589
0.00%, 7/01/30	5,000	2,941,650
San Diego Community College District California, GO, CAB, Election of 2006 (a):		
0.00%, 8/01/31	2,145	1,020,355
0.00%, 8/01/32	2,680	1,185,284
San Marcos Unified School District, GO, Election of 2010, Series A:		
5.00%, 8/01/34	700	823,487
5.00%, 8/01/38	600	697,908
San Mateo County Community College District, GO, CAB, Election of 2001, Series C (NPFGC), 0.00%, 9/01/30 (a)	12,740	7,767,450
State of California, GO, Refunding, Various Purpose, 5.00%, 10/01/41	1,000	1,148,690
State of California, GO, Various Purpose, 5.00%, 4/01/42	1,000	1,153,200
State of California Public Works Board, LRB, Various Judicial Council Projects, Series A, 5.00%, 3/01/38	710	821,200
Walnut Valley Unified School District, GO, CAB, Election of 2007, Series B, 0.00%, 8/01/36 (a)	5,500	2,372,315
West Basin Municipal Water District California, COP, Refunding, Series B (AGC), 5.00%, 8/01/30	5,035	5,633,410
		69,974,098
Colorado 1.6%		
Regional Transportation District, COP, Refunding, Series A, 5.38%, 6/01/31	2,000	2,341,900
	Par	
Municipal Bonds		
Colorado (concluded)		
Regional Transportation District, COP, Series A, 5.00%, 6/01/39	\$ 3,065	\$ 3,536,029
		5,877,929
District of Columbia 1.5%		
District of Columbia, RB, Series B-1 (NPFGC), 5.00%, 2/01/31	5,480	5,670,704
Florida 10.1%		
City of Lakeland Florida, RB, Regional Health, 5.00%, 11/15/40 (d)	1,600	1,837,488
County of Broward Florida Water & Sewer Utility, Refunding RB, Series A, 5.25%, 10/01/34	850	963,288
County of Collier Florida School Board, COP, (AGM), 5.00%, 2/15/16 (b)	3,000	3,149,220
County of Duval Florida School Board, COP, Master Lease Program (AGM), 5.00%, 7/01/33	2,625	2,847,075
County of Highlands Florida Health Facilities Authority, RB, Adventist Health System/Sunbelt, Series B, 6.00%, 11/15/37	1,450	1,727,066
County of Hillsborough Florida Aviation Authority, RB, Series A, AMT (AGC), 5.38%, 10/01/33	4,050	4,556,817
County of Lee Florida, Refunding ARB, Series A, AMT:		
5.63%, 10/01/26	960	1,146,384
5.38%, 10/01/32	3,160	3,577,657
County of Miami-Dade Florida, GO, Building Better Communities Program, Series B-1, 5.75%, 7/01/33	1,400	1,607,956
County of Miami-Dade Florida, RB, Seaport Department:		
Series A, 6.00%, 10/01/38	2,025	2,513,592
Series B, AMT, 6.00%, 10/01/30	640	798,323
Series B, AMT, 6.25%, 10/01/38	415	520,875
Series B, AMT, 6.00%, 10/01/42	660	806,744
County of Miami-Dade Florida Aviation, Refunding ARB, AMT:		
5.00%, 10/01/34	190	219,954
Miami International Airport, Series A (AGC), 5.00%, 10/01/40	3,900	4,205,721

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Florida (concluded)		
County of Palm Beach Florida Solid Waste Authority, Refunding RB, 5.00%, 10/01/31	\$ 2,000	\$ 2,370,760
County of Sarasota Florida Public Hospital District, RB, Sarasota Memorial Hospital Project, Series A, 5.63%, 7/01/39	275	310,863
Florida Ports Financing Commission, Refunding RB, State Transportation Trust Fund, Series B, AMT: 5.13%, 6/01/27	2,000	2,302,440
5.38%, 10/01/29	1,050	1,231,503
South Florida Water Management District, COP, (AGC), 5.00%, 10/01/22	1,000	1,077,190
		37,770,916
Georgia 3.6%		
County of Burke Georgia Development Authority, Refunding RB, Oglethorpe Power-Vogtle Project, Series C, 5.70%, 1/01/43	1,150	1,266,070
County of Gainesville Georgia & Hall Hospital Authority, Refunding RB, Northeast Georgia Health System, Inc. Project, Series A, 5.50%, 8/15/54	500	598,090
Municipal Electric Authority of Georgia, Refunding RB, Series EE (AMBAC), 7.00%, 1/01/25	7,475	10,574,957
Private Colleges & Universities Authority, RB, Savannah College of Art & Design: 5.00%, 4/01/31	190	217,309
5.00%, 4/01/33	140	159,167
5.00%, 4/01/44	625	704,756
		13,520,349
Illinois 21.3%		
City of Chicago Illinois, GARB, O Hare International Airport, 3rd Lien: Series A, 5.75%, 1/01/39	5,110	6,046,203
Series B-2, AMT (Syncora), 6.00%, 1/01/29	1,460	1,466,453
City of Chicago Illinois, GO, Refunding, Series A: 5.25%, 1/01/33	2,700	2,936,223
5.00%, 1/01/34	5,750	6,137,607
	Par	
Municipal Bonds		
Illinois (continued)		
City of Chicago Illinois, GO, 5.25%, 1/01/35	\$ 400	\$ 426,544
City of Chicago Illinois, Refunding RB, Sales Tax Receipts, Series A, 5.00%, 1/01/41	3,425	3,771,370
City of Chicago Illinois Park District, GO, Harbor Facilities Revenue, Series C, 5.25%, 1/01/40	550	610,038
City of Chicago Illinois Transit Authority, RB: 5.25%, 12/01/49	900	1,057,995
Sales Tax Receipts, 5.25%, 12/01/36	595	690,319
County of Cook Illinois Forest Preserve District, GO, Refunding, Limited Tax Project, Series B, 5.00%, 12/15/37	285	325,082
County of Cook Illinois Forest Preserve District, GO, Series C, 5.00%, 12/15/37		
Illinois Finance Authority, RB, Carle Foundation, Series A: 5.75%, 8/15/34	650	755,027
6.00%, 8/15/41	1,000	1,181,540
Illinois HDA, RB, Liberty Arms Senior Apartments, M/F Housing, Series D, AMT (AMBAC), 4.88%, 7/01/47	2,125	2,132,098
Illinois Municipal Electric Agency, RB, Series A (NPFGC), 5.25%, 2/01/35	1,000	1,075,150
Illinois Sports Facilities Authority, RB, State Tax Supported (AMBAC): 5.50%, 6/15/15 (b)	5,130	5,282,977
5.50%, 6/15/30	12,490	12,837,097
Kane McHenry Cook & De Kalb Counties Unit School District No. 300, GO, Refunding, 5.25%, 1/01/33	9,145	10,797,501
Metropolitan Pier & Exposition Authority, RB, CAB, McCormick Place Explosion Project, Series A (NPFGC) (a): 0.00%, 12/15/26	5,000	3,316,400
0.00%, 12/15/33	9,950	4,574,214
Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Expansion Project, Series B: CAB (AGM), 0.00%, 6/15/44 (a)	3,450	941,540

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4.25%, 6/15/42

1,070

1,116,545

BLACKROCK MUNIENHANCED FUND, INC.

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Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Illinois (concluded)		
Railsplitter Tobacco Settlement Authority, RB, 6.00%, 6/01/28	\$ 675	\$ 808,387
Regional Transportation Authority, RB, Series A (AMBAC), 7.20%, 11/01/20	6,455	7,621,096
State of Illinois, GO:		
5.25%, 2/01/33	830	925,052
5.50%, 7/01/33	820	938,679
5.25%, 2/01/34	830	923,043
5.50%, 7/01/38	445	506,272
University of Illinois, RB, Auxiliary Facilities System, Series A, 5.00%, 4/01/39	905	1,044,415
		80,244,867
Indiana 1.5%		
Indiana Finance Authority, RB, Series A:		
CWA Authority Project, 1st Lien, 5.25%, 10/01/38	1,100	1,295,965
Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/44	515	563,822
Private Activity Bond, Ohio River Bridges, AMT, 5.00%, 7/01/40	890	977,745
Indianapolis Local Public Improvement Bond Bank, Refunding RB, Waterworks Project, Series A (AGC):		
5.25%, 1/01/29	600	676,050
5.50%, 1/01/38	1,825	2,077,927
		5,591,509
Iowa 3.4%		
Iowa Finance Authority, RB, Iowa Health Care Facilities, Series A (AGC), 5.63%, 8/15/37	5,725	6,636,363
Iowa Student Loan Liquidity Corp., RB, Senior Series A-2, AMT:		
5.60%, 12/01/26	2,725	2,936,787
5.70%, 12/01/27	1,235	1,324,241
5.80%, 12/01/29	835	896,723
Municipal Bonds		
Iowa (concluded)		
Iowa Student Loan Liquidity Corp., RB, Senior Series A-2, AMT (concluded):		
5.85%, 12/01/30	\$ 870	\$ 935,033
		12,729,147
Louisiana 0.8%		
Louisiana Local Government Environmental Facilities & Community Development Authority, RB:		
East Baton Rouge Sewerage Commission Projects, Sub-Lien, Series A, 5.00%, 2/01/43	530	606,543
Lctcs Act 360 Project, 5.00%, 10/01/39	790	933,369
Louisiana Public Facilities Authority, Refunding RB, Christus Health, Series B (AGC), 6.50%, 7/01/30	1,250	1,452,287
		2,992,199
Massachusetts 1.5%		
Massachusetts HFA, Refunding RB, Series C, AMT, 5.35%, 12/01/42	1,150	1,219,713
Massachusetts School Building Authority, RB, Dedicated Sales Tax, Senior, Series A, 5.00%, 5/15/43	1,280	1,497,357
Massachusetts Water Resources Authority, Refunding RB, General, Series A (NPFGC), 5.00%, 8/01/34	2,700	2,953,638
		5,670,708
Michigan 2.3%		
City of Detroit Michigan Sewage Disposal System, Refunding RB, 2nd Lien, Series E (BHAC), 5.75%, 7/01/31	2,500	2,793,375
City of Detroit Michigan Water Supply System, RB, 2nd Lien, Series B (AGM), 6.25%, 7/01/36	400	448,316
City of Lansing Michigan, RB, Board of Water & Light Utilities System, Series A, 5.50%, 7/01/41	1,700	2,042,584
State of Michigan Building Authority, Refunding RB, Facilities Program:		
Series I-A, 5.38%, 10/15/36	145	167,540

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
Michigan (concluded)		
State of Michigan Building Authority, Refunding RB, Facilities Program (concluded):		
Series I-A, 5.38%, 10/15/41	\$ 700	\$ 812,063
Series II-A (AGM), 5.25%, 10/15/36	900	1,038,132
State of Michigan HDA, RB, S/F Housing, Series C, AMT, 5.50%, 12/01/28	790	854,796
Western Michigan University, Refunding RB, AGM, General, 5.00%, 11/15/39	380	436,749
		8,593,555
Minnesota 0.8%		
City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series B (AGC), 6.50%, 11/15/38	2,500	2,960,400
Nebraska 1.7%		
Central Plains Energy Project Nebraska, RB, Gas Project No. 3, 5.25%, 9/01/37	750	850,110
Central Plains Nebraska Energy Project, RB, Gas Project No. 3, 5.00%, 9/01/32	5,000	5,637,700
		6,487,810
Nevada 1.6%		
City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Center, 6.00%, 4/01/34	850	1,000,832
County of Clark Nevada, ARB, Las Vegas-McCarran International Airport, Series A: 5.25%, 7/01/42	500	572,235
(AGM), 5.25%, 7/01/39	3,800	4,350,886
County of Clark Nevada, RB, Southwest Gas Corp. Project, Series A, AMT (NPFGC), 4.75%, 9/01/36	75	76,119
		6,000,072
New Jersey 10.2%		
New Jersey EDA, RB:		
Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/31	3,125	3,184,406
Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/33	7,800	7,948,278
Municipal Bonds		
New Jersey (concluded)		
New Jersey EDA, RB (concluded):		
Private Activity Bond, The Goethals Bridge Replacement Project, AMT, 5.13%, 1/01/34	\$ 685	\$ 767,960
School Facilities Construction (AGC), 6.00%, 12/15/18 (b)	1,975	2,358,150
School Facilities Construction (AGC), 6.00%, 12/15/34	25	29,317
School Facilities Construction, Series UU, 5.00%, 6/15/34	570	637,813
School Facilities Construction, Series UU, 5.00%, 6/15/40	1,420	1,582,917
The Goethals Bridge Replacement Project, AMT, 5.38%, 1/01/43	895	1,005,810
New Jersey Educational Facilities Authority, RB, Higher Educational Capital Improvement Fund, Series A, 5.00%, 9/01/26	795	920,364
New Jersey Higher Education Student Assistance Authority, Refunding RB, Series 1, AMT: 5.50%, 12/01/26	600	683,772
5.75%, 12/01/27	3,870	4,434,749
New Jersey Housing & Mortgage Finance Agency, Refunding RB, M/F Housing, Series 2, AMT, 4.35%, 11/01/33	1,230	1,297,834
New Jersey Transportation Trust Fund Authority, RB:		
Transportation Program, Series AA, 5.25%, 6/15/33	1,460	1,680,621
Transportation Program, Series AA, 5.00%, 6/15/38	1,760	1,954,515
Transportation System, CAB, Series A, 0.00%, 12/15/29 (a)	4,360	2,312,152
Transportation System, Series A, 5.50%, 6/15/41	2,000	2,305,640
Transportation System, Series AA, 5.50%, 6/15/39	1,150	1,341,095
Transportation System, Series B, 5.00%, 6/15/42	3,500	3,803,765
		38,249,158
New York 5.3%		
City of New York New York Municipal Water Finance Authority, Refunding RB, Second General Resolution, Fiscal 2012, Series BB, 5.25%, 6/15/44	1,425	1,668,133

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

	Par (000)	Value
Municipal Bonds		
New York (concluded)		
City of New York New York Transitional Finance Authority, BARB, Fiscal 2009, Series S-4, 5.50%, 1/15/33	\$ 1,600	\$ 1,864,032
City of New York New York Transitional Finance Authority, RB, Fiscal 2009, Series S-4, 5.50%, 1/15/34	2,750	3,203,805
City of New York New York Transitional Finance Authority, Refunding RB, Future Tax Secured, Series B, 5.00%, 11/01/32	1,480	1,759,898
County of Erie New York Industrial Development Agency, RB, City School District of Buffalo, Series A (AGM), 5.75%, 5/01/28	1,500	1,656,540
Hudson Yards Infrastructure Corp., RB, Senior, Fiscal 2012, Series A, 5.75%, 2/15/47	700	822,997
Metropolitan Transportation Authority, RB, Series C, 6.50%, 11/15/28	4,000	4,833,120
State of New York Dormitory Authority, ERB, Series B, 5.75%, 3/15/36	1,200	1,410,288
State of New York HFA, RB, Affordable M/F Housing, Series B, AMT, 5.30%, 11/01/37	2,500	2,605,625
		19,824,438
Ohio 1.4%		
American Municipal Power Inc, Refunding RB, Series A, 5.00%, 2/15/42	350	403,571
County of Lucas Ohio, Refunding RB, Promedica Healthcare, Series A, 6.50%, 11/15/37	530	672,257
State of Ohio Turnpike Commission, RB, CAB, Junior Lien, Infrastructure Projects, Series A-2, 0.00%, 2/15/37 (a)	10,000	4,240,800
		5,316,628
Pennsylvania 1.2%		
Commonwealth Financing Authority, RB, Series B, 5.00%, 6/01/42	1,600	1,822,816
Pennsylvania Turnpike Commission, RB: Series A, 5.00%, 12/01/38	620	727,229
Series C, 5.50%, 12/01/33	555	680,819
	Par	
Municipal Bonds		
Pennsylvania (concluded)		
Pennsylvania Turnpike Commission, RB (concluded): Subordinate, Special Motor License Fund, 6.00%, 12/01/36	\$ 575	\$ 692,720
Philadelphia School District, GO, Series E: 6.00%, 9/01/18 (b)	5	5,913
6.00%, 9/01/38	395	450,975
		4,380,472
South Carolina 6.8%		
Charleston Educational Excellence Finance Corp., RB, (AGC) (b): 5.25%, 12/01/15	3,120	3,252,506
5.25%, 12/01/15	2,765	2,882,430
5.25%, 12/01/15	1,010	1,052,895
South Carolina Jobs EDA, Refunding RB, Palmetto Health, Series A (AGM), 6.50%, 8/01/39	115	139,300
South Carolina Transportation Infrastructure Bank, RB, Series A, 5.25%, 10/01/40	3,000	3,436,110
State of South Carolina Public Service Authority, RB, Santee Cooper: Series A, 5.50%, 12/01/54	8,725	10,410,844
Series E, 5.50%, 12/01/53	745	882,281
State of South Carolina Public Service Authority, Refunding RB, Santee Cooper: Series A, 5.50%, 1/01/38	1,000	1,150,040
Series B, 5.00%, 12/01/38	2,080	2,412,821
		25,619,227
Tennessee 2.1%		
Memphis Center City Revenue Finance Corp., RB, Pyramid & Pinch District, Series B (AGM), 5.25%, 11/01/30	1,730	2,054,704
	5,000	5,925,250

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Metropolitan Government of Nashville & Davidson County Health & Educational Facilities Board,
Refunding RB, Vanderbilt University, Series B, 5.50%, 10/01/29

		7,979,954
Texas 14.3%		
Central Texas Turnpike System, Refunding RB, Second Tier, Series C, 5.00%, 8/15/34 (d)	1,465	1,675,154

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BLACKROCK MUNIENHANCED FUND, INC.

JANUARY 31, 2015

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

	Par	
	(000)	Value
Municipal Bonds		
Texas (continued)		
City of Houston Texas Utility System, Refunding RB, Combined 1st Lien, Series A (AGC):		
6.00%, 11/15/35	\$ 2,100	\$ 2,525,628
5.38%, 11/15/38	1,350	1,556,510
City of San Antonio Texas Public Service Board, RB, Junior Lien, 5.00%, 2/01/38	575	666,028
County of Midland Texas Fresh Water Supply District No. 1, RB, CAB, City of Midland Project, Series A, 0.00%, 9/15/36 (a)	2,130	862,075
County of Tarrant Texas Cultural Education Facilities Finance Corp., Refunding RB, Cook Children s Medical Center, 5.25%, 12/01/39	750	894,225
Dallas-Fort Worth International Airport, ARB, Joint Improvement, AMT:		
Series D, 5.00%, 11/01/38	1,975	2,200,683
Series D, 5.00%, 11/01/42	1,500	1,667,550
Series H, 5.00%, 11/01/32	3,000	3,380,430
Dallas-Fort Worth International Airport, Refunding ARB, Series F, 5.25%, 11/01/33	975	1,174,368
Leander Independent School District, GO, CAB, Refunding, Series D, 0.00%, 8/15/38 (a)	3,420	1,273,676
Mansfield Texas ISD, GO, School Building (PSF-GTD), 5.00%, 2/15/33	1,725	1,880,078
North Texas Tollway Authority, RB, Series B, 0.00%, 9/01/43 (a)	14,000	3,125,080
North Texas Tollway Authority, Refunding RB, 1st Tier System:		
Series A, 6.00%, 1/01/28	2,795	3,298,883
Series A (NPFGC), 5.75%, 1/01/40	1,600	1,798,400
Series K-1 (AGC), 5.75%, 1/01/38	3,800	4,392,040
Series K-2 (AGC), 6.00%, 1/01/38	4,015	4,686,830
San Antonio Public Facilities Corp., Refunding RB, Convention Center Refinancing and Expansion Project, CAB (a):		
0.00%, 9/15/35	4,990	2,004,583
0.00%, 9/15/36	11,525	4,363,250
0.00%, 9/15/37	8,245	2,935,467
	Par	
	(000)	Value
Municipal Bonds		
Texas (concluded)		
Texas Municipal Gas Acquisition & Supply Corp. III, RB:		
5.00%, 12/15/31	\$ 1,190	\$ 1,336,263
5.00%, 12/15/32	1,000	1,115,540
Texas Transportation Commission, Refunding RB, Central Texas Turnpike System, 1st Tier, Series A, 5.00%, 8/15/41	4,450	5,017,864
		53,830,605
Washington 0.8%		
Central Puget Sound Regional Transit Authority, RB, Series A, 5.00%, 11/01/36	1,600	1,757,248
Washington Health Care Facilities Authority, RB, Providence Health & Services, Series A:		
5.00%, 10/01/39	525	591,790
5.25%, 10/01/39	625	715,669
		3,064,707
Wisconsin 0.4%		
State of Wisconsin Health & Educational Facilities Authority, RB, Ascension Health Senior Credit Group, Series E, 5.00%, 11/15/33	1,375	1,572,010
Total Municipal Bonds 116.3%		437,216,271
Municipal Bonds Transferred to Tender Option Bond Trusts (e)		
Arizona 0.8%		
City of Phoenix Arizona Civic Improvement Corp., Refunding RB, Water System, Junior Lien, Series A, 5.00%, 7/01/34	1,200	1,370,124
	1,500	1,653,015

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Salt River Project Agricultural Improvement & Power District, RB, Electric System, Series A, 5.00%,
1/01/38

3,023,139

California 2.5%

California State University, Refunding RB, Systemwide, Series A (AGM), 5.00%, 11/01/37	1,999	2,176,446
County of San Diego California Water Authority, COP, Refunding, Series A (AGM), 5.00%, 5/01/33	2,810	3,135,623

BLACKROCK MUNIENHANCED FUND, INC.

JANUARY 31, 2015

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Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

	Par	
	(000)	Value
Municipal Bonds Transferred to Tender Option Bond Trusts (e)		
California (concluded)		
Los Angeles Community College District California, GO, Election of 2001, Series A (AGM), 5.00%, 8/01/17	\$ 2,500	\$ 2,777,125
San Diego Community College District California, GO, Election of 2002, 5.25%, 8/01/33	404	471,925
University of California, RB, Series O, 5.75%, 5/15/34	840	996,080
		9,557,199
Colorado 2.3%		
Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiatives, Series A: 5.50%, 7/01/34 (f)	900	1,043,046
5.00%, 2/01/41	7,001	7,733,076
		8,776,122
District of Columbia 1.7%		
District of Columbia, RB, Series A, 5.50%, 12/01/30 (f)	1,005	1,196,871
District of Columbia Water & Sewer Authority, Refunding RB, Senior Lien, Series A, 6.00%, 10/01/35 (f)	1,780	2,116,401
Metropolitan Washington Airports Authority, Refunding ARB, Series A, AMT, 5.00%, 10/01/30	2,530	2,934,395
		6,247,667
Florida 11.1%		
City of Tallahassee Florida, RB, Energy System (NPFGC): 5.00%, 10/01/32 (f)	4,000	4,369,320
5.00%, 10/01/37	7,500	8,192,475
County of Miami-Dade Florida, Refunding RB, Transit System Sales Surtax, 5.00%, 7/01/42	4,480	5,142,547
County of Miami-Dade Florida School Board, COP, Refunding, Series B (AGC), 5.00%, 5/01/33	10,000	11,037,600
County of Miami-Dade Florida Water & Sewer System, (AGM), 5.00%, 10/01/39	4,621	5,343,174
County of Orange Florida School Board, COP, Series A: (NPFGC), 5.00%, 8/01/31 (b)	2,000	2,139,940
(AGC), 5.50%, 8/01/34	3,544	4,038,622
	Par	
Municipal Bonds Transferred to Tender Option Bond Trusts (e)		
Florida (concluded)		
State of Florida Board of Education, GO, Series D, 5.00%, 6/01/37 (f)	\$ 1,349	\$ 1,482,982
		41,746,660
Illinois 3.2%		
City of Chicago Illinois, RB, Motor Fuel Tax Project, Series A (AGC), 5.00%, 1/01/38	2,000	2,171,680
Metropolitan Pier & Exposition Authority, RB, McCormick Place Expansion Project, Series A, 5.00%, 6/15/42	260	289,140
State of Illinois, RB, Build Illinois, Series B, 5.25%, 6/15/34 (f)	4,399	5,004,138
State of Illinois Toll Highway Authority, RB: Senior Priority, Series B, 5.50%, 1/01/33	1,880	2,090,817
Series A, 5.00%, 1/01/38	2,138	2,430,562
		11,986,337
Louisiana 1.5%		
State of Louisiana Gas & Fuels, RB, Series A (AGM), 5.00%, 5/01/36	5,400	5,719,680
Michigan 2.3%		
Michigan Finance Authority, RB, Hospital, Trinity Health Credit Group, 5.00%, 12/01/39	7,550	8,486,653
Nevada 3.2%		
City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Center, 6.00%, 4/01/39 (f)	3,778	4,438,385
County of Clark Nevada Water Reclamation District, GO, Series B: Limited Tax, 5.75%, 7/01/34	1,829	2,181,504
5.50%, 7/01/29	4,499	5,308,850

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		11,928,739
New Jersey 0.5%		
New Jersey Transportation Trust Fund Authority, RB, Transportation System, Series B, 5.25%, 6/15/36 (f)	1,840	2,059,697
New York 4.9%		
City of New York New York Municipal Water Finance Authority, RB, Fiscal 2009, Series A, 5.75%, 6/15/40	1,260	1,459,633

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BLACKROCK MUNIENHANCED FUND, INC.

JANUARY 31, 2015

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

	Par	
	(000)	Value
Municipal Bonds Transferred to Tender Option Bond Trusts (e)		
New York (concluded)		
City of New York New York Municipal Water Finance Authority, Refunding RB, Water & Sewer System, 2nd General Resolution, Fiscal 2013, Series CC, 5.00%, 6/15/47	\$ 5,680	\$ 6,579,783
City of New York New York Water & Sewer System, Refunding RB, 2nd General Resolution, Fiscal 2014, Series DD, 5.00%, 6/15/35	1,665	1,987,877
Metropolitan Transportation Authority, RB, 5.25%, 11/15/44	3,470	4,160,634
Port Authority of New York & New Jersey, Refunding RB, Construction, 143rd Series, AMT, 5.00%, 10/01/30	2,500	2,595,225
Triborough Bridge & Tunnel Authority, RB, General, Series A-2, 5.25%, 11/15/34 (f)	1,300	1,493,726
		18,276,878
Ohio 0.2%		
State of Ohio, RB, Cleveland Clinic Health Obligated Group, Series B, 5.50%, 1/01/34	580	665,359
South Carolina 0.4%		
State of South Carolina Public Service Authority, Refunding RB, Santee Cooper, Series A, 5.50%, 1/01/38 (f)	1,275	1,466,301
Texas 1.1%		
Clear Creek ISD Texas, GO, Refunding, School Building (PSF-GTD), 5.00%, 2/15/33	2,200	2,374,834
North East Texas ISD, GO, School Building, Series A (PSF-GTD), 5.00%, 8/01/37 (f)	1,600	1,747,392
		4,122,226
Utah 1.5%		
Utah Transit Authority, RB, Series A (AGM), 5.00%, 6/15/36 (b)	5,000	5,596,550
Virginia 0.1%		
County of Fairfax Virginia IDA, Refunding RB, Health Care, Inova Health System, Series A, 5.50%, 5/15/35	350	405,647
	Par	
Municipal Bonds Transferred to Tender Option Bond Trusts (e)		
	(000)	Value
Washington 2.1%		
Central Puget Sound Regional Transit Authority, RB, Series A (AGM), 5.00%, 11/01/32	\$ 4,004	\$ 4,404,654
Washington Health Care Facilities Authority, Refunding RB, Seattle Children s Hospital, 5.00%, 10/01/38	2,880	3,510,691
		7,915,345
Wisconsin 1.0%		
Wisconsin Health & Educational Facilities Authority, Refunding RB, Froedtert & Community Health, Inc., Obligated Group:		
Froedtert & Community Health Inc., Series A, 5.00%, 4/01/42	1,980	2,243,617
Series C, 5.25%, 4/01/39 (f)	1,430	1,598,058
		3,841,675
Total Municipal Bonds Transferred to Tender Option Bond Trusts 40.4%		151,821,874
Total Long-Term Investments		
(Cost \$521,749,392) 156.7%		589,038,145
Short-Term Securities		
	Shares	
FFI Institutional Tax-Exempt Fund, 0.03% (g)(h)	8,031,904	8,031,904
Total Short-Term Securities		
(Cost \$8,031,904) 2.1%		8,031,904
Total Investments		
(Cost \$529,781,296*) 158.8%		597,070,049

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Liabilities in Excess of Other Assets (0.4)%	(1,404,622)
Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable (20.5%)	(77,113,180)
VRDP Shares, at Liquidation Value (37.9%)	(142,500,000)
Net Assets Applicable to Common Shares 100.0%	\$ 376,052,247

* As of January 31, 2015, gross unrealized appreciation and depreciation based on cost for federal income tax purposes were as follows:

Tax cost	\$ 453,939,299
Gross unrealized appreciation	\$ 67,299,697
Gross unrealized depreciation	(1,262,647)
Net unrealized appreciation	\$ 66,037,050

BLACKROCK MUNIENHANCED FUND, INC.

JANUARY 31, 2015

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Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

Notes to Schedule of Investments

- (a) Zero-coupon bond.
- (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) 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) When-issued security. Unsettled when-issued transactions were as follows:

Counterparty	Value	Unrealized Appreciation
Barclays Capital, Inc.	\$ 1,675,154	\$ 24,539
J.P. Morgan Securities LLC	\$ 1,837,488	\$ 8,960

- (e) Represent bonds transferred to a TOB. In exchange for which the Fund received cash and residual interest certificates. These bonds serve as collateral in a financing transaction.
- (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. 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 February 1, 2016 to December 1, 2029 is 14,901,749.
- (g) During the period ended January 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 April 30, 2014	Net Activity	Shares Held at January 31, 2015	Income
FFI Institutional Tax-Exempt Fund	3,108,476	4,905,428	8,013,904	\$ 905

- (h) 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

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BARB	Building Aid Revenue Bonds
BHAC	Berkshire Hathaway Assurance Corp.
CAB	Capital Appreciation Bonds
COP	Certificates of Participation
EDA	Economic Development Authority
ERB	Education Revenue Bonds
GARB	General Airport Revenue Bonds
GO	General Obligation Bonds
GTD	Guaranteed
HDA	Housing Development Authority
HFA	Housing Finance Agency
IDA	Industrial Development Authority
ISD	Independent School District
LRB	Lease Revenue Bonds
M/F	Multi-Family
NPFGC	National Public Finance Guarantee Corp.
PSF	Public School Fund
RB	Revenue Bonds
Syncora	Syncora Guarantee
S/F	Single-Family

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BLACKROCK MUNIENHANCED FUND, INC.

JANUARY 31, 2015

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

As of January 31, 2015, financial futures contracts outstanding were as follows:

Contracts Short	Issue	Exchange	Expiration	Notional	
				Value	Unrealized Depreciation
(329)	10-Year U.S. Treasury Note	Chicago Board of Trade	March 2015	\$ 43,057,875	\$ (1,163,075)
(75)	5-Year U.S. Treasury Note	Chicago Board of Trade	March 2015	\$ 9,100,781	(156,550)
Total					\$ (1,319,625)

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 statement 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 instrument 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.

As of January 31, 2015, the following tables summarize the Fund's investments and derivative financial instruments categorized in the disclosure hierarchy:

Schedule of Investments (concluded)

BlackRock MuniEnhanced Fund, Inc. (MEN)

	Level 1	Level 2	Level 3	Total
Assets:				
Investments:				
Long-Term Investments ¹		\$ 589,038,145		\$ 589,038,145
Short-Term Securities	\$ 8,031,904			8,031,904
Total	\$ 8,031,904	\$ 589,038,145		\$ 597,070,049

¹ See above Schedule of Investments for values in each state or political subdivision.

	Level 1	Level 2	Level 3	Total
Derivative Financial Instruments ²				
Liabilities:				
Interest rate contracts				\$ (1,319,625)

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

The Fund may hold assets and/or liabilities in which the fair value approximates the carrying amount for financial reporting purposes. As of January 31, 2015, 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	\$ 514,000			\$ 514,000
Liabilities:				
TOB trust certificates		\$ (77,093,700)		(77,093,700)
VRDP Shares		(142,500,000)		(142,500,000)
Total	\$ 514,000	\$ (219,593,700)		\$ (219,079,700)

During the period ended January 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 MuniEnhanced Fund, Inc.

By: /s/ John M. Perlowski
John M. Perlowski
Chief Executive Officer (principal executive officer) of
BlackRock MuniEnhanced Fund, Inc.

Date: March 25, 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 MuniEnhanced Fund, Inc.

Date: March 25, 2015

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

Date: March 25, 2015