

BLACKROCK MUNIENHANCED FUND, INC.

Form N-Q

September 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: 811-05739

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: 07/31/2014

Item 1 Schedule of Investments

Schedule of Investments July 31, 2014 (Unaudited)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

| | Par (000) | Value |
|--|--------------|--------------|
| Municipal Bonds | | |
| Alabama 1.4% | | |
| County of Jefferson Alabama, RB, Limited Obligation School, Series A: | | |
| 5.50%, 1/01/22 | \$ 2,750 | \$ 2,774,475 |
| 4.75%, 1/01/25 | 2,200 | 2,146,958 |
| | | 4,921,433 |
| Alaska 0.8% | | |
| Alaska Housing Finance Corp., RB, General Housing, Series B (NPFGC), 5.25%, 12/01/30 | 400 | 420,500 |
| Alaska Industrial Development & Export Authority, RB, Providence Health Services, Series A, 5.50%, 10/01/41 | 990 | 1,099,910 |
| Borough of Matanuska-Susitna Alaska, RB, Goose Creek Correctional Center (AGC), 6.00%, 9/01/28 | 1,200 | 1,442,244 |
| | | 2,962,654 |
| Arizona 1.3% | | |
| Greater Arizona Development Authority, RB, Series B (NPFGC), 5.00%, 8/01/35 | 1,300 | 1,344,408 |
| State of Arizona, COP, Department of Administration, Series A (AGM): | | |
| 5.00%, 10/01/27 | 2,700 | 2,967,759 |
| 5.00%, 10/01/29 | 400 | 435,812 |
| | | 4,747,979 |
| California 19.2% | | |
| Alameda Corridor Transportation Authority, Refunding RB, CAB, Subordinate Lien, Series A (AMBAC): | | |
| 5.40%, 10/01/24 | 10,185 | 10,989,717 |
| 5.45%, 10/01/25 | 3,700 | 3,981,015 |
| Anaheim Public Financing Authority California, RB, Senior, Public Improvements Project, Series A (AGM), 6.00%, 9/01/24 | 5,000 | 5,944,800 |
| Cabrillo Community College District, GO, CAB, Election of 2004, Series B (NPFGC), 0.00%, 8/01/37 (a) | 2,400 | 773,376 |
| California Health Facilities Financing Authority, RB: | | |
| St. Joseph Health System, Series A, 5.75%, 7/01/39 | 550 | 636,625 |
| Sutter Health, Series B, 5.88%, 8/15/31 | 1,200 | 1,433,076 |
| | Par (000) | Value |
| Municipal Bonds | | |
| California (continued) | | |
| California Health Facilities Financing Authority, Refunding RB, St. Joseph's Health System, Series A, 5.00%, 7/01/37 | \$ 1,090 | \$ 1,181,244 |
| California Statewide Communities Development Authority, RB, Kaiser Permanente, Series A, 5.00%, 4/01/42 | 1,480 | 1,602,204 |
| City of Redding California, COP, Refunding, Series A (AGM), 5.00%, 6/01/30 | 1,420 | 1,575,078 |
| City of San Jose California, Refunding ARB, Series A-1, AMT, 5.75%, 3/01/34 | 850 | 952,093 |
| County of Orange California Sanitation District, COP, Series B (AGM): | | |
| 5.00%, 2/01/30 | 1,500 | 1,641,420 |
| 5.00%, 2/01/31 | 900 | 976,545 |
| County of San Joaquin California Transportation Authority, Refunding RB, Limited Tax, Measure K, Series A, 6.00%, 3/01/36 | 2,175 | 2,612,284 |
| Los Angeles Community College District California, GO, Election of 2001, Series A (AGM), 5.00%, 8/01/32 | 1,300 | 1,437,033 |
| Mount San Antonio Community College District, GO, Refunding, CAB, Election of 2008, Series A, 0.00%, 8/01/43 (b) | 2,500 | 1,471,775 |
| Poway Unified School District, GO, Refunding, CAB, School Facilities Improvement, Election of 2008, Series B, 0.00%, 8/01/36 (a) | 3,750 | 1,396,725 |
| Rio Hondo Community College District California, GO, CAB, Election of 2004, Series C, 0.00%, 8/01/38 (a) | 5,000 | 1,650,900 |
| San Diego California Unified School District, GO, CAB, Election of 2008 (a): | | |
| Series C, 0.00%, 7/01/38 | 1,600 | 520,608 |
| Series G, 0.00%, 7/01/34 | 650 | 239,187 |
| Series G, 0.00%, 7/01/35 | 690 | 238,243 |

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| | | |
|--------------------------|-------|---------|
| Series G, 0.00%, 7/01/36 | 1,035 | 335,340 |
| Series G, 0.00%, 7/01/37 | 690 | 210,043 |

BLACKROCK MUNIENHANCED FUND, INC.

JULY 31, 2014

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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, Refunding, CAB (a): | | |
| Series R-1, 0.00%, 7/01/30 | \$ 5,000 | \$ 2,572,150 |
| Election of 2008, Series R-1, 0.00%, 7/01/31 | 1,280 | 623,219 |
| San Diego Community College District California, GO, CAB, Election of 2006 (a): | | |
| 0.00%, 8/01/31 | 2,145 | 935,971 |
| 0.01%, 8/01/32 | 2,680 | 1,087,624 |
| San Marcos Unified School District, GO, Election of 2010, Series A: | | |
| 5.00%, 8/01/34 | 700 | 772,919 |
| 5.00%, 8/01/38 | 600 | 655,836 |
| San Mateo County Community College District, GO, CAB, Election of 2001, Series C (NPFGC), 0.00%, 9/01/30 (a) | 12,740 | 7,031,206 |
| State of California, GO, Refunding, Various Purpose: | | |
| 5.00%, 2/01/38 | 2,500 | 2,724,825 |
| 5.00%, 10/01/41 | 1,000 | 1,089,010 |
| State of California, GO, Various Purpose, 5.00%, 4/01/42 | 1,000 | 1,087,430 |
| State of California Public Works Board, LRB, Various Judicial Council Projects, Series A, 5.00%, 3/01/38 | 710 | 774,596 |
| Walnut Valley Unified School District, GO, CAB, Election of 2007, Series B, 0.00%, 8/01/36 (a) | 5,500 | 2,022,680 |
| West Basin Municipal Water District California, COP, Refunding, Series B (AGC), 5.00%, 8/01/30 | 5,035 | 5,583,060 |
| | | 68,759,857 |
| Colorado 1.7% | | |
| Regional Transportation District, COP, Refunding, Series A, 5.38%, 6/01/31 | 2,000 | 2,190,140 |
| Regional Transportation District, COP, Series A, 5.00%, 6/01/39 | 3,465 | 3,723,212 |
| | | 5,913,352 |
| District of Columbia 1.6% | | |
| District of Columbia, RB, Series B-1 (NPFGC), 5.00%, 2/01/31 | 5,480 | 5,612,013 |
| | Par (000) | Value |
| Municipal Bonds | | |
| Florida 9.8% | | |
| County of Broward Florida Water & Sewer Utility, Refunding RB, Series A, 5.25%, 10/01/34 | \$ 850 | \$ 953,828 |
| County of Collier Florida School Board, COP, (AGM), 5.00%, 2/15/16 (c) | 3,000 | 3,216,810 |
| County of Duval Florida School Board, COP, Master Lease Program (AGM), 5.00%, 7/01/33 | 2,625 | 2,852,482 |
| County of Highlands Florida Health Facilities Authority, RB, Adventist Health System/Sunbelt, Series B, 6.00%, 11/15/37 | 1,450 | 1,697,167 |
| County of Hillsborough Florida Aviation Authority, RB, Series A, AMT (AGC), 5.38%, 10/01/33 | 4,050 | 4,496,107 |
| County of Lee Florida, Refunding ARB, Series A, AMT: | | |
| 5.63%, 10/01/26 | 960 | 1,110,576 |
| 5.38%, 10/01/32 | 3,160 | 3,441,398 |
| County of Miami-Dade Florida, GO, Building Better Communities Program, Series B-1, 5.75%, 7/01/33 | 1,400 | 1,592,570 |
| County of Miami-Dade Florida Aviation, Refunding ARB, AMT: | | |
| 5.00%, 10/01/34 | 190 | 202,949 |
| Miami International Airport, Series A (AGC), 5.00%, 10/01/40 | 3,900 | 3,990,246 |
| County of Miami-Dade Florida Seaport, RB: | | |
| Series A, 6.00%, 10/01/38 | 2,025 | 2,321,399 |
| Series B, AMT, 6.00%, 10/01/30 | 640 | 752,966 |
| Series B, AMT, 6.25%, 10/01/38 | 415 | 484,998 |
| Series B, AMT, 6.00%, 10/01/42 | 660 | 753,892 |
| County of Palm Beach Florida Solid Waste Authority, Refunding RB, 5.00%, 10/01/31 | 2,000 | 2,262,560 |
| County of Sarasota Florida Public Hospital District, RB, Sarasota Memorial Hospital Project, Series A, 5.63%, 7/01/39 | 275 | 291,858 |
| Florida Ports Financing Commission, Refunding RB, State Transportation Trust Fund, Series B, AMT: | | |
| 5.13%, 6/01/27 | 2,000 | 2,248,800 |
| 5.38%, 10/01/29 | 1,050 | 1,198,039 |

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

| | Par (000) | Value |
|--|--------------|--------------|
| Municipal Bonds | | |
| Florida (concluded) | | |
| South Florida Water Management District, COP, (AGC), 5.00%, 10/01/22 | \$ 1,000 | \$ 1,091,550 |
| | | 34,960,195 |
| Georgia 3.2% | | |
| County of Burke Georgia Development Authority, Refunding RB, Oglethorpe Power-Vogtle Project, Series C, 5.70%, 1/01/43 | 1,150 | 1,235,606 |
| Municipal Electric Authority of Georgia, Refunding RB, Series EE (AMBAC), 7.00%, 1/01/25 | 7,475 | 10,196,946 |
| | | 11,432,552 |
| Illinois 23.1% | | |
| City of Chicago Illinois, GARB, O Hare International Airport, 3rd Lien: Series A, 5.75%, 1/01/39 | 5,110 | 5,749,874 |
| Series B-2, AMT (Syncora), 6.00%, 1/01/29 | 1,460 | 1,466,263 |
| City of Chicago Illinois, GO, Refunding, Series A: 5.25%, 1/01/33 | 2,700 | 2,811,834 |
| 5.00%, 1/01/34 | 5,750 | 5,862,297 |
| City of Chicago Illinois, GO, Series A, 5.25%, 1/01/35 | 400 | 409,824 |
| City of Chicago Illinois, Refunding RB, Sales Tax Receipts, Series A, 5.00%, 1/01/41 | 3,425 | 3,558,095 |
| City of Chicago Illinois Board of Education, GO, Series A, 5.50%, 12/01/39 | 1,200 | 1,243,068 |
| City of Chicago Illinois Midway International Airport, Refunding RB, 2nd Lien, Series A, AMT, 5.00%, 1/01/34 | 1,065 | 1,123,884 |
| City of Chicago Illinois Park District, GO, Harbor Facilities Revenue, Series C, 5.25%, 1/01/40 | 550 | 585,030 |
| City of Chicago Illinois Transit Authority, RB: 5.25%, 12/01/49 | 900 | 969,975 |
| Sales Tax Receipts, 5.25%, 12/01/36 | 595 | 647,354 |
| County of Cook Illinois Forest Preserve District, GO, Refunding, Limited Tax Project, Series B, 5.00%, 12/15/37 | 285 | 306,062 |
| | Par | |
| | (000) | Value |
| Municipal Bonds | | |
| Illinois (continued) | | |
| County of Cook Illinois Forest Preserve District, GO, Series C, 5.00%, 12/15/37 | \$ 330 | \$ 353,232 |
| Illinois Finance Authority, RB, Carle Foundation, Series A: 5.75%, 8/15/34 | 650 | 726,355 |
| 6.00%, 8/15/41 | 1,000 | 1,134,080 |
| Illinois HDA, RB, Liberty Arms Senior Apartments, M/F Housing, Series D, AMT (AMBAC), 4.88%, 7/01/47 | 2,140 | 2,142,290 |
| Illinois Municipal Electric Agency, RB, Series A (NPFGC), 5.25%, 2/01/35 | 1,000 | 1,074,550 |
| Illinois Sports Facilities Authority, RB, State Tax Supported (AMBAC), 5.50%, 6/15/30 | 17,620 | 18,415,367 |
| Kane McHenry Cook & De Kalb Counties Unit School District No. 300, GO, Refunding, 5.25%, 1/01/33 | 9,145 | 10,030,145 |
| Metropolitan Pier & Exposition Authority, RB, CAB, McCormick Place Explosion Project, Series A (NPFGC) (a): 0.00%, 12/15/26 | 5,000 | 3,031,500 |
| 0.00%, 12/15/33 | 9,950 | 3,954,727 |
| Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Expansion Project, Series B: CAB (AGM), 0.00%, 6/15/44 (a) | 3,450 | 755,343 |
| 4.25%, 6/15/42 | 3,040 | 2,989,506 |
| Railsplitter Tobacco Settlement Authority, RB, 6.00%, 6/01/28 | 675 | 785,646 |
| Regional Transportation Authority, RB, Series A (AMBAC), 7.20%, 11/01/20 | 7,290 | 8,506,409 |
| State of Illinois, GO: 5.25%, 2/01/33 | 830 | 865,300 |
| 5.50%, 7/01/33 | 820 | 875,924 |
| 5.25%, 2/01/34 | 830 | 864,661 |
| 5.50%, 7/01/38 | 445 | 471,335 |

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

| | Par (000) | Value |
|--|--------------|--------------|
| Municipal Bonds | | |
| Illinois (concluded) | | |
| University of Illinois, RB, Auxiliary Facilities System, Series A, 5.00%, 4/01/39 | \$ 905 | \$ 980,694 |
| | | 82,690,624 |
| Indiana 1.5% | | |
| Indiana Finance Authority, RB, Series A: | | |
| CWA Authority Project, 1st Lien, 5.25%, 10/01/38 | 1,100 | 1,220,296 |
| Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/40 | 890 | 922,022 |
| Private Activity Bond, Ohio River Bridges East End Crossing Project, AMT, 5.00%, 7/01/44 | 515 | 532,191 |
| Indianapolis Local Public Improvement Bond Bank, Refunding RB, Waterworks Project, Series A (AGC): | | |
| 5.25%, 1/01/29 | 600 | 665,532 |
| 5.50%, 1/01/38 | 1,825 | 2,028,122 |
| | | 5,368,163 |
| Iowa 3.6% | | |
| Iowa Finance Authority, RB, Iowa Health Care Facilities, Series A (AGC), 5.63%, 8/15/37 | 5,725 | 6,506,520 |
| Iowa Student Loan Liquidity Corp., RB, Senior Series A-2, AMT: | | |
| 5.60%, 12/01/26 | 2,865 | 3,065,005 |
| 5.70%, 12/01/27 | 1,300 | 1,388,283 |
| 5.80%, 12/01/29 | 880 | 934,912 |
| 5.85%, 12/01/30 | 915 | 970,248 |
| | | 12,864,968 |
| Louisiana 0.9% | | |
| City of New Orleans Louisiana, Refunding RB, 5.00%, 12/01/34 | 310 | 334,378 |
| Louisiana Local Government Environmental Facilities & Community Development Authority, RB, East Baton Rouge Sewerage Commission Projects, Sub-Lien, Series A, 5.00%, 2/01/43 | | |
| | 1,420 | 1,544,946 |
| Municipal Bonds | | |
| Louisiana (concluded) | | |
| Louisiana Public Facilities Authority, Refunding RB, Christus Health, Series B (AGC), 6.50%, 7/01/30 | \$ 1,250 | \$ 1,410,913 |
| | | 3,290,237 |
| Massachusetts 4.2% | | |
| Massachusetts HFA, Refunding RB, Series C, AMT, 5.35%, 12/01/42 | 1,150 | 1,181,775 |
| Massachusetts School Building Authority, RB, Dedicated Sales Tax, Series A: | | |
| Senior, 5.00%, 5/15/43 | 1,280 | 1,427,200 |
| (AGM), 5.00%, 8/15/15 (c) | 8,855 | 9,299,698 |
| (AGM), 5.00%, 8/15/15 (c) | 230 | 241,551 |
| (AGM), 5.00%, 8/15/30 | 85 | 88,732 |
| Massachusetts Water Resources Authority, Refunding RB, General, Series A (NPFGC), 5.00%, 8/01/34 | 2,700 | 2,961,198 |
| | | 15,200,154 |
| Michigan 2.5% | | |
| City of Detroit Michigan Sewage Disposal System, Refunding RB: | | |
| 2nd Lien, Series E (BHAC), 5.75%, 7/01/31 | 2,500 | 2,624,975 |
| Senior Lien, Series B (AGM), 7.50%, 7/01/33 | 500 | 547,190 |
| City of Detroit Michigan Water Supply System, RB, 2nd Lien, Series B (AGM): | | |
| 6.25%, 7/01/36 | 400 | 408,780 |
| 7.00%, 7/01/36 | 200 | 215,072 |
| City of Lansing Michigan, RB, Board of Water & Light Utilities System, Series A, 5.50%, 7/01/41 | 1,700 | 1,974,006 |
| State of Michigan Building Authority, Refunding RB, Facilities Program: | | |
| Series I-A, 5.38%, 10/15/36 | 145 | 160,521 |
| Series I-A, 5.38%, 10/15/41 | 700 | 773,059 |
| Series II-A (AGM), 5.25%, 10/15/36 | 900 | 988,074 |
| State of Michigan HDA, RB, S/F Housing, Series C, AMT, 5.50%, 12/01/28 | 880 | 928,849 |

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

| | Par (000) | Value |
|--|--------------|------------|
| Municipal Bonds | | |
| Michigan (concluded) | | |
| Western Michigan University, Refunding RB, General (AGM), 5.00%, 11/15/39 | \$ 380 | \$ 411,057 |
| | | 9,031,583 |
| Minnesota 0.8% | | |
| City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series B (AGC), 6.50%, 11/15/38 | 2,500 | 2,941,650 |
| Nebraska 1.7% | | |
| Central Plains Energy Project Nebraska, RB, Gas Project No. 3, 5.25%, 9/01/37 | 750 | 802,950 |
| Central Plains Nebraska Energy Project, RB, Gas Project No. 3, 5.00%, 9/01/32 | 5,000 | 5,363,700 |
| | | 6,166,650 |
| Nevada 1.6% | | |
| City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Center, 6.00%, 4/01/34 | 850 | 987,164 |
| County of Clark Nevada, ARB, Las Vegas-McCarran International Airport, Series A: 5.25%, 7/01/42 | 500 | 538,725 |
| (AGM), 5.25%, 7/01/39 | 3,800 | 4,105,938 |
| County of Clark Nevada, RB, Southwest Gas Corp. Project, Series A, AMT (NPFGC), 4.75%, 9/01/36 | 75 | 75,448 |
| | | 5,707,275 |
| New Jersey 8.8% | | |
| New Jersey EDA, RB: | | |
| Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/31 | 3,125 | 3,158,219 |
| Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/33 | 7,800 | 7,882,914 |
| School Facilities Construction (AGC), 6.00%, 12/15/18 (c) | 1,975 | 2,402,113 |
| School Facilities Construction (AGC), 6.00%, 12/15/34 | 25 | 28,968 |
| The Goethals Bridge Replacement Project, AMT, 5.13%, 1/01/34 | 685 | 733,395 |
| The Goethals Bridge Replacement Project, AMT, 5.38%, 1/01/43 | 895 | 949,461 |
| | Par (000) | Value |
| Municipal Bonds | | |
| New Jersey (concluded) | | |
| New Jersey Higher Education Student Assistance Authority, Refunding RB, Series 1, AMT: 5.50%, 12/01/26 | \$ 600 | \$ 670,272 |
| 5.75%, 12/01/27 | 3,870 | 4,363,309 |
| New Jersey Housing & Mortgage Finance Agency, Refunding RB, M/F Housing, Series 2, AMT, 4.35%, 11/01/33 | 1,230 | 1,239,262 |
| New Jersey Transportation Trust Fund Authority, RB, Transportation System: | | |
| CAB, Series A, 0.00%, 12/15/29 (a) | 4,360 | 2,154,058 |
| Series A, 5.50%, 6/15/41 | 2,000 | 2,215,320 |
| Series AA, 5.25%, 6/15/33 | 1,460 | 1,620,439 |
| Series AA, 5.50%, 6/15/39 | 1,150 | 1,271,383 |
| Series B, 5.00%, 6/15/42 | 2,500 | 2,625,800 |
| | | 31,314,913 |
| New York 5.4% | | |
| 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 | 1,582,819 |
| City of New York New York Transitional Finance Authority, BARB, Fiscal 2009, Series S-4, 5.50%, 1/15/33 | 1,600 | 1,830,608 |
| City of New York New York Transitional Finance Authority, RB, Fiscal 2009, Series S-4, 5.50%, 1/15/34 | 2,750 | 3,147,622 |
| City of New York New York Transitional Finance Authority, Refunding RB, Future Tax Secured, Series B, 5.00%, 11/01/32 | 1,480 | 1,686,712 |
| County of Erie New York Industrial Development Agency, RB, City School District of Buffalo, Series A (AGM), 5.75%, 5/01/28 | 1,500 | 1,670,235 |
| Hudson Yards Infrastructure Corp., RB, Senior, Fiscal 2012, Series A, 5.75%, 2/15/47 | 700 | 796,341 |
| Metropolitan Transportation Authority, RB, Series C, 6.50%, 11/15/28 | 4,000 | 4,769,560 |
| State of New York Dormitory Authority, ERB, Series B, 5.75%, 3/15/36 | 1,200 | 1,391,136 |

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

| | Par (000) | Value |
|--|----------------------|--------------|
| Municipal Bonds | | |
| New York (concluded) | | |
| State of New York HFA, RB, Affordable M/F Housing, Series B, AMT, 5.30%, 11/01/37 | \$ 2,500 | \$ 2,565,750 |
| | | 19,440,783 |
| Ohio 1.2% | | |
| County of Lucas Ohio, Refunding RB, Promedica Healthcare, Series A, 6.50%, 11/15/37 | 530 | 634,113 |
| State of Ohio Turnpike Commission, RB, CAB, Junior Lien, Infrastructure Projects, Series A-2, 0.00%, 2/15/37 (a) | 10,000 | 3,611,600 |
| | | 4,245,713 |
| Pennsylvania 1.3% | | |
| Commonwealth Financing Authority, RB, Series B, 5.00%, 6/01/42 | 2,000 | 2,126,340 |
| Pennsylvania Turnpike Commission, RB: | | |
| Series A, 5.00%, 12/01/38 | 620 | 681,951 |
| Series C, 5.50%, 12/01/33 | 555 | 637,462 |
| Subordinate, Special Motor License Fund, 6.00%, 12/01/36 | 575 | 668,397 |
| Philadelphia School District, GO, Series E, 6.00%, 9/01/38 | 400 | 437,728 |
| | | 4,551,878 |
| South Carolina 6.9% | | |
| Charleston Educational Excellence Finance Corp., RB, (AGC) (c): | | |
| 5.25%, 12/01/15 | 3,120 | 3,330,038 |
| 5.25%, 12/01/15 | 2,765 | 2,951,140 |
| 5.25%, 12/01/15 | 1,010 | 1,077,993 |
| South Carolina Jobs EDA, Refunding RB, Palmetto Health, Series A (AGM), 6.50%, 8/01/39 | 115 | 132,101 |
| South Carolina Transportation Infrastructure Bank, RB, Series A, 5.25%, 10/01/40 | 3,000 | 3,328,950 |
| State of South Carolina Public Service Authority, RB, Santee Cooper: | | |
| Series A, 5.50%, 12/01/54 | 8,725 | 9,660,145 |
| Series E, 5.50%, 12/01/53 | 745 | 822,905 |
| State of South Carolina Public Service Authority, Refunding RB, Santee Cooper: Series A, 5.50%, 1/01/38 | 1,000 | 1,127,360 |
| | Par (000) | Value |
| Municipal Bonds | | |
| South Carolina (concluded) | | |
| State of South Carolina Public Service Authority, Refunding RB, Santee Cooper (concluded): Series B, 5.00%, 12/01/38 | \$ 2,080 | \$ 2,265,952 |
| | | 24,696,584 |
| Tennessee 2.2% | | |
| Memphis Center City Revenue Finance Corp., RB, Pyramid & Pinch District, Series B (AGM), 5.25%, 11/01/30 | 1,730 | 1,955,384 |
| Metropolitan Government of Nashville & Davidson County Health & Educational Facilities Board, Refunding RB, Vanderbilt University, Series B, 5.50%, 10/01/29 | 5,000 | 5,841,450 |
| | | 7,796,834 |
| Texas 12.6% | | |
| City of Houston Texas Utility System, Refunding RB, Combined 1st Lien, Series A (AGC): | | |
| 6.00%, 11/15/35 | 2,100 | 2,465,526 |
| 5.38%, 11/15/38 | 1,350 | 1,525,784 |
| City of San Antonio Texas Public Service Board, RB, Junior Lien, 5.00%, 2/01/38 | 575 | 633,058 |
| 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 | 753,530 |
| County of Tarrant Texas Cultural Education Facilities Finance Corp., Refunding RB, Cook Children s Medical Center, 5.25%, 12/01/39 | 750 | 841,635 |
| Dallas-Fort Worth International Airport, ARB, Joint Improvement, AMT: | | |
| Series D, 5.00%, 11/01/38 | 1,975 | 2,063,954 |
| Series D, 5.00%, 11/01/42 | 1,500 | 1,563,765 |

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| | | |
|---|-------|-----------|
| Series H, 5.00%, 11/01/32 | 3,000 | 3,173,460 |
| Dallas-Fort Worth International Airport, Refunding ARB, Series F, 5.25%, 11/01/33 | 975 | 1,105,484 |
| Mansfield Texas ISD, GO, School Building (PSF-GTD), 5.00%, 2/15/33 | 1,725 | 1,897,776 |

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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 | | |
| Texas (concluded) | | |
| New Hope Cultural Education Facilities Corp., HRB, Collegiate Housing College Station, Texas A&M University Project, Series A (AGM), 5.00%, 4/01/46 | \$ 120 | \$ 127,452 |
| North Texas Tollway Authority, Refunding RB, 1st Tier System: | | |
| Series A, 6.00%, 1/01/28 | 2,795 | 3,274,343 |
| Series A (NPFGC), 5.75%, 1/01/40 | 1,600 | 1,788,176 |
| Series K-1 (AGC), 5.75%, 1/01/38 | 3,800 | 4,328,656 |
| Series K-2 (AGC), 6.00%, 1/01/38 | 4,015 | 4,626,284 |
| San Antonio Public Facilities Corp., Refunding RB, Convention Center Refinancing and Expansion Project, CAB (a): | | |
| 0.00%, 9/15/35 | 4,990 | 1,852,388 |
| 0.00%, 9/15/36 | 11,525 | 4,030,638 |
| 0.00%, 9/15/37 | 8,245 | 2,717,964 |
| Texas Municipal Gas Acquisition & Supply Corp. III, RB: | | |
| 5.00%, 12/15/31 | 1,190 | 1,261,733 |
| 5.00%, 12/15/32 | 1,000 | 1,050,170 |
| Texas Transportation Commission, Refunding RB, Central Texas Turnpike System, 1st Tier, Series A, 5.00%, 8/15/41 | | |
| | 3,750 | 3,976,462 |
| | | 45,058,238 |
| Washington 0.8% | | |
| Central Puget Sound Regional Transit Authority, RB, Series A, 5.00%, 11/01/36 | 1,600 | 1,758,208 |
| Washington Health Care Facilities Authority, RB, Providence Health & Services, Series A: | | |
| 5.00%, 10/01/39 | 525 | 553,261 |
| 5.25%, 10/01/39 | 625 | 670,118 |
| | | 2,981,587 |
| 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 | 1,483,364 |
| Total Municipal Bonds | 118.5% | 424,141,233 |
| Municipal Bonds Transferred to | | |
| Tender Option Bond (TOB) Trusts (d) | | |
| 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 | \$ 1,350,996 |
| Salt River Project Agricultural Improvement & Power District, RB, Electric System, Series A, 5.00%, 1/01/38 | | |
| | 1,500 | 1,648,395 |
| | | 2,999,391 |
| California 2.7% | | |
| California State University, Refunding RB, Systemwide, Series A (AGM), 5.00%, 11/01/37 | | |
| | 1,999 | 2,184,206 |
| County of San Diego California Water Authority, COP, Refunding, Series A (AGM), 5.00%, 5/01/33 | | |
| | 2,810 | 3,113,789 |
| Los Angeles Community College District California, GO, Election of 2001, Series A (AGM), 5.00%, 8/01/32 | | |
| | 2,500 | 2,763,525 |
| San Diego Community College District California, GO, Election of 2002, 5.25%, 8/01/33 | | |
| | 404 | 465,148 |
| University of California, RB, Series O, 5.75%, 5/15/34 | | |
| | 840 | 983,419 |
| | | 9,510,087 |
| Colorado 2.4% | | |
| Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiatives, Series A: | | |
| 5.50%, 7/01/34 (e) | 900 | 1,024,772 |
| 5.00%, 2/01/41 | 7,001 | 7,427,518 |

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| | | |
|--|-------|-----------|
| | | 8,452,290 |
| District of Columbia 1.7% | | |
| District of Columbia, RB, Series A, 5.50%, 12/01/30 (e) | 1,005 | 1,181,240 |
| District of Columbia Water & Sewer Authority, Refunding RB, Senior Lien, Series A, 6.00%, 10/01/35 (e) | 1,780 | 2,046,798 |

BLACKROCK MUNIENHANCED FUND, INC.

JULY 31, 2014

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Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(Percentages shown are based on Net Assets)

| Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (d) District of Columbia (concluded) | Par (000) | Value |
|--|--------------|--------------|
| Metropolitan Washington Airports Authority, Refunding ARB, Series A, AMT, 5.00%, 10/01/30 | \$ 2,530 | \$ 2,824,087 |
| | | 6,052,125 |
| Florida 11.4% | | |
| City of Tallahassee Florida, RB, Energy System (NPFGC): | | |
| 5.00%, 10/01/32 (e) | 4,000 | 4,371,480 |
| 5.00%, 10/01/37 | 7,500 | 8,149,125 |
| County of Miami-Dade Florida, Refunding RB, Transit System Sales Surtax, 5.00%, 7/01/42 | 4,480 | 4,860,397 |
| County of Miami-Dade Florida School Board, COP, Refunding, Series B (AGC), 5.00%, 5/01/33 | 10,000 | 10,813,400 |
| County of Miami-Dade Florida Water & Sewer System, RB, (AGM), 5.00%, 10/01/39 | 4,621 | 5,032,260 |
| County of Orange Florida School Board, COP, Series A: (NPFGC), 5.00%, 8/01/31 | 2,000 | 2,121,920 |
| (AGC), 5.50%, 8/01/34 | 3,544 | 3,922,935 |
| State of Florida Board of Education, GO, Series D, 5.00%, 6/01/37 (e) | 1,349 | 1,488,138 |
| | | 40,759,655 |
| Illinois 3.2% | | |
| City of Chicago Illinois, RB, Motor Fuel Tax Project, Series A (AGC), 5.00%, 1/01/38 | 2,000 | 2,075,880 |
| Metropolitan Pier & Exposition Authority, RB, McCormick Place Expansion Project, Series A, 5.00%, 6/15/42 | 270 | 284,527 |
| State of Illinois, RB, Build Illinois, Series B, 5.25%, 6/15/34 (e) | 4,399 | 4,865,582 |
| State of Illinois Toll Highway Authority, RB: Senior Priority, Series B, 5.50%, 1/01/33 | 1,880 | 2,084,067 |
| Series A, 5.00%, 1/01/38 | 2,138 | 2,325,080 |
| | | 11,635,136 |
| Louisiana 1.6% | | |
| State of Louisiana Gas & Fuels, RB, Series A (AGM), 5.00%, 5/01/36 | 5,400 | 5,716,440 |
| Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts (d) | Par | Value |
| Michigan 2.2% | | |
| Michigan Finance Authority, RB, Hospital, Trinity Health Credit Group, 5.00%, 12/01/39 | \$ 7,550 | \$ 8,060,003 |
| Nevada 3.3% | | |
| City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Center, 6.00%, 4/01/39 (e) | 3,778 | 4,374,995 |
| County of Clark Nevada Water Reclamation District, GO, Series B: Limited Tax, 5.75%, 7/01/34 | 1,829 | 2,147,301 |
| 5.50%, 7/01/29 | 4,499 | 5,271,770 |
| | | 11,794,066 |
| New Jersey 0.6% | | |
| New Jersey Transportation Trust Fund Authority, RB, Transportation System, Series B, 5.25%, 6/15/36 (e) | 1,840 | 2,001,535 |
| New York 3.8% | | |
| City of New York New York Municipal Water Finance Authority, RB, Fiscal 2009, Series A, 5.75%, 6/15/40 | 1,260 | 1,441,501 |
| 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 | 6,171,618 |
| 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 | 1,886,762 |
| Port Authority of New York & New Jersey, Refunding RB, Construction, 143rd Series, AMT, 5.00%, 10/01/30 | 2,500 | 2,585,950 |
| Triborough Bridge & Tunnel Authority, RB, General, Series A-2, 5.25%, 11/15/34 (e) | 1,300 | 1,468,012 |
| | | 13,553,843 |
| Ohio 0.2% | | |
| State of Ohio, RB, Cleveland Clinic Health Obligated Group, Series B, 5.50%, 1/01/34 | 580 | 648,457 |

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 (TOB) Trusts (d) | | |
| South Carolina 0.4% | | |
| State of South Carolina Public Service Authority, Refunding RB, Santee Cooper, Series A, 5.50%, 1/01/38 (e) | \$ 1,275 | \$ 1,437,384 |
| Texas 1.2% | | |
| Clear Creek ISD Texas, GO, Refunding, School Building (PSF-GTD), 5.00%, 2/15/33 | 2,200 | 2,388,518 |
| North East Texas ISD, GO, School Building, Series A (PSF-GTD), 5.00%, 8/01/37 (e) | 1,600 | 1,754,784 |
| | | 4,143,302 |
| Utah 1.5% | | |
| Utah Transit Authority, RB, Series A (AGM), 5.00%, 6/15/36 | 5,000 | 5,550,400 |
| Virginia 0.1% | | |
| County of Fairfax Virginia IDA, Refunding RB, Health Care, Inova Health System, Series A, 5.50%, 5/15/35 | 350 | 388,483 |
| Washington 1.2% | | |
| Central Puget Sound Regional Transit Authority, RB, Series A (AGM), 5.00%, 11/01/32 | 4,004 | 4,408,218 |
| Wisconsin 1.0% | | |
| Wisconsin Health & Educational Facilities Authority, Refunding RB, Froedtert & Community Health, Inc., Obligated Group: Series A, 5.00%, 4/01/42 | 1,980 | 2,129,529 |
| Series C, 5.25%, 4/01/39 (e) | 1,430 | 1,524,263 |
| | | 3,653,792 |
| Total Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts 39.3% | | 140,764,607 |
| Total Long-Term Investments | | |
| (Cost \$517,249,282) 157.8% | | 564,905,840 |
| Short-Term Securities | | |
| | Shares | Value |
| FFI Institutional Tax-Exempt Fund, 0.03% (f)(g) | 5,381,887 | \$ 5,381,887 |
| Total Short-Term Securities | | |
| (Cost \$5,381,887) 1.5% | | 5,381,887 |
| Total Investments (Cost \$522,631,169*) 159.3% | | 570,287,727 |
| Other Assets Less Liabilities 1.0% | | 3,498,175 |
| Liability for TOB Trust Certificates, Including Interest | | |
| Expense and Fees Payable (20.5%) | | (73,400,331) |
| VRDP Shares, at Liquidation Value (39.8%) | | (142,500,000) |
| Net Assets Applicable to Common Shares 100.0% | | \$ 357,885,571 |

* As of July 31, 2014, gross unrealized appreciation and depreciation based on cost for federal income tax purposes were as follows:

| | |
|-------------------------------|----------------|
| Tax cost | \$ 450,503,907 |
| Gross unrealized appreciation | \$ 48,466,178 |
| Gross unrealized depreciation | (2,061,323) |
| Net unrealized appreciation | \$ 46,404,855 |

Notes to Schedule of Investments

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

BLACKROCK MUNIENHANCED FUND, INC.

JULY 31, 2014

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Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

(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 February 1, 2016 to December 1, 2029 is \$14,921,824.

(f) Investments in issuers considered to be an affiliate of the Fund during the period ended July 31, 2014, 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 July 31, 2014 | Income |
|-----------------------------------|-------------------------------------|-----------------|------------------------------------|--------|
| FBI Institutional Tax-Exempt Fund | 3,108,476 | 2,273,411 | 5,381,887 | \$ 374 |

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

Portfolio Abbreviations

| | |
|----------------|---|
| AGC | Assured Guarantee Corp. |
| AGM | Assured Guaranty Municipal Corp. |
| AMBAC | American Municipal Bond Assurance Corp. |
| AMT | Alternative Minimum Tax (subject to) |
| ARB | Airport Revenue Bonds |
| 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 |
| HDA | Housing Development Authority |
| HFA | Housing Finance Agency |
| HRB | Housing Revenue Bonds |
| IDA | Industrial Development Authority |
| ISD | Independent School District |
| LRB | Lease Revenue Bonds |
| NPFGC | National Public Finance Guarantee Corp. |
| PSF-GTD | Public School Fund Guaranteed |
| RB | Revenue Bonds |
| Syncora | Syncora Guarantee |
| S/F | Single-Family |

Financial futures contracts outstanding as of July 31, 2014 were as follows:

| Contracts Sold | Issue | Exchange | Expiration | Notional Value | Unrealized Appreciation |
|-------------------|----------------------------|------------------------|----------------|-------------------|----------------------------|
| (219) | 10-Year U.S. Treasury Note | Chicago Board of Trade | September 2014 | \$ 27,289,453 | \$ 21,396 |

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

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 annual report.

The following tables summarize the Fund's investments and derivative financial instruments categorized in the disclosure hierarchy as of July 31, 2014:

| | Level 1 | Level 2 | Level 3 | Total |
|------------------------------------|--------------|----------------|---------|----------------|
| Assets: | | | | |
| Investments: | | | | |
| Long-Term Investments ¹ | | \$ 564,905,840 | | \$ 564,905,840 |
| Short-Term Securities | \$ 5,381,887 | | | 5,381,887 |
| Total | \$ 5,381,887 | \$ 564,905,840 | | \$ 570,287,727 |

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 | | | | |
| Assets: | | | | |
| Interest rate contracts | \$ 21,396 | | | \$ 21,396 |

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

Schedule of Investments (concluded)

BlackRock MuniEnhanced Fund, Inc. (MEN)

The Fund may hold assets and/or liabilities in which the fair value approximates the carrying amount for financial reporting purposes. As of July 31, 2014, such assets and/or liabilities are categorized within the disclosure hierarchy as follows:

| | Level 1 | Level 2 | Level 3 | Total |
|--|------------|------------------|---------|------------------|
| Assets: | | | | |
| Cash | \$ 120,872 | | | \$ 120,872 |
| Cash pledged for financial futures contracts | 299,000 | | | 299,000 |
| Liabilities: | | | | |
| TOB trust certificates | | \$ (73,378,965) | | (73,378,965) |
| VRDP Shares | | (142,500,000) | | (142,500,000) |
| Total | \$ 419,872 | \$ (215,878,965) | | \$ (215,459,093) |

There were no transfers between levels during the period ended July 31, 2014.

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: September 25, 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 MuniEnhanced Fund,
Inc.

Date: September 25, 2014

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

Date: September 25, 2014