

BLACKROCK MUNIENHANCED FUND, INC.

Form N-Q

March 26, 2013

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: 04/30/2013

Date of reporting period: 01/31/2013

Item 1 Schedule of Investments

Schedule of Investments January 31, 2013 (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, Series A: | | |
| 5.50%, 1/01/22 | \$ 2,750 | \$ 2,755,693 |
| 4.75%, 1/01/25 | 2,200 | 2,101,484 |
| | | 4,857,177 |
| Alaska 1.2% | | |
| Alaska Housing Finance Corp., RB, General Housing, Series B (NPFGC), | | |
| 5.25%, 12/01/30 | 400 | 417,084 |
| Alaska Housing Finance Corp., Refunding RB, Series A, | | |
| 4.13%, 12/01/37 | 1,265 | 1,302,279 |
| Alaska Industrial Development & Export Authority, RB, Providence Health Services, Series A, | | |
| 5.50%, 10/01/41 | 990 | 1,161,102 |
| Borough of Matanuska-Susitna Alaska, RB, Goose Creek Correctional Center (AGC), | | |
| 6.00%, 9/01/28 | 1,200 | 1,487,412 |
| | | 4,367,877 |
| Arizona 1.5% | | |
| Greater Arizona Development Authority, RB, Series B (NPFGC), | | |
| 5.00%, 8/01/35 | 1,300 | 1,399,203 |
| State of Arizona, COP, Department of Administration, Series A (AGM): | | |
| 5.00%, 10/01/27 | 3,250 | 3,716,992 |
| 5.00%, 10/01/29 | 400 | 454,728 |
| | | 5,570,923 |
| California 22.4% | | |
| Alameda Corridor Transportation Authority, Refunding RB, CAB, Subordinate Lien, Series A (AMBAC): | | |
| 5.40%, 10/01/24 | 10,185 | 11,401,700 |
| 5.45%, 10/01/25(a) | 3,700 | 4,134,047 |
| Anaheim Public Financing Authority California, RB, Senior, Public Improvements Project, Series A (AGM), | | |
| 6.00%, 9/01/24 | 5,000 | 6,210,900 |
| Cabrillo Community College District, GO, CAB, Election of 2004, Series B (NPFGC), | | |
| 4.86%, 8/01/37(b) | 2,400 | 740,256 |
| California Health Facilities Financing Authority, RB: | | |
| St. Joseph Health System, Series A, 5.75%, 7/01/39 | | |
| | 550 | 633,859 |
| Sutter Health, Series B, | | |
| 5.88%, 8/15/31 | 1,200 | 1,453,740 |
| California State University, RB, Systemwide, Series A (NPFGC), | | |
| 5.00%, 5/01/13(c) | 1,405 | 1,421,846 |
| California State University, Refunding RB, Systemwide, Series A (AGM), | | |
| 5.00%, 11/01/37 | 2,000 | 2,231,460 |
| California Statewide Communities Development Authority, RB, Series A, | | |
| 5.00%, 4/01/42 | 1,480 | 1,661,374 |
| City of Redding California, COP, Refunding, Series A (AGM), | | |
| 5.00%, 6/01/30 | 1,420 | 1,609,613 |
| City of San Jose California, Refunding ARB, Series A-1, AMT, | | |
| 5.75%, 3/01/34 | 850 | 986,204 |
| Los Angeles Community College District California, GO, Election of 2001, Series A (AGM), | | |
| 5.00%, 8/01/32 | 1,300 | 1,486,667 |
| Los Angeles Department of Water & Power, RB, Series C (NPFGC), | | |

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| | | |
|---|--------|-----------|
| 5.00%, 7/01/29 | 5,160 | 5,458,970 |
| Metropolitan Water District of Southern California, RB, Series B-1 (NPFGC)(c): | | |
| 5.00%, 10/01/13 | 2,570 | 2,651,957 |
| 5.00%, 10/01/13 | 1,480 | 1,527,197 |
| Orange County Sanitation District, COP: (NPFGC), 5.00%, 8/01/13(c) | 7,455 | 7,632,876 |
| Series B (AGM), 5.00%, 2/01/30 | 1,500 | 1,680,810 |
| Series B (AGM), 5.00%, 2/01/31 | 900 | 1,009,602 |
| Poway Unified School District, GO, Refunding, CAB, School Facilities Improvement Election of 2007, 4.63%, 8/01/36(b) | 3,750 | 1,279,050 |
| Rio Hondo Community College District California, GO, CAB, Election of 2004, Series C, 4.68%, 8/01/38(b) | 5,000 | 1,536,150 |
| San Diego Unified School District California, GO, CAB, Election of 2008, Series C, 4.73%, 7/01/38(b) | 1,600 | 487,376 |
| San Diego Unified School District California, GO, Refunding, CAB, Series R-1(b): 4.13%, 7/01/30 | 5,000 | 2,453,350 |
| 4.20%, 7/01/31 | 1,280 | 595,341 |
| San Joaquin County Transportation Authority, Refunding RB, Limited Tax, Measure K, Series A, 6.00%, 3/01/36 | 2,175 | 2,714,531 |
| San Marcos Unified School District, GO, Election of 2010, Series A: 5.00%, 8/01/34 | 700 | 796,474 |
| 5.00%, 8/01/38 | 600 | 675,540 |
| San Mateo County Community College District, GO, CAB, Election of 2001, Series C (NPFGC), 3.83%, 9/01/30(b) | 12,740 | 6,538,295 |
| State of California, GO, Various Purpose Improvement, 5.00%, 4/01/42 | 1,000 | 1,133,480 |
| State of California, GO, Refunding: 5.00%, 2/01/38 | 2,500 | 2,839,025 |
| Various Purpose, 5.00%, 10/01/41 | 1,000 | 1,127,990 |

BLACKROCK MUNIENHANCED FUND,
INC.

JANUARY 31, 2013

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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) | | |
| Walnut Valley Unified School District, GO, CAB, Election of 2007, Series B, 4.73%, 8/01/36(b) | \$ 5,500 | \$ 1,834,580 |
| West Basin Municipal Water District California, COP, Refunding, Series B (AGC), 5.00%, 8/01/30 | 5,035 | 5,712,107 |
| | | 83,656,367 |
| Colorado 0.6% | | |
| Regional Transportation District, COP, Refunding, Series A, 5.38%, 6/01/31 | 2,000 | 2,284,340 |
| District of Columbia 1.5% | | |
| District of Columbia, RB, Series B-1 (NPFGC), 5.00%, 2/01/31 | 5,480 | 5,683,692 |
| Florida 9.7% | | |
| Broward County Water & Sewer Utility Revenue, Refunding RB, Series A, 5.25%, 10/01/34 | 850 | 983,951 |
| City of Jacksonville Transit Revenue, Refunding RB, Series A, 5.00%, 10/01/30 | 280 | 327,704 |
| Collier County School Board, COP (AGM), 5.00%, 2/15/23 | 3,000 | 3,342,690 |
| County of Duval Florida, COP, Master Lease Program (AGM), 5.00%, 7/01/33 | 2,625 | 2,930,944 |
| County of Lee Florida, Refunding ARB, Series A, AMT: 5.63%, 10/01/26 | 960 | 1,125,130 |
| 5.38%, 10/01/32 | 3,160 | 3,550,608 |
| County of Miami-Dade Florida, GO, Building Better Communities Program, Series B-1, 5.75%, 7/01/33 | 1,400 | 1,637,636 |
| County of Miami-Dade Florida, Refunding RB: Miami International Airport AMT (AGC), 5.00%, 10/01/40 | 9,900 | 10,446,480 |
| Series B, 5.00%, 10/01/37 | 710 | 795,434 |
| Florida Ports Financing Commission, Refunding RB, State Transportation Trust Fund, Series B, AMT: 5.13%, 6/01/27 | 2,000 | 2,314,420 |
| 5.38%, 10/01/29 | 1,050 | 1,233,771 |
| Highlands County Health Facilities Authority, RB, Adventist Health System/Sunbelt, Series B, 6.00%, 11/15/37 | 1,450 | 1,705,577 |
| Hillsborough County Aviation Authority Florida, RB, Series A, AMT (AGC), 5.38%, 10/01/33 | 4,050 | 4,409,923 |
| Sarasota County Public Hospital District, RB, Sarasota Memorial Hospital Project, Series A, 5.63%, 7/01/39 | 275 | 304,815 |
| South Florida Water Management District, COP (AGC), 5.00%, 10/01/22 | 1,000 | 1,134,660 |
| | | 36,243,743 |
| Georgia 8.1% | | |
| Burke County Development Authority, Refunding RB, Oglethorpe Power-Vogtle Project, Series C, 5.70%, 1/01/43 | 1,150 | 1,251,522 |
| City of Atlanta Georgia Department of Aviation, Refunding ARB, General, Series B (AGM), 5.25%, 1/01/33 | 17,355 | 18,320,285 |
| Municipal Electric Authority of Georgia, Refunding RB, Series EE (AMBAC), | | |

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| | | |
|--|-------|------------|
| 7.00%, 1/01/25 | 7,475 | 10,759,814 |
| | | 30,331,621 |
| Illinois 17.9% | | |
| Chicago Illinois Board of Education, GO, Unlimited Tax, | | |
| 5.50%, 12/01/39 | 2,375 | 2,776,399 |
| Chicago Illinois Board of Education, GO, Refunding, Chicago School Reform Board (NPFGC), | | |
| 5.50%, 12/01/26 | 725 | 899,225 |
| Chicago Illinois Transit Authority, RB, Sales Tax Receipts Revenue, | | |
| 5.25%, 12/01/36 | 595 | 686,701 |
| City of Chicago Illinois, GARB: | | |
| O Hare International Airport, General Third Lien, Series A, 5.75%, 1/01/39 | 5,110 | 6,018,711 |
| O Hare International Airport, Third Lien, Series B-2 AMT (AGM), | | |
| 5.75%, 1/01/23 | 5,670 | 5,928,439 |
| Third Lien, Series B-2 AMT (Syncora), | | |
| 6.00%, 1/01/29 | 2,500 | 2,601,775 |
| City of Chicago Illinois, GO, Unlimited Tax, Harbor Facilities Revenues, Series C, | | |
| 5.25%, 1/01/40 | 550 | 627,462 |
| City of Chicago Illinois, Board of Education, GO, Refunding, Series A (AGM), | | |
| 5.50%, 12/01/31 | 2,875 | 3,785,512 |
| Cook County Forest Preserve District, GO, Series C, | | |
| 5.00%, 12/15/37 | 330 | 378,913 |
| Cook County Forest Preserve District, GO, Refunding, Limited Tax Project, Series B, | | |
| 5.00%, 12/15/37 | 285 | 325,997 |
| Illinois Finance Authority, RB, Carle Foundation, Series A: | | |
| 5.75%, 8/15/34 | 650 | 772,980 |
| 6.00%, 8/15/41 | 1,000 | 1,200,300 |
| Illinois HDA, RB, Liberty Arms Senior Apartments, Series D, AMT (AMBAC), | | |
| 4.88%, 7/01/47 | 2,180 | 2,209,910 |
| Illinois Municipal Electric Agency, RB, Series A (NPFGC), | | |
| 5.25%, 2/01/35 | 1,000 | 1,111,760 |

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)
(Percentages shown are based on Net Assets)

| | Par (000) | Value |
|---|--------------|---------------|
| Municipal Bonds | | |
| Illinois (concluded) | | |
| Illinois Sports Facilities Authority, RB, State Tax Supported (AMBAC), 5.50%, 6/15/30 | \$ 17,620 | \$ 19,321,387 |
| Metropolitan Pier & Exposition Authority, RB, CAB, McCormick Place Expansion Project, Series A (NPFGC)(b): 3.73%, 12/15/26 | 5,000 | 2,994,500 |
| 4.46%, 12/15/33 | 9,950 | 3,962,587 |
| Metropolitan Pier & Exposition Authority, Refunding RB, CAB, McCormick Place Expansion Project, Series B (AGM), 4.85%, 6/15/44(b) | 3,450 | 767,177 |
| Railsplitter Tobacco Settlement Authority, RB, 6.00%, 6/01/28 | 675 | 810,614 |
| Regional Transportation Authority, RB, Series A (AMBAC), 7.20%, 11/01/20 | 8,070 | 9,729,676 |
| | | 66,910,025 |
| Indiana 1.2% | | |
| Indiana Finance Authority, RB, First Lien, CWA Authority Project, Series A, 5.25%, 10/01/38 | 1,100 | 1,274,867 |
| Indiana Municipal Power Agency, RB, Series B, 5.75%, 1/01/34 | 400 | 416,764 |
| Indianapolis Local Public Improvement Bond Bank, Refunding RB, Waterworks Project, Series A (AGC): 5.25%, 1/01/29 | 600 | 678,576 |
| 5.50%, 1/01/38 | 1,825 | 2,071,667 |
| | | 4,441,874 |
| Iowa 4.1% | | |
| Iowa Finance Authority, RB, Series A (AGC), 5.63%, 8/15/37 | 5,725 | 6,527,301 |
| Iowa Student Loan Liquidity Corp., RB, Series A-2, AMT: 5.60%, 12/01/26 | 3,670 | 4,202,187 |
| 5.70%, 12/01/27 | 1,670 | 1,915,640 |
| 5.80%, 12/01/29 | 1,125 | 1,285,414 |
| 5.85%, 12/01/30 | 1,170 | 1,334,982 |
| | | 15,265,524 |
| Louisiana 1.3% | | |
| Louisiana Public Facilities Authority, Refunding RB, Christus Health, Series B (AGC), 6.50%, 7/01/30 | 1,250 | 1,483,300 |
| Parish of St. John the Baptist Louisiana, RB, Marathon Oil Corp., Series A, 5.13%, 6/01/37 | 3,150 | 3,365,775 |
| | | 4,849,075 |
| Maine 0.1% | | |
| Maine State Housing Authority, Refunding RB, Series B-1, AMT, 4.00%, 11/15/27 | 335 | 349,720 |
| Massachusetts 1.4% | | |
| Massachusetts HFA, RB, S/F Housing, Series 128, AMT (AGM), | | |

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| | | |
|---|-------|-----------|
| 4.88%, 12/01/38(d) | 475 | 489,611 |
| Massachusetts HFA, Refunding RB, AMT: | | |
| Rental Housing, Series A (AGM), 5.15%, 7/01/26 | 485 | 488,662 |
| Series C, 5.35%, 12/01/42 | 1,150 | 1,240,712 |
| Massachusetts Water Resources Authority, Refunding RB, General, Series A (NPFGC), | | |
| 5.00%, 8/01/34 | 2,700 | 3,100,329 |
| | | 5,319,314 |

Michigan 2.9%

| | | |
|---|-------|------------|
| City of Detroit Michigan, RB, Water Supply System, Second Lien (AGM): | | |
| 6.25%, 7/01/36 | 400 | 466,716 |
| 7.00%, 7/01/36 | 200 | 242,342 |
| City of Detroit Michigan Sewage Disposal System Revenue, Refunding RB: | | |
| Second Lien, Series E (BHAC), 5.75%, 7/01/31 | 2,500 | 2,885,875 |
| Senior Lien, Series B (AGM), 7.50%, 7/01/33 | 500 | 624,795 |
| Lansing Board of Water & Light Utilities System, RB, Series A, | | |
| 5.50%, 7/01/41 | 1,700 | 2,014,007 |
| Michigan State Building Authority, Refunding RB, Facilities Program: | | |
| Series I-A, 5.38%, 10/15/36 | 145 | 168,551 |
| Series I-A, 5.38%, 10/15/41 | 700 | 806,232 |
| Series II-A (AGM), 5.25%, 10/15/36 | 900 | 1,042,884 |
| Michigan State HDA, RB, Series C, AMT, | | |
| 5.50%, 12/01/28 | 1,040 | 1,126,559 |
| Michigan Strategic Fund, Refunding RB, Detroit Edison Co. Project, Series A, AMT (Syncora), | | |
| 5.50%, 6/01/30 | 1,300 | 1,315,106 |
| | | 10,693,067 |

Minnesota 0.8%

| | | |
|--|-------|-----------|
| City of Minneapolis Minnesota, Refunding RB, Fairview Health Services, Series B (AGC), | | |
| 6.50%, 11/15/38 | 2,500 | 3,070,525 |

Mississippi 0.2%

| | | |
|---|-----|---------|
| Medical Center Educational Building Corp., RB, University of Mississippi Medical Center Facilities, | | |
| Expansion & Renovation Project, Series A, | | |
| 5.00%, 6/01/41 | 740 | 841,587 |

BLACKROCK MUNIENHANCED FUND,
INC.

JANUARY 31, 2013

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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 | | |
| Nebraska 0.2% | | |
| Central Plains Energy Project Nebraska, RB, Gas Project No. 3, 5.25%, 9/01/37 | \$ 750 | \$ 847,688 |
| Nevada 3.0% | | |
| City of Carson City Nevada, RB, Carson-Tahoe Hospital Project, Series A (Radian), 5.50%, 9/01/13(c) | 1,250 | 1,287,425 |
| City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Center, 6.00%, 4/01/34 | 850 | 1,000,399 |
| County of Clark Nevada, ARB: Las Vegas-McCarran International Airport, Series A (AGC), 5.25%, 7/01/39 | 3,800 | 4,277,318 |
| Subordinate Lien, Series A-2 (NPFGC), 5.00%, 7/01/30 | 1,000 | 1,046,060 |
| Subordinate Lien, Series A-2 (NPFGC), 5.00%, 7/01/36 | 3,200 | 3,351,520 |
| County of Clark Nevada, RB, Southwest Gas Corp. Project, Series A, AMT (NPFGC), 4.75%, 9/01/36 | 75 | 77,567 |
| | | 11,040,289 |
| New Jersey 6.0% | | |
| New Jersey EDA, RB: Cigarette Tax (Radian), 5.50%, 6/15/14(c) | 600 | 642,966 |
| Cigarette Tax (Radian), 5.75%, 6/15/14(c) | 305 | 327,884 |
| Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/31 | 3,125 | 3,301,531 |
| Motor Vehicle Surcharge, Series A (NPFGC), 5.25%, 7/01/33 | 7,800 | 8,240,622 |
| School Facilities Construction, Series Z (AGC), 6.00%, 12/15/34 | 2,000 | 2,385,340 |
| New Jersey Higher Education Student Assistance Authority, Refunding RB, Series 1, AMT: 5.50%, 12/01/26 | 600 | 678,348 |
| 5.75%, 12/01/27 | 3,870 | 4,422,830 |
| New Jersey Transportation Trust Fund Authority, RB, Transportation System, Series A, 5.50%, 6/15/41 | 2,000 | 2,324,260 |
| | | 22,323,781 |
| New York 5.1% | | |
| Erie County Industrial Development Agency, RB, City School District of Buffalo Project, Series A (AGM), 5.75%, 5/01/28 | 1,500 | 1,745,340 |
| Hudson New York Yards Infrastructure Corp., RB, Series A, 5.75%, 2/15/47 | 700 | 835,317 |
| Metropolitan Transportation Authority, RB, Series C, 6.50%, 11/15/28 | 4,000 | 5,089,840 |
| New York City Transitional Finance Authority, RB, Fiscal 2009, Series S-4: 5.50%, 1/15/33 | 1,600 | 1,869,840 |
| 5.50%, 1/15/34 | 2,750 | 3,185,710 |
| New York HFA, RB, Affordable Housing, Series B, 5.30%, 11/01/37 | 2,500 | 2,643,825 |
| New York State Dormitory Authority, ERB, Series B, 5.75%, 3/15/36 | 1,200 | 1,455,744 |

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| | | |
|--|--------|------------|
| New York State Thruway Authority, Refunding RB, Series I, 5.00%, 1/01/37 | 2,095 | 2,376,777 |
| | | 19,202,393 |
| North Carolina 0.2% | | |
| North Carolina Medical Care Commission, RB, Novant Health Obligation, Series A, 4.75%, 11/01/43 | 750 | 802,598 |
| Ohio 0.5% | | |
| County of Allen Ohio, Refunding RB, Hospital Facilities, Catholic Health Partners, Series A, 5.00%, 5/01/42 | 750 | 839,460 |
| County of Lucas Ohio, Refunding RB, Promedica Healthcare, Series A, 6.50%, 11/15/37 | 530 | 666,279 |
| Kent State University, RB, General Receipts, Series A, 5.00%, 5/01/37 | 430 | 489,314 |
| | | 1,995,053 |
| Pennsylvania 0.3% | | |
| Pennsylvania Turnpike Commission, RB, Subordinate, Special Motor License Fund, 6.00%, 12/01/36 | 575 | 709,056 |
| Philadelphia School District, GO, Series E, 6.00%, 9/01/38 | 400 | 466,108 |
| | | 1,175,164 |
| Puerto Rico 3.1% | | |
| Puerto Rico Sales Tax Financing Corp., RB, First Sub-Series A: 6.38%, 8/01/39 | 3,200 | 3,600,064 |
| 6.00%, 8/01/42 | 2,275 | 2,503,114 |
| Puerto Rico Sales Tax Financing Corp., Refunding RB: CAB, Series A (NPFGC), 5.60%, 8/01/41(b) | 11,000 | 2,280,520 |
| CAB, Series C, 5.56%, 8/01/38(b) | 8,000 | 1,975,840 |
| First Sub-Series C, 6.00%, 8/01/39 | 1,180 | 1,313,836 |
| | | 11,673,374 |

Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)
(Percentages shown are based on Net Assets)

| | Par (000) | Value |
|--|--------------|--------------|
| Municipal Bonds | | |
| Rhode Island 0.7% | | |
| Rhode Island Health & Educational Building Corp., Refunding RB, Public Schools Financing Program, Series E (AGC), 6.00%, 5/15/29 | \$ 2,275 | \$ 2,625,327 |
| South Carolina 1.3% | | |
| South Carolina Jobs-EDA, Refunding RB, Palmetto Health, Series A (AGM), 6.50%, 8/01/39 | 115 | 140,935 |
| South Carolina State Public Service Authority, Refunding RB, Santee Cooper, Series A, 5.50%, 1/01/38 | 1,000 | 1,157,470 |
| South Carolina Transportation Infrastructure Bank, RB, Series A, 5.25%, 10/01/40 | 3,000 | 3,393,360 |
| | | 4,691,765 |
| Tennessee 2.6% | | |
| Memphis Center City Revenue Finance Corp., RB, Subordinate, Pyramid & Pinch District, Series B (AGM), 5.25%, 11/01/30 | 2,955 | 3,463,201 |
| Metropolitan Government of Nashville & Davidson County Health & Educational Facilities Board, Refunding RB, Vanderbilt University, Series B, 5.50%, 10/01/29 | 5,000 | 6,048,800 |
| | | 9,512,001 |
| Texas 12.9% | | |
| Bexar County, Refunding RB, Venue Project, Series 2013, 5.00%, 8/15/39 | 1,420 | 1,573,232 |
| City of Houston Texas Utility System Revenue, Refunding RB, Combined, First Lien, Series A (AGC): 6.00%, 11/15/35 | 2,100 | 2,559,312 |
| 5.38%, 11/15/38 | 1,350 | 1,578,798 |
| Dallas-Fort Worth International Airport Facilities Improvement Corp., RB, Series A (NPFGC), 5.50%, 11/01/33 | 13,000 | 13,225,940 |
| Mansfield ISD Texas, GO, School Building (PSF-GTD), 5.00%, 2/15/33 | 1,725 | 1,955,374 |
| Midland County Fresh Water Supply District No 1, RB, City of Midland Project, Series A, 4.48%, 9/15/36(b) | 2,130 | 747,204 |
| North Texas Tollway Authority, Refunding RB, First Tier: (NPFGC), 5.75%, 1/01/40 | 1,600 | 1,839,936 |
| Series A, 6.00%, 1/01/28 | 2,795 | 3,314,646 |
| Series K-1 System, 5.75%, 1/01/38 | 3,800 | 4,294,380 |
| Series K-2 System, 6.00%, 1/01/38 | 4,015 | 4,595,529 |
| San Antonio Public Facilities Corp., Refunding RB, Convention Center Refinancing and Expansion Project, CAB(b): 4.58%, 9/15/35 | 6,765 | 2,426,809 |
| 4.66%, 9/15/36 | 11,525 | 3,882,657 |
| 4.72%, 9/15/37 | 8,245 | 2,616,303 |
| Texas Municipal Gas Acquisition & Supply Corp. III, RB, Series 2012: 5.00%, 12/15/28 | 1,070 | 1,170,313 |
| 5.00%, 12/15/29 | 1,190 | 1,298,492 |
| Texas Transportation Commission, Refunding RB, Central Texas Turnpike System, First Tier, Series A, 4.00%, 8/15/38 | 1,060 | 1,060,816 |
| | | 48,139,741 |

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| Washington 1.9% | | |
|---|-------|-------------|
| Central Puget Sound Regional Transit Authority, RB, Series A, 5.00%, 11/01/36 | 1,600 | 1,821,712 |
| Washington Health Care Facilities Authority, RB: MultiCare Health System, Series A, 5.00%, 8/15/44 | 270 | 298,906 |
| Providence Health & Services, Series A, 5.00%, 10/01/39 | 900 | 981,297 |
| Providence Health & Services, Series A, 5.25%, 10/01/39 | 625 | 696,700 |
| Washington Health Care Facilities Authority, Providence Health & Services, Refunding RB: Series A, 5.00%, 10/01/42 | 200 | 224,938 |
| Series D (AGM), 5.25%, 10/01/33 | 2,800 | 3,090,584 |
| | | 7,114,137 |
| Wisconsin 0.6% | | |
| Wisconsin Health & Educational Facilities Authority, RB, Ascension Health Senior Credit Group, 5.00%, 11/15/33 | 1,375 | 1,559,387 |
| Wisconsin Health & Educational Facilities Authority, Refunding RB, Froedtert & Community Health, 5.00%, 4/01/42 | 480 | 539,434 |
| | | 2,098,821 |
| Total Municipal Bonds 114.6% | | 427,978,583 |

BLACKROCK MUNIENHANCED FUND,
INC.

JANUARY 31, 2013

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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 (TOB) Trusts(e) | | |
| Arizona 0.8% | | |
| Phoenix Arizona Civic Improvement Corp., RB, Junior Lien, Series A, 5.00%, 7/01/34 | \$ 1,200 | \$ 1,400,016 |
| Salt River Project Agricultural Improvement & Power District, RB, Series A, 5.00%, 1/01/38 | 1,500 | 1,706,685 |
| | | 3,106,701 |
| California 2.0% | | |
| Los Angeles Community College District California, GO, Election of 2001, Series A (AGM), 5.00%, 8/01/32 | 2,500 | 2,858,975 |
| San Diego Community College District California, GO, Election of 2002, 5.25%, 8/01/33 | 404 | 490,866 |
| San Diego County Water Authority, COP, Refunding, Series A (AGM), 5.00%, 5/01/33 | 2,810 | 3,176,312 |
| University of California, RB, Series O, 5.75%, 5/15/34 | 840 | 1,017,545 |
| | | 7,543,698 |
| Colorado 0.3% | | |
| Colorado Health Facilities Authority, Refunding RB, Catholic Health Initiatives, Series A, 5.50%, 7/01/34(f) | 900 | 1,030,180 |
| District of Columbia 1.7% | | |
| District of Columbia, RB, Series A, 5.50%, 12/01/30(f) | 1,005 | 1,227,058 |
| District of Columbia Water & Sewer Authority, Refunding RB, Series A, 6.00%, 10/01/35(f) | 1,770 | 2,148,804 |
| Metropolitan Washington Airports Authority, Refunding ARB, Series A, AMT, 5.00%, 10/01/30 | 2,530 | 2,903,706 |
| | | 6,279,568 |
| Florida 11.2% | | |
| City of Tallahassee Florida, RB (NPFGC): 5.00%, 10/01/32(f) | 4,000 | 4,486,120 |
| 5.00%, 10/01/37 | 7,500 | 8,256,675 |
| County of Miami-Dade Florida, RB: 5.00%, 10/01/39 | 4,621 | 5,171,815 |
| Transit System, Sales Surtax, 5.00%, 7/01/22 | 2,240 | 2,801,792 |
| County of Miami-Dade Florida, Refunding RB, 5.00%, 7/01/42 | 2,240 | 2,240,000 |
| Florida State Board of Education, GO, Series D, 5.00%, 6/01/37(f) | 1,349 | 1,544,461 |
| Miami-Dade County School Board, COP, Refunding, Series B (AGC), 5.00%, 5/01/33 | 10,000 | 11,170,700 |
| Orange County School Board, COP, Series A: (AGC), 5.50%, 8/01/34 | 3,544 | 4,099,887 |
| (NPFGC), 5.00%, 8/01/31 | 2,000 | 2,220,320 |

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41,991,770

Illinois 4.7%

| | | |
|---|-------|-----------|
| City of Chicago Illinois, RB, Motor Fuel Tax Revenue (AGC), 5.00%, 1/01/38 | 2,000 | 2,128,800 |
| City of Chicago Illinois, Refunding RB, Sales Tax Revenue, Series A, 5.00%, 1/01/41 | 3,430 | 3,846,196 |
| Illinois State Toll Highway Authority, RB, Series B, 5.50%, 1/01/33 | 1,880 | 2,139,979 |
| Metropolitan Pier & Exposition Authority, RB, McCormick Place Expansion Project, Series A, 5.00%, 6/15/42 | 270 | 304,499 |
| Metropolitan Pier & Exposition Authority, Refunding RB, McCormick Place Expansion Project, Series B, 4.25%, 6/15/42(f) | 4,000 | 4,168,560 |
| State of Illinois, RB, Build Illinois Bonds, Series B, 5.25%, 6/15/34(f) | 4,399 | 5,040,042 |

17,628,076

Louisiana 1.6%

| | | |
|---|-------|-----------|
| State of Louisiana Gas & Fuels, RB, Series A (AGM), 5.00%, 5/01/36 | 5,400 | 6,010,686 |
|---|-------|-----------|

Massachusetts 3.1%

| | | |
|---|-------|------------|
| Massachusetts School Building Authority, RB, Series A (AGM): 5.00%, 8/15/15(c) | 1,366 | 1,502,861 |
| 5.00%, 8/15/30 | 9,234 | 10,159,290 |

11,662,151

Michigan 1.3%

| | | |
|--|-------|-----------|
| Michigan Finance Authority, Refunding RB, Trinity Health, 5.00%, 12/01/39 | 4,300 | 4,789,727 |
|--|-------|-----------|

Nevada 3.3%

| | | |
|---|-------|-----------|
| City of Las Vegas Nevada, GO, Limited Tax, Performing Arts Center, 6.00%, 4/01/39(f) | 3,778 | 4,406,973 |
| Clark County Water Reclamation District, GO, Series B: 5.50%, 7/01/29 | 4,499 | 5,495,600 |
| 5.75%, 7/01/34 | 1,829 | 2,253,661 |

12,156,234

New Jersey 0.6%

| | | |
|---|-------|-----------|
| New Jersey Transportation Trust Fund Authority, RB, Series B, 5.25%, 6/15/36 | 1,840 | 2,109,229 |
|---|-------|-----------|

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 (e) | | |
| New York 1.6% | | |
| New York City Municipal Water Finance Authority, RB, Fiscal 2009, Series A, 5.75%, 6/15/40 | \$ 1,260 | \$ 1,502,309 |
| Port Authority of New York & New Jersey, Refunding RB, Construction One Hundred Forty-Third, AMT, 5.00%, 10/01/30 | 2,500 | 2,732,575 |
| Triborough Bridge & Tunnel Authority, RB, General, Series A-2, 5.25%, 11/15/34(f) | 1,300 | 1,550,211 |
| | | 5,785,095 |
| Ohio 0.2% | | |
| State of Ohio, RB, Cleveland Clinic Health, Series B, 5.50%, 1/01/34 | 580 | 664,825 |
| Puerto Rico 0.7% | | |
| Puerto Rico Sales Tax Financing Corp., Refunding RB, Series C, 5.25%, 8/01/40 | 2,380 | 2,589,059 |
| South Carolina 2.4% | | |
| Charleston Educational Excellence Finance Corp., RB, Charleston County School (AGC): | | |
| 5.25%, 12/01/28 | 3,120 | 3,451,375 |
| 5.25%, 12/01/29 | 2,765 | 3,052,975 |
| 5.25%, 12/01/30 | 1,010 | 1,108,657 |
| South Carolina State Public Service Authority, Refunding RB, Santee Cooper, Series A, 5.50%, 1/01/38(f) | 1,275 | 1,475,774 |
| | | 9,088,781 |
| South Dakota 0.2% | | |
| South Dakota HDA, Refunding RB, Homeownership Mortgage Series K, 5.05%, 5/01/36 | 623 | 637,916 |
| Texas 1.2% | | |
| Clear Creek ISD Texas, GO, Refunding, School Building (PSF-GTD), 5.00%, 2/15/33 | 2,200 | 2,489,190 |
| North East ISD Texas, GO, School Building, Series A (PSF-GTD), 5.00%, 8/01/37(f) | 1,600 | 1,833,488 |
| | | 4,322,678 |
| Utah 1.5% | | |
| Utah Transit Authority, RB, Series A (AGM), 5.00%, 6/15/36 | 5,000 | 5,739,450 |
| Virginia 0.1% | | |
| Fairfax County IDA Virginia, Refunding RB, Health Care, Inova Health System, Series A, 5.50%, 5/15/35 | 350 | 402,989 |
| Washington 1.2% | | |
| Central Puget Sound Regional Transit Authority, RB, Series A (AGM), 5.00%, 11/01/32 | 4,004 | 4,539,702 |

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| | | | |
|--|----------------|---------------|----------------|
| Wisconsin | 0.4% | | |
| Wisconsin Health & Educational Facilities Authority, Refunding RB, Froedtert & Community Health, Inc., | | | |
| 5.25%, 4/01/39(f) | | 1,430 | 1,589,078 |
| Total Municipal Bonds Transferred to Tender Option Bond (TOB) Trusts | 40.1% | | 149,667,593 |
| Total Long-Term Investments (Cost \$516,302,512) | 154.7% | | 577,646,176 |
| Short-Term Securities | | Shares | |
| Money Market Funds | 2.1% | | |
| FFI Institutional Tax-Exempt Fund, 0.01%(g)(h) | | | |
| | | 7,664,721 | 7,664,721 |
| Total Short-Term Securities | | | 7,664,721 |
| (Cost \$7,664,721) | 2.1% | | |
| Total Investments (Cost \$523,967,233*) | 156.8% | | 585,310,897 |
| Other Assets Less Liabilities | 0.7% | | 2,493,906 |
| Liability for TOB Trust Certificates, Including Interest Expense and Fees Payable | (19.3)% | | (71,971,238) |
| VRDP Shares, at Liquidation Value | (38.2)% | | (142,500,000) |
| Net Assets Applicable to Common Shares | 100.0% | | \$ 373,333,565 |

* As of January 31, 2013, gross unrealized appreciation and gross unrealized depreciation based on cost for federal income tax purposes were as follows:

| | |
|-------------------------------|----------------|
| Tax cost | \$ 452,474,009 |
| Gross unrealized appreciation | \$ 61,560,266 |
| Gross unrealized depreciation | (661,398) |
| Net unrealized appreciation | \$ 60,898,868 |

BLACKROCK MUNIENHANCED FUND,
INC.

JANUARY 31, 2013

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Schedule of Investments (continued)

BlackRock MuniEnhanced Fund, Inc. (MEN)

Notes to Schedule of Investments

- (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 is as of report date.
- (b) Represents a zero-coupon bond. Rate shown reflects the current yield as of report date.
- (c) 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.
- (d) Variable rate security. Rate shown is as of report date.
- (e) Securities represent bonds transferred to a TOB in exchange for which the Fund acquired residual interest certificates. These securities 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 is \$14,410,495.
- (g) Investments in issuers considered to be an affiliate of the Fund during the period ended January 31, 2013, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

| Affiliate | Shares Held at | Net Activity | Shares Held at | Income |
|-----------------------------------|----------------|--------------|------------------|----------|
| | April 30, 2012 | | January 31, 2013 | |
| FFI Institutional Tax-Exempt Fund | 9,127,957 | (1,463,236) | 7,664,721 | \$ 1,194 |

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

Portfolio Abbreviations

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

| | | | |
|--------------|---|--------------|---|
| AGC | Assured Guaranty Corp. | GO | General Obligation Bonds |
| AGM | Assured Guaranty Municipal Corp. | HDA | Housing Development Authority |
| AMBAC | American Municipal Bond Assurance Corp. | HFA | Housing Finance Agency |
| AMT | Alternative Minimum Tax (subject to) | IDA | Industrial Development Authority |
| ARB | Airport Revenue Bonds | ISD | Independent School District |
| BHAC | Berkshire Hathaway Assurance Corp. | NPFGC | National Public Finance Guarantee Corp. |

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| | | | |
|-------------|--------------------------------|----------------|----------------------------------|
| CAB | Capital Appreciation Bonds | PSF-GTD | Permanent School Fund Guaranteed |
| COP | Certificates of Participation | RB | Revenue Bonds |
| EDA | Economic Development Authority | Radian | Radian Financial Guaranty |
| ERB | Education Revenue Bonds | S/F | Single-Family |
| GARB | General Airport Revenue Bonds | Syncora | Syncora Guarantee |

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BLACKROCK MUNIENHANCED FUND,
INC.

JANUARY 31, 2013

Schedule of Investments (concluded)**BlackRock MuniEnhanced Fund, Inc. (MEN)**

Fair Value Measurements Various inputs are used in determining the fair value of investments. 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 and 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)

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 level in the fair value hierarchy within which the fair value measurement falls in its entirety 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 is based on the pricing transparency of the investment 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 other significant accounting policies, please refer to the Fund's most recent financial statements as contained in its semi-annual report.

The following table summarizes the Fund's investments categorized in the disclosure hierarchy as of January 31, 2013:

| | Level 1 | Level 2 | Level 3 | Total |
|------------------------------------|---------------------|-----------------------|----------------|-----------------------|
| Assets: | | | | |
| Investments: | | | | |
| Long-Term Investments ¹ | | \$ 577,646,176 | | \$ 577,646,176 |
| Short-Term Securities | \$ 7,664,721 | | | 7,664,721 |
| Total | \$ 7,664,721 | \$ 577,646,176 | | \$ 585,310,897 |

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

Certain of the Fund's liabilities are held at carrying amount, which approximates fair value for financial reporting purposes. As of January 31, 2013, such liabilities are categorized within the disclosure hierarchy as follows:

| | Level 1 | Level 2 | Level 3 | Total |
|---------------------|----------------|----------------|----------------|--------------|
| Liabilities: | | | | |
| Bank overdraft | | \$ (122,276) | | \$ (122,276) |

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| | | |
|------------------------|-------------------------|-------------------------|
| TOB trust certificates | (71,938,020) | (71,938,020) |
| VRDP shares | (142,500,000) | (142,500,000) |
| Total | \$ (214,560,296) | \$ (214,560,296) |

There were no transfers between levels during the period ended January 31, 2013.

BLACKROCK MUNIENHANCED FUND,
INC.

JANUARY 31, 2013

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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

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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 26, 2013

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 26, 2013

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

Date: March 26, 2013