

BLACKROCK APEX MUNICIPAL FUND INC
Form N-Q
March 31, 2010
UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-05227

Name of Fund: BlackRock Apex Municipal Fund, Inc. (APX)

Fund Address: 100 Bellevue Parkway, Wilmington, DE 19809

Name and address of agent for service: Anne F. Ackerley, Chief Executive Officer, BlackRock Apex Municipal 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: 04/30/2010

Date of reporting period: 01/31/2010

Item 1 Schedule of Investments

Schedule of Investments January 31, 2010 (Unaudited)

BlackRock Apex Municipal Fund, Inc. (APX)
(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Alabama 0.4%		
County of Jefferson Alabama, RB, Series A, 5.25%, 1/01/17	\$ 365	\$ 328,493
Tuscaloosa Special Care Facilities Financing Authority, RB, Capstone Village, Series A, 5.88%, 8/01/36 (a)(b)	1,255	387,092
		<u>715,585</u>
Alaska 1.0%		
Alaska Industrial Development & Export Authority, RB, Williams Lynxs, Alaska Cargoport, AMT, 8.00%, 5/01/23	2,000	1,883,240
Arizona 4.4%		
Maricopa County IDA Arizona, RB, Arizona Charter Schools Project, Series A, 6.63%, 7/01/20	1,100	842,864
Maricopa County IDA Arizona, RB, Sun King Apartments Project, Series A, 6.00%, 11/01/10	10	9,950
Maricopa County IDA Arizona, RB, Sun King Apartments Project, Series A, 6.75%, 5/01/31	1,020	790,265
Phoenix IDA Arizona, Refunding RB, America West Airlines Inc. Project, AMT, 6.30%, 4/01/23	2,950	1,969,450
Pima County IDA, RB, Arizona Charter Schools Project, Series E, 7.25%, 7/01/31	960	929,078
Pima County IDA, Refunding IDR, B, Tucson Electric Power, 5.75%, 9/01/29	460	464,715
Salt Verde Financial Corp., RB, Senior, 5.00%, 12/01/32	1,950	1,713,485
University Medical Center Corp., Arizona, RB, 6.25%, 7/01/29	540	572,702
Yavapai County IDA, Arizona, RB, Yavapai Regional Medical Center, Series A, 6.00%, 8/01/33	500	501,090
		<u>7,793,599</u>
California 2.8%		
California Health Facilities Financing Authority, RB, Cedars-Sinai Medical Center, 5.00%, 8/15/39	765	706,294

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Municipal Bonds	Par (000)	Value
California (concluded)		
California Statewide Communities Development Authority, Refunding RB, Senior Living, Southern California, 7.00%, 11/15/29	\$ 400	\$ 421,680
California Statewide Communities Development Authority, Refunding RB, Senior Living, Southern California, 7.25%, 11/15/41	1,440	1,526,789
City of Fontana California, Special Tax Bonds, Refunding, Community Facilities District No. 22-Sierra, Series H, 6.00%, 9/01/34	1,000	926,290
State of California, GO, 4.50%, 10/01/36	1,755	1,406,773
		4,987,826
Colorado 3.1%		
Colorado Health Facilities Authority, Refunding RB, Christian Living Communities Project, Series A, 5.75%, 1/01/26	450	401,233
Elk Valley Public Improvement Corp., RB, Public Improvement Fee, Series A, 7.30%, 9/01/22	2,800	2,710,876
Plaza Metropolitan District No. 1 Colorado, Tax Allocation Bonds, Public Improvement Fee, Tax Increment, 8.00%, 12/01/25	2,000	1,971,480
Plaza Metropolitan District No. 1 Colorado, Tax Allocation Bonds, Subordinate Public Improvement Fee, Tax Increment, 8.13%, 12/01/25	500	468,935
		5,552,524
Connecticut 2.3%		
Harbor Point Infrastructure Improvement District, Tax Allocation Bonds, Harbor Point Project, Series A, 7.88%, 4/01/39 (c)	1,610	1,610,612
Mohegan Tribe of Indians of Connecticut, RB, Public Improvement, Priority Distribution, 6.25%, 1/01/31	1,785	1,429,767

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.

ACA American Capital Access Corp.
AGC Assured Guaranty Corp.

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AMBAC	American Municipal Bond Assurance Corp.
AMT	Alternative Minimum Tax (subject to)
CAB	Capital Appreciation Bonds
EDA	Economic Development Authority
EDC	Economic Development Corp.
ERB	Education Revenue Bonds
GO	General Obligation Bonds
HDA	Housing Development Authority
IDA	Industrial Development Authority
IDRB	Industrial Development Revenue Bonds
NPFGC	National Public Financed Guarantee Corp.
MRB	Mortgage Revenue Bonds
RB	Revenue Bonds

BLACKROCK APEX MUNICIPAL FUND, INC.

JANUARY 31, 2010

1

Schedule of Investments (continued)

BlackRock Apex Municipal Fund, Inc. (APX)
(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Connecticut (concluded)		
Mohegan Tribe of Indians of Connecticut, RB, Public Improvement, Priority Distribution, 5.25%, 1/01/33 (d)	\$ 1,500	\$ 1,081,560
		<u>4,121,939</u>
District of Columbia 2.2%		
District of Columbia, RB, Methodist Home District of Columbia, Series A, 7.38%, 1/01/30	680	680,272
District of Columbia, RB, Methodist Home District of Columbia, Series A, 7.50%, 1/01/39	1,110	1,102,119
District of Columbia Tobacco Settlement Financing Corp., Refunding RB, Asset-Backed, 6.50%, 5/15/33	730	721,284
Metropolitan Washington Airports Authority, RB, CAB, Second Senior Lien, Series B (AGC), 6.74%, 10/01/39 (e)	9,770	1,435,017
		<u>3,938,692</u>
Florida 9.6%		
Capital Region Community Development District, Florida, Special Assessment Bonds, Capital Improvement, Series A, 7.00%, 5/01/39	645	618,645
County of Miami-Dade, Florida, Refunding RB, Miami International Airport, Series A-1, 5.38%, 10/01/41	485	480,223
Hillsborough County IDA, RB, National Gypsum Co., Series A, AMT, 7.13%, 4/01/30	2,500	1,925,075
Hillsborough County IDA, RB, National Gypsum Co., Series B, AMT, 7.13%, 4/01/30	1,560	1,201,247
Jacksonville Economic Development Commission, RB, Gerdau Ameristeel US Inc., AMT, 5.30%, 5/01/37	900	648,828
Jacksonville Economic Development Commission, Refunding RB, Florida Proton Therapy Institute, Series A, 6.00%, 9/01/17	840	857,892
Lee County IDA Florida, RB, Series A, Lee Charter Foundation, 5.38%, 6/15/37	1,810	1,332,377

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Main Street Community Development District, Special Assessment Bonds, Series B, 6.90%, 5/01/17	345	304,173
Midtown Miami Community Development District, Special Assessment Bonds, Series A, 6.00%, 5/01/24	1,430	1,263,319
Midtown Miami Community Development District, Special Assessment Bonds, Series A, 6.25%, 5/01/37	1,350	1,146,150
Santa Rosa Bay Bridge Authority, RB, 6.25%, 7/01/28	2,140	1,198,464

Municipal Bonds	Par (000)	Value
Florida (concluded)		
Sarasota County Health Facilities Authority, Refunding RB, Village On The Isle Project, 5.50%, 1/01/27	\$ 590	\$ 523,855
Sarasota County Health Facilities Authority, Refunding RB, Village On The Isle Project, 5.50%, 1/01/32	550	470,762
Sarasota County Public Hospital District, RB, Sarasota Memorial Hospital Project, Series A, 5.63%, 7/01/39	470	477,708
Sumter Landing Community Development District Florida, RB, Sub-Series B, 5.70%, 10/01/38	1,615	1,216,725
Tampa Palms Open Space & Transportation Community Development District, RB, Capital Improvement, Richmond Place Project, 7.50%, 5/01/18	2,075	2,074,626
Tolomato Community Development District, Special Assessment Bonds, Special Assessment, 6.65%, 5/01/40	1,850	1,479,482
		<u>17,219,551</u>

Georgia 3.0%		
City of Atlanta Georgia, Tax Allocation Bonds, Princeton Lakes Project, 5.50%, 1/01/31	395	342,050
Clayton County Development Authority, RB, Delta Air Lines Inc. Project, Series A, 8.75%, 6/01/29	1,375	1,413,569
County of Clayton Georgia, Tax Allocation Bonds, Ellenwood Project, 7.50%, 7/01/33	1,640	1,538,894
Gainesville & Hall County Development Authority, Refunding RB, Acts Retirement Life Community, Series A-2, 6.63%, 11/15/39	645	666,736
Rockdale County Development Authority, RB, Visy Paper Project, Series A, AMT, 6.13%, 1/01/34	1,680	<u>1,353,946</u>

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5,315,195

Guam 3.3%

Guam Government Waterworks Authority, Refunding RB, Water, 6.00%, 7/01/25	515	515,675
Guam Government Waterworks Authority, Refunding RB, Water, 5.88%, 7/01/35	1,600	1,552,096
Territory of Guam, GO, Series A, 6.00%, 11/15/19	250	253,895
Territory of Guam, GO, Series A, 6.75%, 11/15/29	440	455,686
Territory of Guam, GO, Series A, 7.00%, 11/15/39	455	466,925
Territory of Guam, RB, Section 30, Series A, 5.63%, 12/01/29	1,000	1,007,810

2

BLACKROCK APEX MUNICIPAL FUND, INC.

JANUARY 31, 2010

Schedule of Investments (continued)

BlackRock Apex Municipal Fund, Inc. (APX)
 (Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Guam (concluded)		
Territory of Guam, RB, Section 30, Series A, 5.75%, 12/01/34	\$ 1,540	\$ 1,557,156
		<u>5,809,243</u>
Illinois 4.8%		
City of Chicago Illinois, Refunding RB, American Airlines Inc. Project, 5.50%, 12/01/30	2,860	1,945,029
Illinois Finance Authority, RB, Clare at Water Tower Project, Series A, 6.13%, 5/15/38 (a)(b)	2,050	821,087
Illinois Finance Authority, RB, Monarch Landing Inc. Facility, Series A, 7.00%, 12/01/37 (a)(b)	575	184,000
Illinois Finance Authority, RB, Roosevelt University Project, 6.50%, 4/01/44	1,700	1,746,444
Illinois Finance Authority, RB, Rush University Medical Center Obligation Group, Series A, 7.25%, 11/01/30	2,000	2,219,840
Illinois Finance Authority, Refunding RB, Primary Health Care Centers Program, 6.60%, 7/01/24	490	434,316
Village of Lincolnshire Illinois, Special Tax Bonds, Sedgebrook Project, 6.25%, 3/01/34	755	595,393
Village of Wheeling Illinois, Tax Allocation Bonds, North Milwaukee/Lake-Cook TIF Project, 6.00%, 1/01/25	750	666,570
		<u>8,612,679</u>
Indiana 2.6%		
Indiana Finance Authority, Refunding RB, Duke Energy Indiana, Inc., Series C, 4.95%, 10/01/40	1,390	1,348,106
Indiana Health & Educational Facilities Financing Authority, Refunding RB, Community Foundation Northwest Indiana, 5.50%, 3/01/37	1,770	1,686,208
Vanderburgh County Redevelopment Commission Indiana, Tax Allocation Bonds, 5.25%, 2/01/31	820	783,838
Vigo County Hospital Authority Indiana, RB, Union Hospital Inc., 5.70%,	440	363,585

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9/01/37 (d) Vigo County Hospital Authority Indiana, RB, Union Hospital Inc., 5.75%, 9/01/42 (d)	545	446,731
		4,628,468

Louisiana 1.2%

Louisiana Local Government Environmental Facilities & Community Development Authority, RB, Westlake Chemical Corp. Projects, 6.75%, 11/01/32	2,000	2,062,440
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Municipal Bonds	Par (000)	Value
Maryland 1.2%		
Maryland EDC, RB, Transportation Facilities Project, Series A, 5.75%, 6/01/35	\$ 420	\$ 424,200
Maryland Health & Higher Educational Facilities Authority, RB, Washington Christian Academy, 5.50%, 7/01/38	410	196,796
Maryland State Energy Financing Administration, RB, Cogeneration, AES Warrior Run, AMT, 7.40%, 9/01/19	1,500	1,500,345
		2,121,341

Massachusetts 2.3%

Massachusetts Development Finance Agency, RB, First Mortgage, Overlook Communities, Series A, 6.25%, 7/01/34	1,845	1,558,508
Massachusetts Development Finance Agency, Refunding RB, Eastern Nazarene College, 5.63%, 4/01/19	1,245	1,120,276
Massachusetts Health & Educational Facilities Authority, RB, Jordan Hospital, Series E, 6.75%, 10/01/33	850	769,786
Massachusetts Health & Educational Facilities Authority, Refunding RB, Milton Hospital, Series C, 5.50%, 7/01/16	500	439,960
Massachusetts Port Authority, RB, Delta Air Lines Inc. Project, Series A, AMT (AMBAC), 5.50%, 1/01/13	280	269,055
		4,157,585

Michigan 2.7%

Advanced Technology Academy, RB, 6.00%, 11/01/37	625	523,681
County of Wayne Michigan, GO, Building Improvement, Series A, 6.75%, 11/01/39	375	390,540

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Monroe County Hospital Finance Authority, Refunding RB, Mercy Memorial Hospital Corp. Obligation, 5.50%, 6/01/35	1,260	980,570
Royal Oak Hospital Finance Authority Michigan, Refunding RB, William Beaumont Hospital, 8.25%, 9/01/39	2,575	2,985,507

4,880,298

Mississippi 0.6%

Mississippi Business Finance Corp., RB, Waste Management Inc. Project, AMT, 6.88%, 3/01/29	1,000	1,003,410
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Missouri 0.5%

Kansas City IDA Missouri, RB, First Mortgage, Bishop Spencer, Series A, 6.50%, 1/01/35	1,000	853,180
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BLACKROCK APEX MUNICIPAL FUND, INC.

JANUARY 31, 2010

3

Schedule of Investments (continued)

BlackRock Apex Municipal Fund, Inc. (APX)
(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Montana 0.5%		
Kirkwood Industrial Development Authority, Montana, RB, Aberdeen Heights, Series A, 8.25%, 5/15/39 (c)	\$ 945	\$ 929,445
Multi-State 0.4%		
MuniMae TE Bond Subsidiary LLC, 7.50% (d)(f)(g)	691	640,739
Nevada 0.2%		
County of Clark Nevada, Special Assessment Bonds, Special Improvement District No. 142, Local Improvement, 6.38%, 8/01/23	380	355,380
New Hampshire 0.4%		
New Hampshire Health & Education Facilities Authority, RB, Catholic Medical Center, 5.00%, 7/01/36	835	697,050
New Jersey 8.8%		
Camden County Pollution Control Financing Authority, Refunding RB, Series A, AMT, 7.50%, 12/01/10	4,885	4,885,928
New Jersey EDA, RB, Cigarette Tax, 5.50%, 6/15/24	1,225	1,202,264
New Jersey EDA, RB, Continental Airlines Inc. Project, AMT, 6.63%, 9/15/12	3,050	3,001,932
New Jersey EDA, RB, Continental Airlines Inc. Project, AMT, 6.25%, 9/15/29	1,000	873,430
New Jersey EDA, Refunding RB, Newark Airport Marriott Hotel, 7.00%, 10/01/14	1,500	1,482,825
New Jersey Educational Facilities Authority, Refunding RB, University of Medicine & Dentistry, Series B, 7.13%, 12/01/23	670	759,619
New Jersey Educational Facilities Authority, Refunding RB, University of Medicine & Dentistry, Series B, 7.50%, 12/01/32	1,065	1,200,575
New Jersey Health Care Facilities Financing Authority, RB, Pascack Valley Hospital Association, 6.63%, 7/01/36 (a)(b)	1,870	19
New Jersey Health Care Facilities Financing Authority, Refunding RB, St.	1,680	1,685,779

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Joseph s Healthcare System, 6.63%, 7/01/38		
New Jersey Transportation Trust Fund Authority, RB, CAB, Transportation System, Series C (AMBAC), 5.05%, 12/15/35 (e)	2,760	557,161
		15,649,532

New York 6.2%		
Brooklyn Arena Local Development Corp., RB, Barclays Center Project, 6.38%, 7/15/43	685	699,344
Chautauqua County Industrial Development Agency, RB, NRG Dunkirk Power Project, 5.88%, 4/01/42	1,710	1,735,171

Municipal Bonds	Par (000)	Value
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New York (concluded)		
Dutchess County Industrial Development Agency New York, RB, St. Francis Hospital, Series B, 7.50%, 3/01/29	\$ 1,000	\$ 983,000
Metropolitan Transportation Authority, RB, Series 2008-C, 6.50%, 11/15/28	2,000	2,283,020
New York City Industrial Development Agency, RB, American Airlines Inc., JFK International Airport, AMT, 8.00%, 8/01/28	720	722,102
New York City Industrial Development Agency, RB, British Airways Plc Project, AMT, 7.63%, 12/01/32	1,730	1,579,836
New York City Industrial Development Agency, RB, Series C, 6.80%, 6/01/28	350	368,732
New York City Industrial Development Agency, RB, Special Needs Facilities Pooled Program, Series C-1, 6.50%, 7/01/24	830	763,700
New York Liberty Development Corp., RB, National Sports Museum Project, Series A, 6.13%, 2/15/19 (a)(b)	630	6
New York State Dormitory Authority, RB, North Shore-Long Island Jewish Health System, Series A, 5.50%, 5/01/37	1,000	1,008,570
Yonkers Industrial Development Agency New York, RB, Sarah Lawrence College Project, Series A, 6.00%, 6/01/41	850	877,600
		11,021,081

North Carolina 1.8%		
North Carolina Medical Care Commission, Refunding RB, First	3,230	3,150,800

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Mortgage, Deerfield, Series A, 6.13%,
11/01/38

Ohio 2.5%

Buckeye Tobacco Settlement Financing
Authority, RB, Asset-Backed, Senior
Series A-2, 5.13%, 6/01/24 2,490 2,304,818

Buckeye Tobacco Settlement Financing
Authority, RB, Asset-Backed, Senior
Series A-2, 6.50%, 6/01/47 2,685 2,251,695

4,556,513

Pennsylvania 7.9%

Allegheny County Hospital Development
Authority, Refunding RB, Health
System, West Penn, Series A, 5.38%,
11/15/40 2,385 1,752,951

Bucks County IDA, RB, Ann s Choice Inc.
Facility, Series A, 6.13%, 1/01/25 1,160 1,086,201

Cumberland County Municipal Authority,
RB, Diakon Lutheran, 6.38%,
1/01/39 2,510 2,449,986

Lancaster County Hospital Authority, RB,
Brethren Village Project, Series A,
6.25%, 7/01/26 475 457,529

Schedule of Investments (continued)

BlackRock Apex Municipal Fund, Inc. (APX)
(Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Pennsylvania (concluded)		
Lancaster County Hospital Authority, RB, Brethren Village Project, Series A, 6.50%, 7/01/40	\$ 410	\$ 384,297
Montgomery County IDA Pennsylvania, MRB, Whitemarsh Continuing Care, 6.25%, 2/01/35	1,700	1,244,570
Pennsylvania Higher Educational Facilities Authority, Refunding RB, Allegheny Delaware Valley Obligation, Series A (NPFGC), 5.88%, 11/15/21	2,320	2,216,273
Philadelphia Authority for Industrial Development, RB, Commercial Development, AMT, 7.75%, 12/01/17	3,000	2,999,520
Philadelphia Authority for Industrial Development, RB, Subordinate, Air Cargo, Series A, AMT, 7.50%, 1/01/25	1,600	1,496,880
		<u>14,088,207</u>
Puerto Rico 1.1%		
Puerto Rico Public Buildings Authority, Refunding RB, Series Q, 5.63%, 7/01/39	985	940,734
Puerto Rico Sales Tax Financing Corp., RB, First Sub-Series A, 6.50%, 8/01/44	1,000	1,067,160
		<u>2,007,894</u>
Rhode Island 0.8%		
Central Falls Detention Facility Corp., Refunding RB, 7.25%, 7/15/35	1,750	1,494,728
South Carolina 0.6%		
Connector 2000 Association Inc., RB, CAB, Senior Series B, 9.22%, 1/01/14 (a)(b)(e)	1,075	206,400
South Carolina Jobs EDA, Refunding RB, Palmetto Health, 5.50%, 8/01/26	670	664,124
South Carolina Jobs EDA, Refunding RB, Palmetto Health, 5.75%, 8/01/39	270	261,438
		<u>1,131,962</u>

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Tennessee 0.1%		
Shelby County Health Educational & Housing Facilities Board, RB, Village at Germantown, 6.25%, 12/01/34	245	205,543
Texas 9.9%		
Bexar County Health Facilities Development Corp., RB, Army Retirement Residence Project, 6.20%, 7/01/45 (c)	2,055	2,054,877
Brazos River Authority, Refunding RB, TXU Electric Co. Project, Series C, AMT, 5.75%, 5/01/36	1,475	1,386,765
Brazos River Authority, Refunding RB, Texas Utility Co., Series, AMT, 7.70%, 4/01/33	2,530	1,644,955
	Par (000)	Value
Municipal Bonds		
Texas (concluded)		
City of Houston Texas, RB, Special Facilities, Continental Airlines, Series E, AMT, 6.75%, 7/01/21	\$ 1,865	\$ 1,780,739
Danbury Higher Education Authority Inc., RB, A.W. Brown Fellowship Charter, Series A (ACA), 5.13%, 8/15/36	1,000	820,650
Harris County Health Facilities Development Corp., Refunding RB, Memorial Hermann Healthcare System, B, 7.25%, 12/01/35	1,110	1,243,600
Matagorda County Navigation District No. 1 Texas, Refunding RB, Central Power & Light Co. Project, Series A, 6.30%, 11/01/29	850	918,306
North Texas Tollway Authority, RB, Toll, Second Tier, Series F, 6.13%, 1/01/31	1,650	1,725,157
Tarrant County Cultural Education Facilities Finance Corp., RB, CC Young Memorial Home, Series A, 8.00%, 2/15/38	710	693,848
Tarrant County Cultural Education Facilities Finance Corp., RB, Senior Living Center Project, Series A, 8.25%, 11/15/44	1,710	1,656,580
Texas Private Activity Bond Surface Transportation Corp., RB, Senior Lien, Note Mobility, 6.88%, 12/31/39	1,605	1,670,757
Texas State Public Finance Authority, Refunding, ERB, Kipp Inc., Series A (ACA), 5.00%, 2/15/28	2,250	2,033,865
		<u>17,630,099</u>
Utah 1.3%		
County of Carbon Utah, Refunding RB, Laidlaw Environmental, Series A, AMT,	2,240	2,243,427

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7.45%, 7/01/17

Virgin Islands 1.4%

United States Virgin Islands, Refunding RB, Senior Secured, Hovensa Coker Project, AMT, 6.50%, 7/01/21	2,100	2,123,709
Virgin Islands Public Finance Authority, RB, Senior Lien, Capital Projects, Series A-1, 5.00%, 10/01/39	340	302,110
		2,425,819

Virginia 1.7%

Dulles Town Center Community Development Authority, Special Assessment Bonds, Dulles Town Center Project, 6.25%, 3/01/26	2,385	2,228,997
Tobacco Settlement Financing Corp. Virginia, Refunding RB, Senior Series B1, 5.00%, 6/01/47	1,250	871,363
		3,100,360

BLACKROCK APEX MUNICIPAL FUND, INC.

JANUARY 31, 2010

5

Schedule of Investments (continued)

BlackRock Apex Municipal Fund, Inc. (APX)
 (Percentages shown are based on Net Assets)

Municipal Bonds	Par (000)	Value
Wisconsin 1.7%		
Wisconsin Health & Educational Facilities Authority, RB, New Castle Place Project, Series A, 7.00%, 12/01/31	\$ 1,320	\$ 1,252,152
Wisconsin Health & Educational Facilities Authority, RB, Wheaton Franciscan Healthcare, 5.25%, 8/15/34	1,425	1,237,669
Wisconsin Health & Educational Facilities Authority, Refunding RB, St. John's Communities Inc., Series A, 7.25%, 9/15/29	175	177,825
Wisconsin Health & Educational Facilities Authority, Refunding RB, St. John's Communities Inc., Series A, 7.63%, 9/15/39	350	358,256
		<u>3,025,902</u>
Wyoming 1.3%		
County of Sweetwater Wyoming, Refunding RB, FMC Corp. Project, AMT, 5.60%, 12/01/35	2,500	2,296,950
Total Municipal Bonds 96.6%		<u>172,308,226</u>

**Municipal Bonds Transferred to Tender
 Option Bond Trusts (h)**

District of Columbia 1.7%		
District of Columbia Water & Sewer Authority, RB, Series A, 6.00%, 10/01/35	2,730	3,048,601
Florida 3.4%		
County of Miami-Dade Florida, RB, Miami International Airport, Series A, AMT (AGC), 5.25%, 10/01/33	6,130	6,063,980

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Virginia 3.2%		
Virginia HDA, RB, Sub-Series H-1 (NPFGC), 5.38%, 7/01/36	5,710	5,753,624
Total Municipal Bonds Transferred to Tender Option Bond Trusts 8.3%		14,866,205
Total Long-Term Investments (Cost \$194,671,060) 104.9%		187,174,431

Short-Term Securities	Shares	
FFI Institutional Tax-Exempt Fund, 0.16% (i)(j)	2,416,026	2,416,026
Total Short-Term Securities (Cost \$2,416,026) 1.4%		2,416,026

	Value
Total Investments (Cost \$197,087,086*) 106.3%	\$ 189,590,457
Liabilities in Excess of Other Assets (2.2)%	(3,923,065)
Liability for Trust Certificates, Including Interest Expense and Fees Payable (4.1)%	(7,291,232)
Net Assets 100.0%	\$ 178,376,160

* The cost and unrealized appreciation (depreciation) of investments as of January 31, 2009, as computed for federal income tax purposes, were as follows:

Aggregate cost	\$ 189,822,719
Gross unrealized appreciation	\$ 8,136,408
Gross unrealized depreciation	(15,654,116)
Net unrealized depreciation	\$ (7,517,708)

- (a) Issuer filed for bankruptcy and/or is in default of interest payments.
- (b) Non-income producing security.
- (c) When-issued security. Unsettled when-issued security transactions were as follows:

Counterparty	Market Value	Unrealized Appreciation (Depreciation)
B.C. Ziegler	\$ 929,445	\$ 9
Raymond C Forbes	\$ 2,054,877	\$ (123)
Stone & Youngberg	\$ 1,610,612	\$ 612

- (d) Security exempt from registration under Rule 144A of the Securities Act of 1933. These securities may be resold in transactions exempt from registration to qualified institutional investors.
- (e) Represents a zero-coupon bond. Rate shown reflects the current yield as of report date
- (f) Security represents a beneficial interest in a trust. The collateral deposited into the trust is federally tax-exempt revenue bonds issued by various state or local governments, or their respective agencies or authorities. The security is subject to remarketing prior to its stated maturity and is subject to mandatory redemption.
- (g) Security is perpetual in nature and has no stated maturity date.
- (h) Securities represent bonds transferred to a tender option bond trust in exchange for which the Fund acquired residual interest certificates. These securities serve as collateral in a financing transaction.
- (i) Investments in companies considered to be an affiliate of the Fund, for purposes of Section 2(a)(3) of the Investment Company Act of 1940, were as follows:

Affiliate	Net Activity	Income
FFI Institutional Tax-Exempt Fund	\$ 2,316,020	\$ 2,542

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

Schedule of Investments (concluded)

BlackRock Apex Municipal Fund, Inc. (APX)

Fair Value Measurements Various inputs are used in determining the fair value of investments, which are as follows:

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

Level 2 other observable inputs (including, but not limited to: quoted prices for similar assets or liabilities in markets that are active, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the assets or liabilities (such as interest rates, yield curves, volatilities, prepayment speeds, loss severities, credit risks and default rates) or other market-corroborated inputs)

Level 3 unobservable inputs based on the best information available in the circumstances, to the extent observable inputs are not available (including the Fund's own assumptions used in determining the fair value of investments)

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

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

Valuation Inputs	Investments in Securities
	Assets
Level 1 - Short-Term Securities	\$ 2,416,026
Level 2 - Long-Term Investments ¹	187,174,431
Level 3	
Total	\$ 189,590,457

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

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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 13(a)-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 Apex Municipal Fund, Inc.

By: /s/ Anne F. Ackerley
Anne F. Ackerley
Chief Executive Officer of
BlackRock Apex Municipal Fund,
Inc.

Date: March 19, 2010

Pursuant to the requirements of the Securities Exchange Act of 1934 and the Investment Company Act of 1940, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ Anne F. Ackerley
Anne F. Ackerley
Chief Executive Officer (principal executive officer) of
BlackRock Apex Municipal Fund,
Inc.

Date: March 19, 2010

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

Date: March 19, 2010