

NUVEEN MUNICIPAL HIGH INCOME OPPORTUNITY FUND

Form N-Q

September 28, 2006

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549**

FORM N-Q

QUARTERLY SCHEDULE OF PORTFOLIO HOLDINGS OF REGISTERED MANAGEMENT INVESTMENT COMPANY

Investment Company Act file number 811-21449

Nuveen Municipal High Income Opportunity Fund

(Exact name of registrant as specified in charter)

333 West Wacker Drive, Chicago, Illinois 60606

(Address of principal executive offices) (Zip code)

Jessica R. Droeger Vice President and Secretary

333 West Wacker Drive, Chicago, Illinois 60606

(Name and address of agent for service)

Registrant's telephone number, including area code: 312-917-7700

Date of fiscal year end: 10/31

Date of reporting period: 7/31/06

Form N-Q is to be used by management investment companies, other than small business investment companies registered on Form N-5 (§§ 239.24 and 274.5 of this chapter), to file reports with the Commission, not later than 60 days after the close of the first and third fiscal quarters, pursuant to rule 30b1-5 under the Investment Company Act of 1940 (17 CFR 270.30b1-5). The Commission may use the information provided on Form N-Q in its regulatory, disclosure review, inspection, and policymaking roles.

A registrant is required to disclose the information specified by Form N-Q, and the Commission will make this information public. A registrant is not required to respond to the collection of information contained in Form N-Q unless the Form displays a currently valid Office of Management and Budget (OMB) control number. Please direct comments concerning the accuracy of the information collection burden estimate and any suggestions for reducing the burden to the Secretary, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-0609. The OMB has reviewed this collection of information under the clearance requirements of 44 U.S.C. § 3507.

Item 1. Schedule of Investments

Portfolio of Investments (Unaudited)

Nuveen Municipal High Income Opportunity Fund (NMZ)

July 31, 2006

**Principal
Amount (000) Description (1)**

**Optional C
Provisions**

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National □ 2.0% (1.5% of Total Investments)

Charter Mac Equity Issuer Trust, Preferred Shares, Series 2004A-4:

\$	5,000	6.000%, 12/31/45 (Mandatory put 4/30/19) (Alternative Minimum Tax)	12/45 at 100
	1,000	5.750%, 12/31/45 (Mandatory put 4/30/15) (Alternative Minimum Tax)	12/45 at 100
	1,000	GMAC Municipal Mortgage Trust, Series B-1, 5.600%, 10/31/39 (Mandatory put 10/31/19) (Alternative Minimum Tax)	10/39 at 100

7,000 Total National

Alabama □ 1.8% (1.3% of Total Investments)

6,200	Baldwin County Eastern Shore Healthcare Authority, Alabama, Hospital Revenue Bonds, Thomas Hospital, Series 1998, 5.750%, 4/01/27 (Pre-refunded 4/01/08)	4/08 at 102
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Arizona □ 4.6% (3.3% of Total Investments)

546	Estrella Mountain Ranch Community Facilities District, Goodyear, Arizona, Special Assessment Lien Bonds, Series 2001A, 7.875%, 7/01/25	7/10 at 102
6,720	Maricopa County Industrial Development Authority, Arizona, Senior Living Facility Revenue Bonds, Christian Care Mesa II Inc., Series 2004A, 6.625%, 1/01/34 (Alternative Minimum Tax)	1/11 at 103
	Phoenix Industrial Development Authority, Arizona, Educational Revenue Bonds, Keystone Montessori School, Series 2004A:	
350	6.375%, 11/01/13	11/11 at 103
790	7.250%, 11/01/23	11/11 at 103
1,715	7.500%, 11/01/33	11/11 at 103
1,645	Pima County Industrial Development Authority, Arizona, Charter School Revenue Bonds, Heritage Elementary School, Series 2004, 7.500%, 7/01/34	7/14 at 100
550	Pima County Industrial Development Authority, Arizona, Charter School Revenue Bonds, Noah Webster Basic Schools Inc., Series 2004, 6.125%, 12/15/34	12/14 at 100
500	Pima County Industrial Development Authority, Arizona, Charter School Revenue Bonds, Pointe Educational Services Charter School, Series 2004, 6.250%, 7/01/14 (ETM)	No Opt.
1,000	Pima County Industrial Development Authority, Arizona, Charter School Revenue Bonds, Pointe Educational Services Charter School, Series 2004, 7.125%, 7/01/24 (Pre-refunded 7/01/14)	7/14 at 100
1,150	Pinal County Industrial Development Authority, Arizona, Correctional Facilities Contract Revenue Bonds, Florence West Prison LLC, Series 2002A, 5.250%, 10/01/22 □ ACA Insured	10/12 at 100
1,000	Tucson Industrial Development Authority, Arizona, Charter School Revenue Bonds, Arizona Agribusiness and Equine Center Charter School, Series 2004A, 5.850%, 9/01/24	9/14 at 100

15,966 Total Arizona

California □ 17.5% (12.4% of Total Investments)

8,000	Alameda Public Finance Authority, California, Revenue Bond Anticipation Notes, Alameda Power and Telecom, Series 2004, 7.000%, 6/01/09	No Opt.
500	California Health Facilities Financing Authority, Health Facility Revenue Bonds, Catholic Healthcare West, Series 2004I, 4.950%, 7/01/26 (Mandatory put 7/01/14)	7/26 at 100
940	California Health Facilities Financing Authority, Hospital Revenue Bonds, Downey Community Hospital, Series 1993, 5.750%, 5/15/15	11/06 at 100
	California State Public Works Board, Lease Revenue Bonds, Department of General Services, Series 2003D:	
1,090	5.000%, 6/01/21	12/13 at 100

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1,170	5.100%, 6/01/23	12/13 at 100
3,000	California State Public Works Board, Lease Revenue Bonds, Department of Mental Health, Coalinga State Hospital, Series 2004A, 5.000%, 6/01/25	6/14 at 100
2,925	California Statewide Community Development Authority, Revenue Bonds, Epidaurus Project, Series 2004A, 7.750%, 3/01/34	3/14 at 102
1,010	California Statewide Community Development Authority, Subordinate Lien Multifamily Housing Revenue Bonds, Corona Park Apartments, Series 2004I-S, 7.750%, 1/01/34 (Alternative Minimum Tax)	1/14 at 100
3,360	California, General Obligation Bonds, Series 2003, 5.000%, 11/01/21	11/13 at 100
4,975	Golden State Tobacco Securitization Corporation, California, Enhanced Tobacco Settlement Asset-Backed Bonds, Series 2003B, 5.625%, 6/01/33 (Pre-refunded 6/01/13)	6/13 at 100
5,500	Golden State Tobacco Securitization Corporation, California, Tobacco Settlement Asset-Backed Bonds, Series 2003A-1, 6.750%, 6/01/39	6/13 at 100
1,000	Golden State Tobacco Securitization Corporation, California, Tobacco Settlement Asset-Backed Revenue Bonds, Series 2003A-2, 7.900%, 6/01/42	6/13 at 100
	Huntington Beach, California, Special Tax Bonds, Community Facilities District 2003-1, Huntington Center, Series 2004:	
500	5.800%, 9/01/23	9/14 at 100
1,000	5.850%, 9/01/33	9/14 at 100
2,500	Independent Cities Lease Finance Authority, California, Revenue Bonds, El Granada Mobile Home Park, Series 2004A, 6.450%, 5/15/44	5/14 at 100
1,015	Independent Cities Lease Finance Authority, California, Subordinate Lien Revenue Bonds, El Granada Mobile Home Park, Series 2004B, 6.500%, 5/15/44	5/14 at 100
1,200	Lake Elsinore, California, Special Tax Bonds, Community Facilities District 2003-2 Improvement Area A, Canyon Hills, Series 2004A, 5.950%, 9/01/34	9/13 at 102
3,400	Lee Lake Water District, Riverside County, California, Special Tax Bonds, Community Facilities District 3, Series 2004, 5.950%, 9/01/34	9/13 at 102
300	Los Angeles Regional Airports Improvement Corporation, California, Sublease Revenue Bonds, Los Angeles International Airport, American Airlines Inc. Terminal 4 Project, Series 2002B, 7.500%, 12/01/24 (Alternative Minimum Tax)	12/12 at 102
2,950	Los Angeles Regional Airports Improvement Corporation, California, Sublease Revenue Bonds, Los Angeles International Airport, American Airlines Inc. Terminal 4 Project, Series 2002C, 7.500%, 12/01/24 (Alternative Minimum Tax)	12/12 at 102
	Moreno Valley Unified School District, Riverside County, California, Special Tax Bonds, Community Facilities District, Series 2004:	
800	5.550%, 9/01/29	9/14 at 100
1,250	5.650%, 9/01/34	9/14 at 100
1,555	Murrieta Valley Unified School District, Riverside County, California, Special Tax Bonds, Community Facilities District 2000-1, Series 2004B, 5.300%, 9/01/34	9/11 at 100
1,000	Oceanside, California, Special Tax Revenue Bonds, Community Facilities District of Morro Hills, Series 2004, 5.750%, 9/01/28	3/14 at 100
	Orange County, California, Special Tax Bonds, Community Facilities District 03-1 of Ladera Ranch, Series 2004A:	
500	5.500%, 8/15/23	8/12 at 101
1,625	5.600%, 8/15/28	8/12 at 101
1,000	5.625%, 8/15/34	8/12 at 101
2,250	San Diego County, California, Certificates of Participation, San Diego-Imperial Counties Developmental Services Foundation Project, Series 2002, 5.500%, 9/01/27	9/12 at 100

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3,895	West Patterson Financing Authority, California, Special Tax Bonds, Community Facilities District 2001-1, Series 2004A, 6.125%, 9/01/39	9/13 at 103
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60,210	Total California	
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Colorado 8.7% (6.1% of Total Investments)

925	Bradburn Metropolitan District 3, Colorado, General Obligation Bonds, Series 2003, 7.500%, 12/01/33	12/13 at 101
5,600	Buffalo Ridge Metropolitan District, Colorado, Limited Obligation Assessment Bonds, Series 2003, 7.500%, 12/01/33	12/13 at 101
400	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Academy Charter School Douglas County School District Re. 1, Series 2000, 6.875%, 12/15/20	12/10 at 101
650	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Bromley East Charter School, Series 2000A, 7.250%, 9/15/30 (Pre-refunded 9/15/11)	9/11 at 100
920	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Compass Montessori Elementary Charter School, Series 2000, 7.750%, 7/15/31 (Pre-refunded 7/15/08)	7/08 at 100
3,500	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Denver Arts and Technology Academy, Series 2003, 8.000%, 5/01/34	5/14 at 101
	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Excel Academy Charter School, Series 2003:	
500	7.300%, 12/01/23 (Pre-refunded 12/01/11)	12/11 at 100
875	7.500%, 12/01/33 (Pre-refunded 12/01/11)	12/11 at 100
1,797	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Jefferson County School District R-1 Compass Montessori Secondary School, Series 2002, 8.000%, 2/15/32	2/12 at 100
1,450	Colorado Educational and Cultural Facilities Authority, Charter School Revenue Bonds, Weld County School District 6 Frontier Academy, Series 2001, 7.250%, 6/01/20	6/11 at 100
1,500	Colorado Educational and Cultural Facilities Authority, Independent School Improvement Revenue Bonds, Heritage Christian School of Northern Colorado, Series 2004A, 7.500%, 6/01/34	6/14 at 100
900	Colorado Housing and Finance Authority, Multifamily Project Bonds, Class II Series 2002C-6, 5.300%, 10/01/42	10/12 at 100
4,300	Denver Health and Hospitals Authority, Colorado, Revenue Bonds, Series 2004A, 6.250%, 12/01/33	12/14 at 100
1,000	Denver, Colorado, FHA-Insured Multifamily Housing Mortgage Loan Revenue Bonds, Garden Court Community Project, Series 1998, 5.400%, 7/01/39	7/08 at 102
1,250	Mesa County, Colorado, Residential Care Facilities Mortgage Revenue Bonds, Hilltop Community Resources Inc. Obligated Group, Series 2001A, 5.250%, 12/01/21 RAAI Insured	12/11 at 101
2,000	Park Creek Metropolitan District, Colorado, Limited Tax Obligation Revenue Bonds, Series 2003CR-2, 7.875%, 12/01/32 (Mandatory put 12/01/13)	12/32 at 100
	Tallyn's Reach Metropolitan District 2, Aurora, Colorado, Limited Tax General Obligation Bonds, Series 2004:	
250	6.000%, 12/01/18	12/13 at 100
315	6.375%, 12/01/23	12/13 at 100
	Tallyn's Reach Metropolitan District 3, Aurora, Colorado, Limited Tax General Obligation Bonds, Series 2004:	
500	6.625%, 12/01/23	12/13 at 100
500	6.750%, 12/01/33	12/13 at 100

29,132	Total Colorado	
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Connecticut □ 0.6% (0.4% of Total Investments)

1,025	Eastern Connecticut Resource Recovery Authority, Solid Waste Revenue Bonds, Wheelabrator Lisbon Project, Series 1993A, 5.500%, 1/01/20 (Alternative Minimum Tax)	1/07 at 100
1,000	Mashantucket Western Pequot Tribe, Connecticut, Subordinate Special Revenue Bonds, Series 2006A, 5.500%, 9/01/36	9/16 at 100
2,025	Total Connecticut	

Florida □ 9.2% (6.5% of Total Investments)

4,390	Bartram Springs Community Development District, Duval County, Florida, Special Assessment Bonds, Series 2003A, 6.650%, 5/01/34	5/13 at 102
700	Broward County, Florida, Airport Facility Revenue Bonds, Learjet Inc., Series 2000, 7.500%, 11/01/20 (Alternative Minimum Tax)	11/14 at 101
1,175	Century Gardens Community Development District, Miami-Dade County, Florida, Special Assessment Revenue Bonds, Series 2004, 5.900%, 5/01/34	5/14 at 101
	Islands at Doral Northeast Community Development District, Miami-Dade County, Florida, Special Assessment Bonds, Series 2004:	
470	6.125%, 5/01/24	5/14 at 101
450	6.250%, 5/01/34	5/14 at 101
6,880	Lee County Industrial Development Authority, Florida, Multifamily Housing Revenue Bonds, Legacy at Lehigh Project, Senior Series 2003A, 6.000%, 12/01/43 (5)	No Opt.
630	Lexington Community Development District, Florida, Special Assessment Revenue Bonds, Series 2004, 6.125%, 5/01/34	5/14 at 101
3,330	Meadowwoods Community Development District, Pasco County, Florida, Special Assessment Revenue Bonds, Series 2004A, 6.050%, 5/01/35	5/14 at 101
3,887	MMA Financial CDD Junior Securitization Trust, Florida, Pass-Through Certificates, Class A, Series 2003I, 8.000%, 11/01/13	11/07 at 100
3,900	Palm Beach County Housing Finance Authority, Florida, Multifamily Housing Revenue Bonds, Lake Delray Apartments, Series 1999A, 6.400%, 1/01/31 (Alternative Minimum Tax)	7/09 at 103
1,700	South-Dade Venture Community Development District, Florida, Special Assessment Revenue Bonds, Series 2004, 6.125%, 5/01/34	5/14 at 101
	Stonegate Community Development District, Florida, Special Assessment Revenue Bonds, Series 2004:	
470	6.000%, 5/01/24	5/14 at 101
500	6.125%, 5/01/34	5/14 at 101
	Westchester Community Development District 1, Florida, Special Assessment Bonds, Series 2003:	
145	6.000%, 5/01/23	5/13 at 101
3,750	6.125%, 5/01/35	5/13 at 101
32,377	Total Florida	

Georgia □ 1.0% (0.7% of Total Investments)

500	Effingham County Development Authority, Georgia, Solid Waste Disposal Revenue Bonds, Ft. James Project, Series 1998, 5.625%, 7/01/18 (Alternative Minimum Tax)	7/08 at 102
900	Fulton County Residential Care Facilities Authority, Georgia, Revenue Bonds, Canterbury Court, Series 2004A, 6.125%, 2/15/34	2/09 at 100
1,955	Fulton County Residential Care Facilities Authority, Georgia, Revenue Bonds, St. Anne's	12/13 at 102

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Terrace, Series 2003, 7.625%, 12/01/33

3,355 Total Georgia

Illinois □ 11.3% (8.0% of Total Investments)

2,000	Chicago, Illinois, Certificates of Participation Tax Increment Revenue Notes, Chicago/Kingsbury Redevelopment Project, Series 2004A, 6.570%, 2/15/13	12/08 at 100
	Illinois Health Facilities Authority, FHA-Insured Mortgage Revenue Refunding Bonds, Sinai Health System, Series 2003:	
5,000	5.000%, 8/15/24	8/13 at 100
10,000	5.100%, 8/15/33	8/13 at 100
5,000	5.150%, 2/15/37	8/13 at 100
1,000	Illinois Health Facilities Authority, Revenue Bonds, Condell Medical Center, Series 2002, 5.500%, 5/15/32	5/12 at 100
8,800	Illinois Health Facilities Authority, Revenue Bonds, Lake Forest Hospital, Series 2002A, 5.750%, 7/01/29	7/12 at 100
1,400	Illinois Health Facilities Authority, Revenue Bonds, Midwest Physicians Group Ltd., Series 1998, 5.500%, 11/15/19	11/08 at 102
795	Illinois Health Facilities Authority, Revenue Bonds, Victory Health Services, Series 1997A, 5.750%, 8/15/27 (Pre-refunded 8/15/07)	8/07 at 101
1,650	Lombard Public Facilities Corporation, Illinois, First Tier Conference Center and Hotel Revenue Bonds, Series 2005A-1, 7.125%, 1/01/36	1/16 at 100
1,062	Lombard Public Facilities Corporation, Illinois, Third Tier Conference Center and Hotel Revenue Bonds, Series 2005C-3, 4.000%, 1/01/36	1/07 at 100
2,065	Plano Special Service Area 1, Illinois, Special Tax Bonds, Lakewood Springs Project, Series 2004A, 6.200%, 3/01/34	3/14 at 102
1,000	Yorkville, Illinois, Special Service Area 2005-108 Assessment Bonds, Autumn Creek Project, Series 2006, 6.000%, 3/01/36	3/16 at 102

39,772 Total Illinois

Indiana □ 3.5% (2.5% of Total Investments)

6,360	Carmel Redevelopment District, Indiana, Tax Increment Revenue Bonds, Series 2004A, 6.650%, 1/15/24	7/12 at 103
	Indiana Health Facility Financing Authority, Hospital Revenue Bonds, Community Foundation of Northwest Indiana, Series 2004A:	
500	6.250%, 3/01/25	3/14 at 101
2,500	6.000%, 3/01/34	3/14 at 101
1,000	St. Joseph County, Indiana, Economic Development Revenue Bonds, Chicago Trail Village Apartments, Series 2005A, 7.500%, 7/01/35	7/15 at 103
1,865	Whitley County, Indiana, Solid Waste and Sewerage Disposal Revenue Bonds, Steel Dynamics Inc., Series 1998, 7.250%, 11/01/18 (Alternative Minimum Tax)	11/10 at 102

12,225 Total Indiana

Louisiana □ 6.6% (4.7% of Total Investments)

2,500	Carter Plantation Community Development District, Livingston Parish, Louisiana, Special Assessment Bonds, Series 2004, 5.500%, 5/01/16	11/06 at 100
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8,500	Hodge, Louisiana, Combined Utility System Revenue Bonds, Smurfit-Stone Container Corporation, Series 2003, 7.450%, 3/01/24 (Alternative Minimum Tax)	No Opt.
2,600	Lafourche Parish Housing Authority, Louisiana, GNMA Collateralized Mortgage Loan Multifamily Mortgage Revenue Bonds, City Place II Apartments, Series 2001, 6.700%, 1/20/40	1/11 at 105
1,000	Louisiana Local Government Environmental Facilities and Community Development Authority, Revenue Bonds, CDF Healthcare of Louisiana LLC, Series 2006A, 7.000%, 6/01/36	6/16 at 101
	Ouachita Parish Industrial Development Authority, Louisiana, Solid Waste Disposal Revenue Bonds, White Oaks Project, Series 2004A:	
865	8.250%, 3/01/19 (Alternative Minimum Tax)	3/10 at 102
805	8.500%, 3/01/24 (Alternative Minimum Tax)	3/10 at 102
5,125	St. James Parish, Louisiana, Solid Waste Disposal Revenue Bonds, Freeport McMoran Project, Series 1992, 7.700%, 10/01/22 (Alternative Minimum Tax)	10/06 at 100
1,000	Tobacco Settlement Financing Corporation, Louisiana, Tobacco Settlement Asset-Backed Bonds, Series 2001B, 5.875%, 5/15/39	5/11 at 101

22,395 Total Louisiana

Maine ☐ 0.9% (0.6% of Total Investments)

3,155	Portland Housing Development Corporation, Maine, Section 8 Assisted Senior Living Revenue Bonds, Avesta Housing Development Corporation, Series 2004A, 6.000%, 2/01/34	2/14 at 102
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Maryland ☐ 3.4% (2.4% of Total Investments)

2,000	Maryland Energy Financing Administration, Revenue Bonds, AES Warrior Run Project, Series 1995, 7.400%, 9/01/19 (Alternative Minimum Tax)	9/07 at 100
3,850	Maryland Health and Higher Educational Facilities Authority, Revenue Bonds, MedStar Health, Series 2004, 5.500%, 8/15/33	8/14 at 100
7,435	Prince George's County, Maryland, Revenue Bonds, Dimensions Health Corporation, Series 1994, 5.300%, 7/01/24	1/07 at 100

13,285 Total Maryland

Massachusetts ☐ 1.0% (0.7% of Total Investments)

635	Massachusetts Development Finance Agency, Pioneer Valley Resource Recovery Revenue Bonds, Eco/Springfield LLC, Series 2006, 5.875%, 7/01/14 (Alternative Minimum Tax)	No Opt.
1,350	Massachusetts Health and Educational Facilities Authority, Revenue Bonds, Northern Berkshire Community Services Inc., Series 2004B, 6.375%, 7/01/34	7/14 at 100
1,450	Massachusetts Housing Finance Agency, Rental Housing Mortgage Revenue Bonds, Series 2000H, 6.650%, 7/01/41 ☐ MBIA Insured (Alternative Minimum Tax)	7/10 at 100

3,435 Total Massachusetts

Michigan ☐ 5.3% (3.8% of Total Investments)

1,290	Countryside Charter School, Berrien County, Michigan, Charter School Revenue Bonds, Series 1999, 7.000%, 4/01/29	4/09 at 100
900	Countryside Charter School, Berrien County, Michigan, Charter School Revenue Bonds, Series 2000, 8.000%, 4/01/29	4/09 at 100
1,440	Detroit Local Development Finance Authority, Michigan, Tax Increment Bonds, Series 1998A, 5.500%, 5/01/21	5/09 at 101

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3,580	Michigan State Hospital Finance Authority, Hospital Revenue Refunding Bonds, Detroit Medical Center Obligated Group, Series 1993B, 5.500%, 8/15/23	8/06 at 100
1,500	Michigan State Hospital Finance Authority, Revenue Bonds, Hills and Dales General Hospital, Series 2005A, 6.750%, 11/15/38	11/15 at 102
1,200	Midland County Economic Development Corporation, Michigan, Subordinated Pollution Control Limited Obligation Revenue Refunding Bonds, Midland Cogeneration Project, Series 2000A, 6.875%, 7/23/09 (Alternative Minimum Tax)	7/07 at 101
2,705	Nataki Talibah Schoolhouse, Wayne County, Michigan, Certificates of Participation, Series 2000, 8.250%, 6/01/30	6/10 at 102
	Pontiac Hospital Finance Authority, Michigan, Hospital Revenue Refunding Bonds, NOMC Obligated Group, Series 1993:	
1,000	6.000%, 8/01/13	8/06 at 100
1,500	6.000%, 8/01/18	8/06 at 100
1,800	6.000%, 8/01/23	8/06 at 100
2,500	Saginaw Hospital Finance Authority, Michigan, Hospital Revenue Bonds, Covenant Medical Center, Series 2004G, 5.125%, 7/01/22	7/14 at 100

19,415 Total Michigan

Minnesota □ 2.8% (2.0% of Total Investments)

Minneapolis, Minnesota, Student Housing Revenue Bonds, Riverton Community Housing Project, Series 2000:

100	7.200%, 7/01/14 (Pre-refunded 7/01/10)	7/10 at 100
100	7.300%, 7/01/15 (Pre-refunded 7/01/10)	7/10 at 100
1,325	Ramsey, Anoka County, Minnesota, Charter School Lease Revenue Bonds, PACT Charter School, Series 2004A, 6.750%, 12/01/33	6/14 at 102
5,000	St. Louis Park, Minnesota, Revenue Bonds, Park Nicollet Health Services, Series 2003B, 5.250%, 7/01/30	7/14 at 100
1,430	St. Paul Housing and Redevelopment Authority, Minnesota, Charter School Revenue Bonds, Higher Ground Academy Charter School, Series 2004A, 6.625%, 12/01/23	6/14 at 102
1,100	St. Paul Housing and Redevelopment Authority, Minnesota, Charter School Revenue Bonds, HOPE Community Academy Charter School, Series 2004A, 6.750%, 12/01/33	6/14 at 102
1,000	St. Paul Port Authority, Minnesota, Lease Revenue Bonds, HealthEast Midway Campus, Series 2005B, 6.000%, 5/01/30	5/15 at 100

10,055 Total Minnesota

Mississippi □ 0.3% (0.2% of Total Investments)

1,000	Mississippi Home Corporation, Multifamily Housing Revenue Bonds, Tupelo Personal Care Apartments, Series 2004-2, 6.125%, 9/01/34 (Alternative Minimum Tax)	10/19 at 101
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Missouri □ 0.7% (0.5% of Total Investments)

2,355	Kansas City Industrial Development Authority, Missouri, Multifamily Housing Revenue Bonds, Pickwick Apartments Project, Series 2004, 8.000%, 2/01/34 (Alternative Minimum Tax)	2/14 at 102
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Montana □ 2.0% (1.4% of Total Investments)

5,200	Montana Board of Investments, Exempt Facility Revenue Bonds, Stillwater Mining Company, Series 2000, 8.000%, 7/01/20 (Alternative Minimum Tax)	7/10 at 101
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1,980 Montana Board of Investments, Resource Recovery Revenue Bonds, Yellowstone Energy LP, Series 1993, 7.000%, 12/31/19 (Alternative Minimum Tax)

No Opt.

7,180 Total Montana

Nevada 2.6% (1.8% of Total Investments)

3,670 Clark County, Nevada, Industrial Development Revenue Bonds, Nevada Power Company Project, Series 1995C, 5.500%, 10/01/30

1/07 at 100

2,000 Clark County, Nevada, Industrial Development Revenue Bonds, Nevada Power Company, Series 1995A, 5.600%, 10/01/30 (Alternative Minimum Tax)

1/07 at 100

500 Clark County, Nevada, Industrial Development Revenue Bonds, Nevada Power Company, Series 1997A, 5.900%, 11/01/32 (Alternative Minimum Tax)

11/06 at 100

1,500 Clark County, Nevada, Local Improvement Bonds, Mountain's Edge Special Improvement District 142, Series 2003, 6.375%, 8/01/23

8/06 at 103

1,550 Director of Nevada State Department of Business and Industry, Revenue Bonds, Las Vegas Monorail Project, Second Tier, Series 2000, 7.375%, 1/01/40

1/10 at 102

9,220 Total Nevada

New Jersey 4.1% (2.9% of Total Investments)

1,000 New Jersey Economic Development Authority, Revenue Bonds, United Methodist Homes of New Jersey Obligated Group, Series 1998, 5.125%, 7/01/25

1/08 at 102

1,510 New Jersey Economic Development Authority, Special Facilities Revenue Bonds, Continental Airlines Inc., Series 1999, 6.250%, 9/15/29 (Alternative Minimum Tax)

9/09 at 101

500 New Jersey Health Care Facilities Financing Authority, Revenue Bonds, Trinitas Hospital Obligated Group, Series 2000, 7.500%, 7/01/30

7/10 at 101

Tobacco Settlement Financing Corporation, New Jersey, Tobacco Settlement Asset-Backed Bonds, Series 2003:

7,825 6.750%, 6/01/39

6/13 at 100

2,760 7.000%, 6/01/41

6/13 at 100

13,595 Total New Jersey

New Mexico 1.3% (0.9% of Total Investments)

4,500 Jicarilla Apache Nation, New Mexico, Revenue Bonds, Series 2002A, 5.000%, 9/01/18

9/13 at 101

New York 4.9% (3.5% of Total Investments)

4,000 Dormitory Authority of the State of New York, Revenue Bonds, Lenox Hill Hospital Obligated Group, Series 2001, 5.500%, 7/01/30

7/11 at 101

1,000 New York City Industrial Development Agency, New York, American Airlines-JFK International Airport Special Facility Revenue Bonds, Series 2005, 7.750%, 8/01/31 (Alternative Minimum Tax)

8/16 at 101

500 New York City Industrial Development Agency, New York, Liberty Revenue Bonds, 7 World Trade Center, Series 2005A, 6.250%, 3/01/15

3/09 at 103

1,700 New York City Industrial Development Agency, New York, Special Facilities Revenue Bonds, American Airlines Inc., Series 1994, 6.900%, 8/01/24 (Alternative Minimum Tax)

8/06 at 100

750 New York City Industrial Development Agency, New York, Special Facilities Revenue Bonds, JFK Airport American Airlines Inc., Series 2002A, 8.000%, 8/01/12 (Alternative Minimum Tax)

No Opt.

New York State Tobacco Settlement Financing Corporation, Tobacco Settlement Asset-Backed and

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State Contingency Contract-Backed Bonds, Series 2003B-1C:

4,000	5.500%, 6/01/21	6/13 at 100
5,000	5.500%, 6/01/22	6/13 at 100

16,950 Total New York

North Carolina □ 1.5% (1.1% of Total Investments)

5,500	North Carolina Capital Facilities Finance Agency, Solid Waste Facilities Revenue Bonds, Liberty Tire Services of North Carolina LLC, Series 2004A, 6.750%, 7/01/29	7/12 at 106
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Ohio □ 4.1% (2.9% of Total Investments)

Belmont County, Ohio, Revenue Bonds, Ohio Valley Health Services and Education Corporation, Series 1998:

500	5.700%, 1/01/13	1/08 at 102
400	5.800%, 1/01/18	1/08 at 102
3,375	Cleveland-Cuyahoga County Port Authority, Ohio, Development Revenue Bonds, Bond Fund Program □ Garfield Heights Project, Series 2004D, 5.250%, 5/15/23	5/14 at 102
7,600	Ohio Water Development Authority, Solid Waste Disposal Revenue Bonds, Bay Shore Power, Series 1998A, 5.875%, 9/01/20 (Alternative Minimum Tax)	9/08 at 102
1,000	Ohio, Environmental Facilities Revenue Bonds, Ford Motor Company, Series 2005, 5.750%, 4/01/35 (Alternative Minimum Tax)	4/15 at 100
800	Toledo-Lucas County Port Authority, Ohio, Port Revenue Bonds, Cargill Inc., Series 2004A, 4.800%, 3/01/22	3/14 at 101
1,275	Trumbull County, Ohio, Sewerage Disposal Revenue Bonds, General Motors Corporation, Series 1994, 6.750%, 7/01/14 (Alternative Minimum Tax)	No Opt.

14,950 Total Ohio

Oklahoma □ 4.6% (3.3% of Total Investments)

1,000	Okeene Municipal Hospital and Schallmo Authority, Oklahoma, Revenue Bonds, Series 2006, 7.000%, 1/01/35	1/16 at 101
	Oklahoma Development Finance Authority, Revenue Refunding Bonds, Hillcrest Healthcare System, Series 1999A:	
1,200	5.750%, 8/15/15 (Pre-refunded 8/15/09)	8/09 at 101
11,680	5.625%, 8/15/29 (Pre-refunded 8/15/09)	8/09 at 101
850	Tulsa Industrial Authority, Oklahoma, Student Housing Revenue Bonds, University of Tulsa, Series 2006, 5.000%, 10/01/37	10/16 at 100
1,335	Tulsa Municipal Airport Trust, Oklahoma, Revenue Bonds, American Airlines Inc., Series 1995, 6.250%, 6/01/20	12/06 at 101

16,065 Total Oklahoma

Pennsylvania □ 4.8% (3.4% of Total Investments)

Allegheny County Hospital Development Authority, Pennsylvania, Revenue Bonds, West Penn Allegheny Health System, Series 2000B:

695	9.250%, 11/15/22	11/10 at 102
6,455	9.250%, 11/15/30	11/10 at 102
500	Allentown Area Hospital Authority, Pennsylvania, Revenue Bonds, Sacred Heart Hospital, Series	No Opt.

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2005, 6.000%, 11/15/16

2,000	Chester County Health and Education Facilities Authority, Pennsylvania, Revenue Bonds, Immaculata University, Series 2005, 5.750%, 10/15/37	10/15 at 100
190	Monroeville Hospital Authority, Pennsylvania, Revenue Bonds, Forbes Health System, Series 1992, 7.000%, 10/01/13	10/13 at 100
300	Monroeville Hospital Authority, Pennsylvania, Revenue Bonds, Forbes Health System, Series 1995, 6.250%, 10/01/15	10/06 at 101
500	New Morgan Industrial Development Authority, Pennsylvania, Solid Waste Disposal Revenue Bonds, New Morgan Landfill Company Inc., Series 1994, 6.500%, 4/01/19 (Alternative Minimum Tax)	10/06 at 100
400	Pennsylvania Economic Development Financing Authority, Exempt Facilities Revenue Bonds, Reliant Energy Inc., Series 2002A, 6.750%, 12/01/36 (Alternative Minimum Tax)	12/09 at 103
600	Pennsylvania Economic Development Financing Authority, Exempt Facilities Revenue Bonds, Reliant Energy Inc., Series 2003A, 6.750%, 12/01/36 (Alternative Minimum Tax)	12/09 at 103
4,000	Pennsylvania Economic Development Financing Authority, Revenue Bonds, Amtrak 30th Street Station Parking Garage, Series 2002, 5.800%, 6/01/23 ☐ ACA Insured (Alternative Minimum Tax)	6/12 at 102
230	Pennsylvania Higher Educational Facilities Authority, Revenue Bonds, Allegheny General Hospital, Series 1991A, 7.250%, 9/01/17	9/17 at 100

15,870 Total Pennsylvania

Rhode Island ☐ 1.3% (0.9% of Total Investments)

1,500	Central Falls Detention Facility Corporation, Rhode Island, Detention Facility Revenue Bonds, Series 2005, 7.250%, 7/15/35	7/15 at 103
3,000	Rhode Island Tobacco Settlement Financing Corporation, Tobacco Settlement Asset-Backed Bonds, Series 2002A, 6.250%, 6/01/42	6/12 at 100

4,500 Total Rhode Island

South Carolina ☐ 0.1% (0.1% of Total Investments)

490	Tobacco Settlement Revenue Management Authority, South Carolina, Tobacco Settlement Asset-Backed Bonds, Series 2001B, 6.375%, 5/15/30	No Opt.
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Tennessee ☐ 1.2% (0.8% of Total Investments)

3,500	Knox County Health, Educational and Housing Facilities Board, Tennessee, Hospital Revenue Bonds, Baptist Health System of East Tennessee Inc., Series 2002, 6.500%, 4/15/31	4/12 at 101
500	Maury County Industrial Development Board, Tennessee, Multi-Modal Interchangeable Rate Pollution Control Revenue Refunding Bonds, Saturn Corporation, Series 1994, 6.500%, 9/01/24	9/06 at 100

4,000 Total Tennessee

Texas ☐ 9.9% (7.1% of Total Investments)

1,200	Dallas-Ft. Worth International Airport Facility Improvement Corporation, Texas, Revenue Bonds, American Airlines Inc., Series 1992, 7.250%, 11/01/30 (Alternative Minimum Tax)	11/06 at 100
2,705	Dallas-Ft. Worth International Airport Facility Improvement Corporation, Texas, Revenue Bonds, American Airlines Inc., Series 1995, 6.000%, 11/01/14	11/07 at 100
565	Dallas-Ft. Worth International Airport Facility Improvement Corporation, Texas, Revenue Bonds, American Airlines Inc., Series 1999, 6.375%, 5/01/35 (Alternative Minimum Tax)	11/09 at 101
	Decatur Hospital Authority, Texas, Revenue Bonds, Wise Regional Health System, Series 2004A:	

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1,840	7.000%, 9/01/25	9/14 at 100
6,600	7.125%, 9/01/34	9/14 at 100
585	Gulf Coast Industrial Development Authority, Texas, Solid Waste Disposal Revenue Bonds, Citgo Petroleum Corporation Project, Series 1998, 8.000%, 4/01/28 (Alternative Minimum Tax)	4/12 at 100
3,000	Harris County Health Facilities Development Corporation, Texas, Hospital Revenue Bonds, Memorial Hermann Healthcare System, Series 2004A, 5.125%, 12/01/23	12/14 at 100
	Houston Health Facilities Development Corporation, Texas, Revenue Bonds, Buckingham Senior Living Community Inc., Series 2004A:	
250	7.000%, 2/15/23	2/14 at 101
1,400	7.125%, 2/15/34	2/14 at 101
2,020	Houston, Texas, Airport System Special Facilities Revenue Bonds, Continental Air Lines Inc., Series 1998B, 5.700%, 7/15/29 (Alternative Minimum Tax)	7/09 at 101
975	Houston, Texas, Airport System Special Facilities Revenue Bonds, Continental Air Lines Inc., Series 1998C, 5.700%, 7/15/29 (Alternative Minimum Tax)	7/09 at 101
	Houston, Texas, Airport System Special Facilities Revenue Bonds, Continental Air Lines Inc., Series 2001E:	
600	7.375%, 7/01/22 (Alternative Minimum Tax)	7/11 at 101
5,350	6.750%, 7/01/29 (Alternative Minimum Tax)	7/11 at 101
2,000	Sea Breeze Public Facility Corporation, Texas, Multifamily Housing Revenue Bonds, Sea Breeze Senior Apartments, Series 2006, 6.500%, 1/01/46 (Alternative Minimum Tax)	1/21 at 100
5,850	Texas Department of Housing and Community Affairs, Multifamily Housing Revenue Bonds, Humble Parkway Townhomes, Series 2004, 6.600%, 1/01/41 (Alternative Minimum Tax)	7/21 at 100

34,940 Total Texas

Virgin Islands □ 3.3% (2.4% of Total Investments)

3,000	Virgin Islands Public Finance Authority, Gross Receipts Taxes Loan Note, Series 2003, 5.000%, 10/01/26 □ RAAI Insured	10/14 at 100
5,000	Virgin Islands Public Finance Authority, Revenue Bonds, Refinery Project □ Hovensa LLC, Series 2003, 6.125%, 7/01/22 (Alternative Minimum Tax)	1/14 at 100
3,300	Virgin Islands Public Finance Authority, Senior Secured Lien Revenue Bonds, Refinery Project □ Hovensa LLC, Series 2004, 5.875%, 7/01/22	7/14 at 100

11,300 Total Virgin Islands

Virginia □ 4.4% (3.1% of Total Investments)

	Pocahontas Parkway Association, Virginia, Senior Lien Revenue Bonds, Route 895 Connector Toll Road, Series 1998A:	
2,000	0.000%, 8/15/14 (Pre-refunded 8/15/08)	8/08 at 73
4,250	5.500%, 8/15/28 (Pre-refunded 8/15/08)	8/08 at 102
1,850	0.000%, 8/15/30 (Pre-refunded 8/15/08)	8/08 at 28
	Pocahontas Parkway Association, Virginia, Senior Lien Revenue Bonds, Route 895 Connector Toll Road, Series 1998B:	
2,000	0.000%, 8/15/12 (Pre-refunded 8/15/08)	8/08 at 82
3,000	0.000%, 8/15/15 (Pre-refunded 8/15/08)	8/08 at 68
9,000	0.000%, 8/15/19 (Pre-refunded 8/15/08)	8/08 at 54
630	Rockbridge County Industrial Development Authority, Virginia, Horse Center Revenue Bonds, Series 2001A, 7.400%, 7/15/21	7/11 at 105

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980 Rockbridge County Industrial Development Authority, Virginia, Horse Center Revenue Refunding Bonds, Series 2001C, 6.850%, 7/15/21

7/11 at 100

23,710 Total Virginia

Washington 3.5% (2.5% of Total Investments)

3,000 Skagit County Public Hospital District 1, Washington, Revenue Bonds, Skagit Valley Hospital, Series 2003, 6.000%, 12/01/18
 Vancouver Downtown Redevelopment Authority, Washington, Revenue Bonds, Conference Center Project, Series 2003A:
 1,750 6.000%, 1/01/28 ACA Insured
 4,725 6.000%, 1/01/34 ACA Insured
 2,500 5.250%, 1/01/34 ACA Insured

12/13 at 100

1/14 at 100

1/14 at 100

1/14 at 100

11,975 Total Washington

Wisconsin 6.1% (4.3% of Total Investments)

550 Lac Courte Oreilles Band of Lake Superior Chippewa Indians, Wisconsin, Revenue Bonds, Series 2003A, 7.750%, 6/01/16
 Wisconsin Health and Educational Facilities Authority, Revenue Bonds, Aurora Health Care Inc., Series 1999A:
 9,485 5.600%, 2/15/29
 2,300 5.600%, 2/15/29 ACA Insured
 300 Wisconsin Health and Educational Facilities Authority, Revenue Bonds, Milwaukee Catholic Home Inc., Series 1996, 7.250%, 7/01/17
 500 Wisconsin Health and Educational Facilities Authority, Revenue Bonds, Oakwood Village Obligated Group, Series 2000A, 7.000%, 8/15/15
 Wisconsin Health and Educational Facilities Authority, Revenue Bonds, Southwest Health Center Inc., Series 2004A:
 875 6.125%, 4/01/24
 1,000 6.250%, 4/01/34
 6,280 Wisconsin Health and Educational Facilities Authority, Revenue Bonds, Wheaton Franciscan Services Inc., Series 2002, 5.750%, 8/15/30

12/14 at 101

2/09 at 101

2/09 at 101

7/08 at 100

8/15 at 100

4/14 at 100

4/14 at 100

2/12 at 101

21,290 Total Wisconsin

\$ 499,392 Total Investments (cost \$478,254,306) 140.9%

Other Assets Less Liabilities 1.7%

Preferred Shares, at Liquidation Value (42.6)%

Net Assets Applicable to Common Shares 100%

(1) All percentages shown in the Portfolio of Investments are based on net assets applicable to

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Common shares unless otherwise noted.

- (2) Optional Call Provisions: Dates (month and year) and prices of the earliest optional call or redemption. There may be other call provisions at varying prices at later dates. Certain mortgage-backed securities may be subject to periodic principal paydowns.
 - (3) Ratings: Using the higher of Standard & Poor's or Moody's rating. Ratings below BBB by Standard & Poor's Group or Baa by Moody's Investor Service, Inc. are considered to be below investment grade.
 - (4) Backed by an escrow or trust containing sufficient U.S. Government or U.S. Government agency securities which ensure the timely payment of principal and interest. Such investments are normally considered to be equivalent to AAA rated securities.
 - (5) Non-income producing security, in the case of a bond, generally denotes that the issuer has defaulted on the payment of principal or interest or has filed for bankruptcy.
- N/R Not rated.
- (ETM) Escrowed to maturity.

Income Tax Information

The following information is presented on an income tax basis. Differences between amounts for financial statement and federal income tax purposes are primarily due to the treatment of paydown gains and losses, timing differences in recognizing taxable market discount and timing differences in recognizing certain gains and losses on investment transactions.

At July 31, 2006, the cost of investments was \$477,188,011.

Gross unrealized appreciation and gross unrealized depreciation of investments at July 31, 2006, were as follows:

Gross unrealized:	
Appreciation	\$35,964,708
Depreciation	(780,783)

Net unrealized appreciation (depreciation) of investments	\$35,183,925
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Item 2. Controls and Procedures.

- 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") (17 CFR 270.30a-3(c))) are effective, as of a date within 90 days of the filing date of this report that includes the disclosure required by this paragraph, based on their evaluation of the controls and procedures required by Rule 30a-3(b) under the 1940 Act (17 CFR 270.30a-3(b)) and Rule 13a-15(b) or 15d-15(b) under the Securities Exchange Act of 1934 (17 CFR 240.13a-15(b) or 240.15d-15(b)).
- 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 (17 CFR 270.30a-3(d))) 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.

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File as exhibits as part of this Form a separate certification for each principal executive officer and principal financial officer of the registrant as required by Rule 30a-2(a) under the 1940 Act (17 CFR 270.30a-2(a)), exactly as set forth below: EX-99 CERT Attached hereto.

SIGNATURES

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.

(Registrant) Nuveen Municipal High Income Opportunity Fund

By (Signature and Title)* /s/ Jessica R. Droeger
Jessica R. Droeger
Vice President and Secretary

Date September 28, 2006

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 (Signature and Title)* /s/ Gifford R. Zimmerman
Gifford R. Zimmerman
Chief Administrative Officer (principal executive officer)

Date September 28, 2006

By (Signature and Title)* /s/ Stephen D. Foy
Stephen D. Foy
Vice President and Controller (principal financial officer)

Date September 28, 2006

* Print the name and title of each signing officer under his or her signature.