

PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST

Form NSAR-B

May 27, 2011

PAGE 1
000 B000000 03/31/2011
000 C000000 1258943
000 D000000 N
000 E000000 NF
000 F000000 Y
000 G000000 N
000 H000000 N
000 I000000 6.1
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001 B000000 811-21409
001 C000000 6177427825
002 A000000 60 STATE STREET
002 B000000 BOSTON
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008 A000001 PIONEER INVESTMENT MANAGEMENT, INC.
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010 A000002 STATE STREET BANK & TRUST COMPANY
010 C010002 BOSTON
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010 C030002 02101
011 A000001 PIONEER FUNDS DISTRIBUTOR, INC.
011 B000001 8-12345678
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PAGE 2
011 C030001 02109
011 C040001 1820
011 A000002 UBS INVESTMENT BANK
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011 C010002 STAMFORD
011 C020002 CT

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011 C030002 06901
 011 A000003 RBC CAPITAL MARKETS CORP.
 011 B000003 8-045411
 011 C010003 MINNEAPOLIS
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 011 C030003 55402
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 011 A000004 MERRILL LYNCH & CO.
 011 B000004 8-7221
 011 C010004 NEW YORK
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 011 C030004 10281
 011 C040004 1201
 011 A000005 JANNEY MONTGOMERY SCOTT, LLC
 011 B000005 8-462
 011 C010005 PHILADELPHIA
 011 C020005 PA
 011 C030005 19103
 011 C040005 1675
 011 A000006 WACHOVIA CAPITAL MARKETS, LLC
 011 B000006 8-99999
 011 C010006 RICHMOND
 011 C020006 VA
 011 C030006 23219
 012 A000001 PIONEER INVEST. MGMT. SHAREHOLDER SER. INC.
 012 B000001 85-01359
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 012 C030001 02109
 012 A000002 AMERICAN STOCK TRANSFER & TRUST CO. (COMMON)
 012 B000002 85-00000
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 012 C020002 NY
 012 C030002 11219
 012 A000003 DEUTSCHE BANK TRUST COMPANY AMERICAS (PREF.)
 012 B000003 85-00000
 012 C010003 NEW YORK CITY
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 013 A000001 ERNST & YOUNG, LLP
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 015 A000001 BROWN BROTHERS HARRIMAN & CO.
 PAGE 3
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022 A000003 JEFFERIES & COMPANY, INC.
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022 A000005 PIPER JAFFRAY & CO.
022 B000005 41-0953246
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087	C020000	723762308
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088	B000000	N
088	C000000	N
088	D000000	Y
SIGNATURE	MARK E. BRADLEY	
TITLE	TREASURER	