

PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST

Form NSAR-B

May 29, 2009

PAGE 1
000 B000000 03/31/2009
000 C000000 1258943
000 D000000 N
000 E000000 NF
000 F000000 Y
000 G000000 N
000 H000000 N
000 I000000 6.1
000 J000000 A
001 A000000 PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST
001 B000000 811-21409
001 C000000 6177427825
002 A000000 60 STATE STREET
002 B000000 BOSTON
002 C000000 MA
002 D010000 02109
003 000000 N
004 000000 N
005 000000 N
006 000000 N
007 A000000 N
007 B000000 0
007 C010100 1
007 C010200 2
007 C010300 3
007 C010400 4
007 C010500 5
007 C010600 6
007 C010700 7
007 C010800 8
007 C010900 9
007 C011000 10
008 A000001 PIONEER INVESTMENT MANAGEMENT, INC.
008 B000001 A
008 C000001 801-8255
008 D010001 BOSTON
008 D020001 MA
008 D030001 02109
010 A000001 PIONEER INVESTMENT MANAGEMENT, INC.
010 B000001 801-8255
010 C010001 BOSTON
010 C020001 MA
010 C030001 02109
010 A000002 PRINCETON ADMINISTRATORS, LLC
010 C010002 PRINCETON
010 C020002 NJ
010 C030002 08543
010 C040002 9095
011 A000001 PIONEER FUNDS DISTRIBUTOR, INC.
011 B000001 8-12345678
011 C010001 BOSTON
PAGE 2
011 C020001 MA
011 C030001 02109
011 C040001 1820
011 A000002 UBS INVESTMENT BANK
011 B000002 8-022651
011 C010002 STAMFORD

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-B

011 C020002 CT
011 C030002 06901
011 A000003 RBC CAPITAL MARKETS CORP.
011 B000003 8-045411
011 C010003 MINNEAPOLIS
011 C020003 MN
011 C030003 55402
011 C040003 4422
011 A000004 MERRILL LYNCH & CO.
011 B000004 8-7221
011 C010004 NEW YORK
011 C020004 NY
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
012 C010001 BOSTON
012 C020001 MA
012 C030001 02109
012 A000002 AMERICAN STOCK TRANSFER & TRUST CO.
012 B000002 85-00000
012 C010002 BROOKLYN
012 C020002 NY
012 C030002 11219
012 A000003 DEUTSCHE BANK TRUST COMPANY AMERICAS (PREF.)
012 B000003 85-00000
012 C010003 NEW YORK CITY
012 C020003 NY
012 C030003 10005
013 A000001 ERNST & YOUNG, LLP
013 B010001 BOSTON
013 B020001 MA
013 B030001 02116
013 B040001 5072
PAGE 3
015 A000001 BROWN BROTHERS HARRIMAN & CO.
015 B000001 C
015 C010001 BOSTON
015 C020001 MA
015 C030001 02109
015 E010001 X
018 000000 Y
019 A000000 Y
019 B000000 76
019 C000000 PIONEERFDS
020 C000001 0
020 C000002 0
020 C000003 0
020 C000004 0
020 C000005 0
020 C000006 0

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-B

| | | |
|-----|---------|----------------------------------|
| 020 | C000007 | 0 |
| 020 | C000008 | 0 |
| 020 | C000009 | 0 |
| 020 | C000010 | 0 |
| 021 | 000000 | 0 |
| 022 | A000001 | BLACKROCK INVESTMENTS, INC. |
| 022 | C000001 | 1279422 |
| 022 | D000001 | 0 |
| 022 | A000002 | CITIGROUP GLOBAL MARKETS, INC. |
| 022 | B000002 | 11-2418191 |
| 022 | C000002 | 17776 |
| 022 | D000002 | 9730 |
| 022 | A000003 | LEHMAN BROTHERS, INC. |
| 022 | C000003 | 21346 |
| 022 | D000003 | 0 |
| 022 | A000004 | FIRST TYRON SECURITIES, LLC |
| 022 | B000004 | 56-1986792 |
| 022 | C000004 | 0 |
| 022 | D000004 | 17745 |
| 022 | A000005 | BARCLAYS CAPITAL INC. |
| 022 | C000005 | 9180 |
| 022 | D000005 | 7016 |
| 022 | A000006 | PIPER JAFFRAY & CO. |
| 022 | B000006 | 41-0953246 |
| 022 | C000006 | 0 |
| 022 | D000006 | 16027 |
| 022 | A000007 | B.C. ZIEGLER AND CO. |
| 022 | B000007 | 39-0727640 |
| 022 | C000007 | 8500 |
| 022 | D000007 | 2909 |
| 022 | A000008 | RAYMOND JAMES & ASSOCIATES, INC. |
| 022 | B000008 | 59-1237041 |
| 022 | C000008 | 2713 |
| 022 | D000008 | 6197 |
| 022 | A000009 | BB&T INVESTMENTS SERVICES, INC. |
| | PAGE | 4 |
| 022 | C000009 | 3262 |
| 022 | D000009 | 0 |
| 022 | A000010 | GUGGENHEIM CAPITAL MARKETS, LLC |
| 022 | C000010 | 0 |
| 022 | D000010 | 3044 |
| 023 | C000000 | 1350006 |
| 023 | D000000 | 63719 |
| 024 | 000000 | N |
| 026 | A000000 | N |
| 026 | B000000 | Y |
| 026 | C000000 | N |
| 026 | D000000 | Y |
| 026 | E000000 | N |
| 026 | F000000 | N |
| 026 | G010000 | N |
| 026 | G020000 | N |
| 026 | H000000 | N |
| 027 | 000000 | N |
| 045 | 000000 | Y |
| 046 | 000000 | N |
| 047 | 000000 | Y |
| 048 | 000000 | 0.600 |
| 048 | A010000 | 0 |
| 048 | A020000 | 0.000 |
| 048 | B010000 | 0 |
| 048 | B020000 | 0.000 |

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-B

| | | |
|-----|---------|-------|
| 048 | C010000 | 0 |
| 048 | C020000 | 0.000 |
| 048 | D010000 | 0 |
| 048 | D020000 | 0.000 |
| 048 | E010000 | 0 |
| 048 | E020000 | 0.000 |
| 048 | F010000 | 0 |
| 048 | F020000 | 0.000 |
| 048 | G010000 | 0 |
| 048 | G020000 | 0.000 |
| 048 | H010000 | 0 |
| 048 | H020000 | 0.000 |
| 048 | I010000 | 0 |
| 048 | I020000 | 0.000 |
| 048 | J010000 | 0 |
| 048 | J020000 | 0.000 |
| 048 | K010000 | 0 |
| 048 | K020000 | 0.000 |
| 049 | 000000 | N |
| 050 | 000000 | N |
| 051 | 000000 | N |
| 052 | 000000 | N |
| 053 | A000000 | N |
| 054 | A000000 | Y |
| 054 | B000000 | Y |
| | PAGE | 5 |
| 054 | C000000 | Y |
| 054 | D000000 | N |
| 054 | E000000 | N |
| 054 | F000000 | N |
| 054 | G000000 | N |
| 054 | H000000 | Y |
| 054 | I000000 | N |
| 054 | J000000 | Y |
| 054 | K000000 | N |
| 054 | L000000 | N |
| 054 | M000000 | Y |
| 054 | N000000 | N |
| 054 | O000000 | N |
| 055 | A000000 | Y |
| 055 | B000000 | N |
| 056 | 000000 | Y |
| 057 | 000000 | N |
| 058 | A000000 | N |
| 059 | 000000 | Y |
| 060 | A000000 | Y |
| 060 | B000000 | Y |
| 061 | 000000 | 0 |
| 062 | A000000 | Y |
| 062 | B000000 | 0.0 |
| 062 | C000000 | 0.0 |
| 062 | D000000 | 0.0 |
| 062 | E000000 | 0.0 |
| 062 | F000000 | 0.0 |
| 062 | G000000 | 0.0 |
| 062 | H000000 | 0.0 |
| 062 | I000000 | 0.0 |
| 062 | J000000 | 0.0 |
| 062 | K000000 | 0.0 |
| 062 | L000000 | 0.0 |
| 062 | M000000 | 0.0 |
| 062 | N000000 | 0.0 |

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-B

062 O000000 163.3
 062 P000000 0.0
 062 Q000000 0.0
 062 R000000 3.1
 063 A000000 0
 063 B000000 19.3
 064 A000000 Y
 064 B000000 Y
 065 000000 N
 066 A000000 N
 067 000000 N
 068 A000000 N
 068 B000000 N
 069 000000 N
 070 A010000 Y
 PAGE 6
 070 A020000 N
 070 B010000 N
 070 B020000 N
 070 C010000 Y
 070 C020000 N
 070 D010000 N
 070 D020000 N
 070 E010000 Y
 070 E020000 N
 070 F010000 N
 070 F020000 N
 070 G010000 Y
 070 G020000 N
 070 H010000 N
 070 H020000 N
 070 I010000 N
 070 I020000 N
 070 J010000 Y
 070 J020000 Y
 070 K010000 Y
 070 K020000 Y
 070 L010000 N
 070 L020000 N
 070 M010000 N
 070 M020000 N
 070 N010000 N
 070 N020000 N
 070 O010000 Y
 070 O020000 N
 070 P010000 Y
 070 P020000 Y
 070 Q010000 N
 070 Q020000 N
 070 R010000 N
 070 R020000 N
 071 A000000 93596
 071 B000000 100369
 071 C000000 394206
 071 D000000 24
 072 A000000 12
 072 B000000 31324
 072 C000000 0
 072 D000000 0
 072 E000000 0
 072 F000000 2457
 072 G000000 395

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-B

| | |
|-------------|-----|
| 072 H000000 | 0 |
| 072 I000000 | 431 |
| 072 J000000 | 29 |
| 072 K000000 | 0 |
| 072 L000000 | 38 |

PAGE 7

| | |
|-------------|--------|
| 072 M000000 | 16 |
| 072 N000000 | 24 |
| 072 O000000 | 0 |
| 072 P000000 | 0 |
| 072 Q000000 | 0 |
| 072 R000000 | 70 |
| 072 S000000 | 55 |
| 072 T000000 | 0 |
| 072 U000000 | 0 |
| 072 V000000 | 0 |
| 072 W000000 | 53 |
| 072 X000000 | 3568 |
| 072 Y000000 | 0 |
| 072 Z000000 | 27756 |
| 072AA000000 | 0 |
| 072BB000000 | 30870 |
| 072CC010000 | 0 |
| 072CC020000 | 70217 |
| 072DD010000 | 20553 |
| 072DD020000 | 0 |
| 072EE000000 | 0 |
| 073 A010000 | 0.9000 |
| 073 A020000 | 0.0000 |
| 073 B000000 | 0.0000 |
| 073 C000000 | 0.0000 |
| 074 A000000 | 2463 |
| 074 B000000 | 0 |
| 074 C000000 | 0 |
| 074 D000000 | 344826 |
| 074 E000000 | 0 |
| 074 F000000 | 616 |
| 074 G000000 | 0 |
| 074 H000000 | 0 |
| 074 I000000 | 6000 |
| 074 J000000 | 2735 |
| 074 K000000 | 0 |
| 074 L000000 | 9244 |
| 074 M000000 | 43 |
| 074 N000000 | 365927 |
| 074 O000000 | 4312 |
| 074 P000000 | 197 |
| 074 Q000000 | 0 |
| 074 R010000 | 0 |
| 074 R020000 | 0 |
| 074 R030000 | 0 |
| 074 R040000 | 266 |
| 074 S000000 | 150005 |
| 074 T000000 | 211147 |
| 074 U010000 | 22879 |
| 074 U020000 | 0 |
| 074 V010000 | 9.23 |

PAGE 8

| | |
|-------------|--------|
| 074 V020000 | 0.00 |
| 074 W000000 | 0.0000 |
| 074 X000000 | 8647 |
| 074 Y000000 | 0 |

Edgar Filing: PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST - Form NSAR-B

075 A000000 0
075 B000000 259430
076 000000 9.04
077 A000000 Y
077 B000000 Y
077 C000000 N
077 D000000 N
077 E000000 N
077 F000000 N
077 G000000 N
077 H000000 N
077 I000000 N
077 J000000 N
077 K000000 N
077 L000000 N
077 M000000 N
077 N000000 N
077 O000000 N
077 P000000 N
077 Q010000 N
077 Q020000 N
077 Q030000 N
078 000000 N
080 A000000 ICI MUTUAL INSURANCE CO.
080 C000000 45000
081 A000000 Y
081 B000000 76
082 A000000 N
082 B000000 0
083 A000000 N
083 B000000 0
084 A000000 N
084 B000000 0
085 A000000 Y
085 B000000 N
086 A010000 93
086 A020000 1104
086 B010000 0
086 B020000 0
086 C010000 0
086 C020000 0
086 D010000 0
086 D020000 0
086 E010000 0
086 E020000 0
086 F010000 0
086 F020000 0

PAGE 9

087 A010000 COMMON STOCK
087 A020000 723762100
087 A030000 MAV
087 B010000 PREFERRED STOCK - SERIES A
087 B020000 723762209
087 C010000 PREFERRED STOCK - SERIES B
087 C020000 723762308
088 A000000 N
088 B000000 N
088 C000000 N
088 D000000 Y
SIGNATURE MARY KELLERMANN
TITLE ACCOUNTING MANAGER