

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
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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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002 D010000 02109
003 000000 N
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008 A000001 PIONEER INVESTMENT MANAGEMENT, INC.
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010 A000002 PRINCETON ADMINISTRATORS, LLC
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011 A000001 PIONEER FUNDS DISTRIBUTOR, INC.
011 B000001 8-12345678
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PAGE 2
011 C020001 MA
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011 A000002 UBS INVESTMENT BANK
011 B000002 8-022651
011 C010002 STAMFORD

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011 C020002 CT
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011 A000003 RBC CAPITAL MARKETS CORP.
011 B000003 8-045411
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011 C030003 55402
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011 A000004 MERRILL LYNCH & CO.
011 B000004 8-7221
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011 A000005 JANNEY MONTGOMERY SCOTT, LLC
011 B000005 8-462
011 C010005 PHILADELPHIA
011 C020005 PA
011 C030005 19103
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011 A000006 WACHOVIA CAPITAL MARKETS, LLC
011 B000006 8-99999
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011 C020006 VA
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012 A000001 PIONEER INVEST. MGMT. SHAREHOLDER SER. INC.
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012 A000002 AMERICAN STOCK TRANSFER & TRUST CO.
012 B000002 85-00000
012 C010002 BROOKLYN
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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
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PAGE 3
015 A000001 BROWN BROTHERS HARRIMAN & CO.
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020 C000007 0
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 022 A000003 LEHMAN BROTHERS, INC.
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 022 A000005 BARCLAYS CAPITAL INC.
 022 C000005 9180
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 022 A000006 PIPER JAFFRAY & CO.
 022 B000006 41-0953246
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 022 A000007 B.C. ZIEGLER AND CO.
 022 B000007 39-0727640
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 022 A000008 RAYMOND JAMES & ASSOCIATES, INC.
 022 B000008 59-1237041
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 PAGE 4
 022 C000009 3262
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 022 A000010 GUGGENHEIM CAPITAL MARKETS, LLC
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PAGE 7

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PAGE 8

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PAGE 9

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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