

PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST
Form NSAR-B
May 30, 2012

PAGE 1
000 B000000 03/31/2012
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 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
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008 A000001 PIONEER INVESTMENT MANAGEMENT, INC.
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008 D020001 MA
008 D030001 02109
010 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 8-41256
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011 C040001 1820
011 A000002 UBS INVESTMENT BANK
011 B000002 8-022651
011 C010002 STAMFORD
011 C020002 CT
011 C030002 06901
011 A000003 RBC CAPITAL MARKETS CORP.
011 B000003 8-045411
PAGE 2
011 C010003 MINNEAPOLIS
011 C020003 MN
011 C030003 55402
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011 A000004 MERRILL LYNCH & CO.
011 B000004 8-7221

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011 C010004 NEW YORK
011 C020004 NY
011 C030004 10281
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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. (COMMON)
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
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015 A000001 BROWN BROTHERS HARRIMAN & CO.
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PAGE 3
021 000000 0
022 A000001 JP MORGAN SECURITIES, INC.
022 B000001 13-3379014
022 C000001 25734
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022 A000002 BLACKROCK INVESTMENTS, INC.
022 C000002 15000
022 D000002 9000
022 A000003 FIRST MIAMI SECURITIES
022 B000003 59-1842344
022 C000003 3489
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022 A000004 FIRST TRYON SECURITIES LLC
022 B000004 56-1986792
022 C000004 8409
022 D000004 1076

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022 A000005 RAYMOND JAMES & ASSOCIATES, INC.
022 B000005 59-1237041
022 C000005 1500
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022 A000006 B.C. ZIEGLER AND COMPANY
022 B000006 39-0727640
022 C000006 5920
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022 A000007 PIPER JAFFRAY & CO.
022 B000007 41-0953246
022 C000007 2430
022 D000007 868
022 A000008 BB&T INVESTMENT SERVICES, INC.
022 B000008 80-0078024
022 C000008 2415
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022 A000009 JEFFERIES & COMPANY, INC.
022 B000009 95-2622900
022 C000009 1501
022 D000009 860
022 A000010 STIFEL, NICOLAUS & COMPANY, INC.
022 B000010 43-0538770
022 C000010 280
022 D000010 1733
023 C000000 76416
023 D000000 36207
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054 F000000 N
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PAGE 6

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084 A000000 N
084 B000000 0
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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 MARK E. BRADLEY
TITLE TREASURER