

PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST

Form NSAR-A

November 28, 2014

PAGE 1
000 A000000 09/30/2014
000 C000000 0001258943
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 BROWN BROTHERS HARRIMAN & CO.
010 C010002 BOSTON
010 C020002 MA
010 C030002 02110
011 A000001 PIONEER FUNDS DISTRIBUTOR, INC.
011 B000001 8-41256
011 C010001 BOSTON
011 C020001 MA
PAGE 2
011 C030001 02109
011 C040001 1820
011 A000002 UBS INVESTMENT BANK
011 B000002 8-022651
011 C010002 STAMFORD
011 C020002 CT

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

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 SERV. 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 85-05212
012 C010003 NEW YORK
012 C020003 NY
012 C030003 10005
013 A000001 DELOITTE & TOUCHE LLP
013 B010001 BOSTON
013 B020001 MA
013 B030001 02116
015 A000001 BROWN BROTHERS HARRIMAN & CO.
015 B000001 C
PAGE 3
015 C010001 BOSTON
015 C020001 MA
015 C030001 02110
015 E010001 X
015 A000002 CITIBANK, N.A. BUENOS AIRES BRANCH
015 B000002 S
015 C010002 BUENOS AIRES
015 D010002 ARGENTINA
015 E040002 X
015 A000003 HSBC BANK AUSTRALIA LIMITED
015 B000003 S
015 C010003 SYDNEY
015 D010003 AUSTRALIA
015 E040003 X
015 A000004 UNICREDIT BANK AUSTRIA AG
015 B000004 S

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

015 C010004 VIENNA
015 D010004 AUSTRIA
015 E040004 X
015 A000005 STANDARD CHARTERED BANK, BANGLADESH BRANCH
015 B000005 S
015 C010005 DHAKA
015 D010005 BANGLADESH
015 E040005 X
015 A000006 EUROCLEAR BANK SA NV
015 B000006 S
015 C010006 BRUSSELS
015 D010006 BELGIUM
015 E040006 X
015 A000007 BNP PARIBAS SECURITIES SERVICES
015 B000007 S
015 C010007 PANTIN
015 D010007 BELGIUM
015 E040007 X
015 A000008 CITIBANK, N.A., SAO PAULO
015 B000008 S
015 C010008 SAO PAULO
015 D010008 BRAZIL
015 E040008 X
015 A000009 CITIBNK EUROPE PLC, BULGARIA BRANCH
015 B000009 S
015 C010009 SOFIA
015 D010009 BULGARIA
015 E040009 X
015 A000010 RBC INVESTOR SERVICES TRUST
015 B000010 S
015 C010010 TORONTO
015 D010010 CANADA
015 E040010 X
015 A000011 BANCO DE CHILE
015 B000011 S
015 PAGE 4
015 C010011 SANTIAGO
015 D010011 CHILE
015 E040011 X
015 A000012 STANDARD CHARTERED BANK (CHINA) LIMITED
015 B000012 S
015 C010012 SHANGHAI
015 D010012 CHINA
015 E040012 X
015 A000013 CITITRUST COLOMBIA S.A., SOCIEDAD FIDUCIARA
015 B000013 S
015 C010013 BOGOTA
015 D010013 COLOMBIA
015 E040013 X
015 A000014 CITIBANK EUROPE PLC, ORGANIZACNI SLOZKA
015 B000014 S
015 C010014 PRAGUE
015 D010014 CZECH REPUBLIC
015 E040014 X
015 A000015 SKANDINAVISKA ENSKILDA BANKEN AB (PUBL)
015 B000015 S
015 C010015 COPENHAGEN
015 D010015 DENMARK
015 E040015 X
015 A000016 CITIBANK, N.A., CAIRO BRANCH
015 B000016 S
015 C010016 CAIRO

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

015 D010016 EGYPT
015 E040016 X
015 A000017 NORDEA BANK FINLAND PLC
015 B000017 S
015 C010017 HELSINKI
015 D010017 FINLAND
015 E040017 X
015 A000018 BNP PARIBAS SECURITIES SERVICES
015 B000018 S
015 C010018 PANTIN
015 D010018 FRANCE
015 E040018 X
015 A000019 BNP PARIBAS SECURITIES SERVICES,FRANKFURT B
015 B000019 S
015 C010019 FRANKFURT
015 D010019 GERMANY
015 E040019 X
015 A000020 STANDARD CHARTERED BANK GHANA LTD.
015 B000020 S
015 C010020 ACCRA
015 D010020 GHANA
015 E040020 X
015 A000021 HSBC BANK PLC, ATHENS BRANCH
015 B000021 S
015 C010021 ATHENS
015 PAGE 5
015 D010021 GREECE
015 E040021 X
015 A000022 STANDARD CHARTERED BANK (HONG KONG) LIMITED
015 B000022 S
015 C010022 KWUN TONG
015 D010022 HONG KONG
015 E040022 X
015 A000023 CITIBANK EUROPE PLC, HUNGARIAN BRANCH OFFICE
015 B000023 S
015 C010023 BUDAPEST
015 D010023 HUNGARY
015 E040023 X
015 A000024 CITIBANK, N.A., MUMBAI BRANCH
015 B000024 S
015 C010024 MUMBAI
015 D010024 INDIA
015 E040024 X
015 A000025 CITIBANK, N.A., JAKARTA BRANCH
015 B000025 S
015 C010025 JAKARTA
015 D010025 INDONESIA
015 E040025 X
015 A000026 CITIBANK, N.A., LONDON BRANCH
015 B000026 S
015 C010026 LONDON
015 D010026 IRELAND
015 E040026 X
015 A000027 BANK HAPOLIM BM
015 B000027 S
015 C010027 TEL AVIV
015 D010027 ISRAEL
015 E040027 X
015 A000028 BNP PARIBAS SECURITIES SERVICES, MILAN BRANCH
015 B000028 S
015 C010028 MILAN
015 D010028 ITALY

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

015 E040028 X
015 A000029 SUMITOMO MITSU BANKING CORPORATION
015 B000029 S
015 C010029 TOKYO
015 D010029 JAPAN
015 E040029 X
015 A000030 HSBC BANK MIDDLE EAST LIMITED, JORDAN BRANCH
015 B000030 S
015 C010030 AMMAN
015 D010030 JORDAN
015 E040030 X
015 A000031 CFC STANBIC BANK LIMITED
015 B000031 S
015 C010031 NAIROBI
015 D010031 KENYA
PAGE 6
015 E040031 X
015 A000032 HSBC BANK MIDDLE EAST LIMITED, KUWAIT BRANCH
015 B000032 S
015 C010032 SAFAT
015 D010032 KUWAIT
015 E040032 X
015 A000033 KBL EUROPEAN PRIVATE BANKERS SA
015 B000033 S
015 C010033 LUXEMBOURG
015 D010033 LUXEMBOURG
015 E040033 X
015 A000034 HSBC BANK MALAYSIA BERHAD
015 B000034 S
015 C010034 KUALA LUMPUR
015 D010034 MALAYSIA
015 E040034 X
015 A000035 BANCO NACIONAL DE MEXICO, S.A. (BANAMEX)
015 B000035 S
015 C010035 MEXICO CITY
015 D010035 MEXICO
015 E040035 X
015 A000036 CITIBANK MAGHREB
015 B000036 S
015 C010036 CASABLANCA
015 D010036 MOROCCO
015 E040036 X
015 A000037 BNP PARIBAS SECURITIES SERVICES
015 B000037 S
015 C010037 PANTIN
015 D010037 NETHERLANDS
015 E040037 X
015 A000038 HSBC LIMITED, NEW ZEALAND BRANCH
015 B000038 S
015 C010038 AUCKLAND
015 D010038 NEW ZEALAND
015 E040038 X
015 A000039 STANBIC IBTC BANK PLC
015 B000039 S
015 C010039 LAGOS
015 D010039 NIGERIA
015 E040039 X
015 A000040 NORDEA BANK NORGE ASA
015 B000040 S
015 C010040 OSLO
015 D010040 NORWAY
015 E040040 X

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

015 A000041 CITIBANK DEL PERU S.A.
015 B000041 S
015 C010041 LIMA
015 D010041 PERU
015 E040041 X
PAGE 7
015 A000042 HSBC LIMITED, PHILIPPINE BRANCH
015 B000042 S
015 C010042 TAGUIG CITY
015 D010042 PHILIPPINES
015 E040042 X
015 A000043 BANK HANDLOWY W WARSZAWIE SA
015 B000043 S
015 C010043 WARSAW
015 D010043 POLAND
015 E040043 X
015 A000044 BNP PARIBAS SECURITIES SERVICES
015 B000044 S
015 C010044 PANTIN
015 D010044 PORTUGAL
015 E040044 X
015 A000045 HSBC BANK MIDDLE EAST LIMITED, QATAR BRANCH
015 B000045 S
015 C010045 ST. HELIER
015 D010045 QATAR
015 E040045 X
015 A000046 CITIBANK EUROPE PLC, DUBLIN-SUCURSALA ROMANIA
015 B000046 S
015 C010046 BUCHAREST
015 D010046 ROMANIA
015 E040046 X
015 A000047 ZAO CITIBANK
015 B000047 S
015 C010047 MOSCOW
015 D010047 RUSSIA
015 E040047 X
015 A000048 HSBC SAUDI ARABIA LIMITED
015 B000048 S
015 C010048 RIYADH
015 D010048 SAUDI ARABIA
015 E040048 X
015 A000049 STANDARD CHARTERED BANK SINGAPORE BRANCH
015 B000049 S
015 C010049 SINGAPORE
015 D010049 SINGAPORE
015 E040049 X
015 A000050 ING BANK NV, BRATISLAVA BRANCH
015 B000050 S
015 C010050 BRATISLAVA
015 D010050 SLOVAKIA
015 E040050 X
015 A000051 STANDARD BANK OF SOUTH AFRICA LIMITED
015 B000051 S
015 C010051 JOHANNESBURG
015 D010051 SOUTH AFRICA
015 E040051 X
015 A000052 CITIBANK KOREA INC.
PAGE 8
015 B000052 S
015 C010052 SEOUL
015 D010052 SOUTH KOREA
015 E040052 X

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

015 A000053 BANCO BILBAO VIZCAYA AREGENTARIA SA
015 B000053 S
015 C010053 MADRID
015 D010053 SPAIN
015 E040053 X
015 A000054 HSBC, SRI LANKA BRANCH
015 B000054 S
015 C010054 COLOMBO
015 D010054 SRI LANKA
015 E040054 X
015 A000055 SKANDINAVISKA ENSKILDA BANKEN AB (PUBL)
015 B000055 S
015 C010055 STOCKHOLM
015 D010055 SWEDEN
015 E040055 X
015 A000056 CREDIT SUISSE AG
015 B000056 S
015 C010056 ZURICH
015 D010056 SWITZERLAND
015 E040056 X
015 A000057 BANK OF TAIWAN
015 B000057 S
015 C010057 TAIPEI
015 D010057 TAIWAN
015 E040057 X
015 A000058 HSBC LIMITED, THAILAND BRANCH
015 B000058 S
015 C010058 BANGKOK
015 D010058 THAILAND
015 E040058 X
015 A000059 CITIBANK ANONIM SIRKETI
015 B000059 S
015 C010059 ISTANBUL
015 D010059 TURKEY
015 E040059 X
015 A000060 HSBC BANK MIDDLE EAST LIMITED
015 B000060 S
015 C010060 DUBAI
015 D010060 UNITED ARAB EMIRATES
015 E040060 X
015 A000061 HSBC BANK PLC
015 B000061 S
015 C010061 LONDON
015 D010061 UNITED KINGDOM
015 E040061 X
015 A000062 CITIBANK, N.A., CARACAS BRANCH
015 B000062 S
PAGE 9
015 C010062 CARACAS
015 D010062 VENEZUELA
015 E040062 X
015 A000063 HSBC BANK (VIETNAM) LTD
015 B000063 S
015 C010063 HO CHI MINH CITY
015 D010063 VIETNAM
015 E040063 X
015 A000064 UNICREDIT BANK AUSTRIA AG
015 B000064 S
015 C010064 VIENNA
015 D010064 CROATIA
015 E040064 X
018 000000 Y

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

```

019 A000000 Y
019 B000000 53
019 C000000 PIONEERFDS
020 C000001 0
020 C000002 0
020 C000003 0
020 C000004 0
020 C000005 0
020 C000006 0
020 C000007 0
020 C000008 0
020 C000009 0
020 C000010 0
021 000000 0
022 A000001 BNY MELLON CAPITAL MARKETS, LLC
022 B000001 23-2384977
022 C000001 18892
022 D000001 16824
022 A000002 J.P. MORGAN SECURITIES INC
022 B000002 13-3379014
022 C000002 30804
022 D000002 3461
022 A000003 BROWN BROTHERS HARRIMAN & CO.
022 B000003 13-4973745
022 C000003 23530
022 D000003 7357
022 A000004 BLACKROCK ADVISORS LLC
022 B000004 13-3806691
022 C000004 0
022 D000004 14000
022 A000005 FIRST SOUTHWEST COMPANY
022 B000005 75-0708002
022 C000005 8527
022 D000005 0
022 A000006 CLEARVIEW TRADING ADVISORS, INC.
022 B000006 14-1981175
022 C000006 987
    PAGE 10
022 D000006 1831
022 A000007 CITIGROUP CAPITAL MARKETS, INC.
022 B000007 11-2418191
022 C000007 0
022 D000007 1157
022 A000008 RAYMOND JAMES (USA) LTD.
022 B000008 22-3030928
022 C000008 0
022 D000008 993
022 A000009 MORGAN STANLEY LLC
022 B000009 13-2655998
022 C000009 0
022 D000009 86
022 C000010 0
022 D000010 0
023 C000000 82740
023 D000000 45707
024 000000 N
025 D000001 0
025 D000002 0
025 D000003 0
025 D000004 0
025 D000005 0
025 D000006 0

```

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

025	D000007	0
025	D000008	0
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
028	A010000	0
028	A020000	0
028	A030000	0
028	A040000	0
028	B010000	0
028	B020000	0
028	B030000	0
028	B040000	0
028	C010000	0
028	C020000	0
028	C030000	0
028	C040000	0
028	D010000	0
028	D020000	0
028	D030000	0
	PAGE 11	
028	D040000	0
028	E010000	0
028	E020000	0
028	E030000	0
028	E040000	0
028	F010000	0
028	F020000	0
028	F030000	0
028	F040000	0
028	G010000	0
028	G020000	0
028	G030000	0
028	G040000	0
028	H000000	0
030	A000000	0
030	B000000	0.00
030	C000000	0.00
031	A000000	0
031	B000000	0
032	000000	0
033	000000	0
035	000000	0
036	B000000	0
038	000000	0
042	A000000	0
042	B000000	0
042	C000000	0
042	D000000	0
042	E000000	0
042	F000000	0
042	G000000	0
042	H000000	0
043	000000	0
044	000000	0

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

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	
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
	PAGE	12	
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	
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	N	
055	B000000	N	
056	000000	N	
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	

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

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

PAGE 13

062 N000000 0.0
 062 O000000 144.8
 062 P000000 0.0
 062 Q000000 2.5
 062 R000000 0.0
 063 A000000 0
 063 B000000 7.7

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

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 N

070 Q010000 N

070 Q020000 N

070 R010000 N

070 R020000 N

PAGE 14

071 A000000 79385

071 B000000 73489

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

071	C000000	427363
071	D000000	17
072	A000000	6
072	B000000	13691
072	C000000	0
072	D000000	0
072	E000000	0
072	F000000	1329
072	G000000	117
072	H000000	0
072	I000000	13
072	J000000	3
072	K000000	0
072	L000000	9
072	M000000	7
072	N000000	0
072	O000000	0
072	P000000	0
072	Q000000	0
072	R000000	26
072	S000000	37
072	T000000	0
072	U000000	0
072	V000000	0
072	W000000	229
072	X000000	1770
072	Y000000	0
072	Z000000	11921
072AA	000000	2498
072BB	000000	0
072CC0	10000	10687
072CC0	20000	0
072DD0	10000	13436
072DD0	20000	0
072EE	000000	0
073	A010000	0.5700
073	A020000	0.0000
073	B000000	0.0000
073	C000000	0.0000
074	A000000	0
074	B000000	0
074	C000000	0
074	D000000	437161
074	E000000	0
074	F000000	0
074	G000000	0
074	H000000	0
074	I000000	0
074	J000000	3819
PAGE 15		
074	K000000	0
074	L000000	7234
074	M000000	167
074	N000000	448381
074	O000000	0
074	P000000	226
074	Q000000	0
074	R010000	0
074	R020000	0
074	R030000	0
074	R040000	1393
074	S000000	150000

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

074	T000000	296762
074	U010000	23612
074	U020000	0
074	V010000	12.57
074	V020000	0.00
074	W000000	0.0000
074	X000000	5349
074	Y000000	0
075	A000000	0
075	B000000	291848
076	000000	15.15
077	A000000	Y
077	B000000	N
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	Y
077	L000000	N
077	M000000	N
077	N000000	N
077	O000000	N
077	P000000	N
077	Q010000	Y
077	Q020000	N
077	Q030000	N
078	000000	N
080	C000000	0
081	B000000	0
082	A000000	Y
082	B000000	0
083	A000000	N
083	B000000	0
084	A000000	N
084	B000000	0
PAGE 16		
085	A000000	N
085	B000000	N
086	A010000	68
086	A020000	986
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
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

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

088 B000000 N

088 C000000 N

088 D000000 Y

SIGNATURE MARK E. BRADLEY

TITLE TREASURER