

PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST
 Form 3
 June 07, 2010

FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,
 Section 17(a) of the Public Utility Holding Company Act of 1935 or Section
 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *

Â HANNIGAN CAROL B

(Last) (First) (Middle)

60 STATE STREET

(Street)

BOSTON,Â MAÂ 02109

(City) (State) (Zip)

2. Date of Event Requiring Statement

(Month/Day/Year)
 06/03/2010

3. Issuer Name and Ticker or Trading Symbol
 PIONEER MUNICIPAL HIGH INCOME
 ADVANTAGE TRUST [MAV]

4. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

Director 10% Owner
 Officer Other
 (give title below) (specify below)
 Assistant Secretary

5. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)

2. Amount of Securities Beneficially Owned (Instr. 4)

3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)

4. Nature of Indirect Beneficial Ownership (Instr. 5)

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

SEC 1473 (7-02)

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)

2. Date Exercisable and Expiration Date (Month/Day/Year)

3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)

4. Conversion or Exercise Price of Derivative Security

5. Ownership Form of Derivative Security: Direct (D) or Indirect (I)

6. Nature of Indirect Beneficial Ownership (Instr. 5)

Date Exercisable Expiration Date Title Amount or Number of Shares

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|---|---------------|-----------|-----------------------|-------|
| | Director | 10% Owner | Officer | Other |
| HANNIGAN CAROL B 60 STATE STREET BOSTON, MA 02109 | Â | Â | Â Assistant Secretary | Â |

Signatures

Carol B.
Hannigan

06/07/2010

__Signature of
Reporting Person

Date

Explanation of Responses:

No securities are beneficially owned

* If the form is filed by more than one reporting person, *see* Instruction 5(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *See* Instruction 6 for procedure.

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