

PIONEER MUNICIPAL HIGH INCOME ADVANTAGE TRUST  
Form N-PX  
August 19, 2011

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

FORM N-PX  
ANNUAL REPORT OF PROXY VOTING RECORD OF REGISTERED  
MANAGEMENT INVESTMENT COMPANIES

Investment Company Act file number 811-21409  
-----

Pioneer Municipal High Income Advantage Trust  
-----

(Exact name of registrant as specified in charter)

60 State Street Boston, MA 02109  
-----

(Address of principal executive offices)

Terrence J. Cullen  
60 State Street  
Boston, MA 02109  
-----

(Name and address of agent for service)

Registrant's telephone number, including area code: (617) 742-7825

Date of fiscal year end: March 31

Date of reporting period: July 1, 2010 to June 30, 2011

SIGNATURES

Pursuant to the requirements of the Investment Company Act of 1940, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

(Registrant) Pioneer Municipal High Income Advantage Trust

By (Signature and Title) /s/ John F. Cogan, Jr.  
-----

John F. Cogan, Jr., Chairman and President

Date August 19, 2011  
-----

===== PIONEER MUNI HIGH INCOME ADVANTAGE TRUST =====

CONNECTOR 2000 ASSN INC S C TOLL RD REV

Ticker: Security ID: 20786LAB7  
 Meeting Date: MAR 04, 2011 Meeting Type: Written Consent  
 Record Date: JAN 05, 2011

#	Proposal	Mgt Rec	Vote Cast	Sponsor
1	To Accept The Plan, As Further Described In The Consentsolicitation Package	For	For	Management

-----  
 DELTA AIR LINES, INC.

Ticker: DAL Security ID: 247361702  
 Meeting Date: JUN 30, 2011 Meeting Type: Annual  
 Record Date: MAY 02, 2011

#	Proposal	Mgt Rec	Vote Cast	Sponsor
1	Elect Director Richard H. Anderson	For	For	Management
2	Elect Director Edward H. Bastian	For	For	Management
3	Elect Director Roy J. Bostock	For	For	Management
4	Elect Director John S. Brinzo	For	For	Management
5	Elect Director Daniel A. Carp	For	For	Management
6	Elect Director John M. Engler	For	For	Management
7	Elect Director Mickey P. Foret	For	For	Management
8	Elect Director David R. Goode	For	For	Management
9	Elect Director Paula Rosput Reynolds	For	For	Management
10	Elect Director Kenneth C. Rogers	For	For	Management
11	Elect Director Kenneth B. Woodrow	For	For	Management
12	Advisory Vote to Ratify Named Executive Officers' Compensation	For	For	Management
13	Advisory Vote on Say on Pay Frequency	One Year	One Year	Management
14	Ratify Auditors	For	For	Management
15	Provide for Cumulative Voting	Against	For	Shareholder

===== END NPX REPORT