MSRB
Municipal Securities
Rulemaking Board

EMMA®
Electronic Municipal Market Access

EMMA Dataport Manual and Specifications for 529 Savings Plans/ABLE Programs Data (Form G-45) Submissions

Version 3.2, Effective November 2022

Revision History

Version	Date	Description of Changes
1.0	February 2015	Initial Version of Form G-45 Manual and Specifications.
1.1	June 2015	Updated manual to reflect the addition of preview feature.
1.2	July 2015	Updated manual to reflect ability to save data for multiple plans.
1.3	August 2015	Updated the Resources and Support section to reflect the change in hours of operation for Email Support.
1.4	June 2016	Updated to reflect the user navigation changes to the www.MSRB.org homepage, MSRB Gateway Login and Main Menu landing pages.
2.0	June 2018	Updated to reflect the addition of ABLE submissions and inclusion of Plan Service and Transaction and Service Fee tabs (See MSRB Notice 2017-24) and updated references to College Savings Plans Network Disclosure Principles Statement No. 6. Other enhancements to Form G-45 include data quality check for Aggregate Plan Information entered and data quality check for Asset Class and Underlying Investment. Updated the automated computer-to-computer submission (B2B) to incorporate the enhancements made to Form G-45. Also, removed the word "College" from 529 savings plans to reflect the Tax Cuts and Jobs Act of 2017.
2.1	November 2018; Effective June 30, 2019	Updated to reflect the addition of two new data elements to the investment option submission: 1. "Closed to new investors" 2. "Closed to current investors" Updated to reflect investment performance changes: 1. Benchmark Three-Year Performance is no longer applicable on new submissions 2. Annualized Three-Year Return is no longer applicable on new submissions Updated to reflect that the Investment Option information subsection "Program Management Fee" requires that an underwriter report the amount of the program management fee assessed by the 529 savings plan.

Version	Date	Description of Changes
3.0	August 2019	Updated to reflect EMMA Dataport user interface changes.
3.1	August 2020	Updated to reflect URL changes due to the MSRB's cloud migration and reorganize and consolidate information on related rules and resources.
3.2	November 2022	Updated links as needed for the revised MSRB.org website.

Resources and Support

Contact the MSRB
MSRB Support
Phone: 202-838-1330
Email: MSRBsupport@msrb.org.
Live support: 7:30 a.m. – 6:30 p.m. ET.
E-mail support: 7:00 a.m. – 7:00 p.m. ET.

Municipal Securities Rulemaking Board
1300 I Street NW, Suite 1000
Washington, DC 20005
Phone: 202-838-1500
MSRB Website: www.msrb.org
EMMA Website: emma.msrb.org

Core Operational Hours
7:00 a.m. to 7:00 p.m. ET on business days*
Excludes weekends and holidays identified on the **MSRB System Holiday Schedule and planned or unplanned outages as communicated on the **MSRB Systems Status** webpage.*

Related MSRB Rules and Resources

- Rule G-45: Reporting of Information on Municipal Fund Securities

Overview

About the MSRB

The MSRB protects investors, state and local governments and other municipal entities, and the public interest by promoting a fair and efficient municipal securities market. The MSRB fulfills this mission by regulating the municipal securities firms, banks and municipal advisors that engage in municipal securities and advisory activities. To further protect market participants, the MSRB provides market transparency through its Electronic Municipal Market Access (EMMA®) website, the free, official repository for information on all municipal bonds. The MSRB also serves as an objective resource on the municipal market and provides extensive education and outreach to market stakeholders. The MSRB is a self-regulatory organization governed by a board of directors that has a majority of public members, in addition to representatives of regulated entities. The MSRB is overseen by the Securities and Exchange Commission and Congress.

About this Manual

The EMMA 529 savings plans/ABLE programs data submission service receives submissions of Form G-45 from dealers acting in the capacity of an underwriter for a 529 savings plan or ABLE program pursuant to [MSRB Rule G-45](.).

Rule G-45 requires dealers, when acting in the capacity of an underwriter for a 529 savings plan or an ABLE program, to submit information on a semiannual or, in the case of performance data, annual basis, to the MSRB.

This manual provides instructions and specifications for submitting Form G-45 to the EMMA system and is presented in two parts:

- **Part One** provides instructions for submitting Form G-45 via EMMA Dataport.
- **Part Two** provides instructions, figures, and specifications for submitting Form G-45 via an automated computer-to-computer (B2B) interface.

Form G-45, a collection of data elements provided in electronic format pursuant to Rule G-45, can be found in the appendix of this manual. The appendix also includes descriptions of the data elements required by Form G-45.

 This symbol appears within this manual to call out important information or directions.

This resource is for informational purposes only and should be considered in conjunction with

the applicable MSRB rules and any related interpretations. The complete text of all MSRB rules and interpretations is available at https://www.msrb.org/Rules-and-Interpretations/MSRB-Rules.

Table of Contents

PART 1: Submitting Form G-45 (529 Savings Plans/ABLE Programs) via EMMA Dataport

Access to EMMA Dataport

EMMA Dataport is the application through which submissions of primary market, continuing disclosure documents and other information are made to the MSRB.

A Gateway account is required to make submissions to the EMMA system. MSRB Gateway serves as a secure access point for all MSRB systems. Dealers and municipal advisors are required to register with the MSRB via the online registration process in Gateway before an MSRB Gateway account is created. See the MSRB Registration Manual for guidance on how to register with the MSRB and establish an MSRB Gateway account.

Submissions of Form G-45 by underwriters under Rule G-45, and their designated agents, can only be made by users who have **EMMA Form G-45 Submissions** access rights assigned to them by their organization's Master Account Administrator. See the MSRB Gateway User Manual for Dealers and Municipal Advisors for guidance on how to create and manage a user account.

Logging in to EMMA Dataport to make a Form G-45 submission can be done from the EMMA homepage at emma.msrb.org or the MSRB website homepage at www.msrb.org.

The beta version of EMMA Dataport for making test Form G-45 submissions is available at emmabeta.msrb.org.

Log in from the EMMA Homepage

1. From the EMMA homepage at https://emma.msrb.org the **EMMA Dataport** tab.
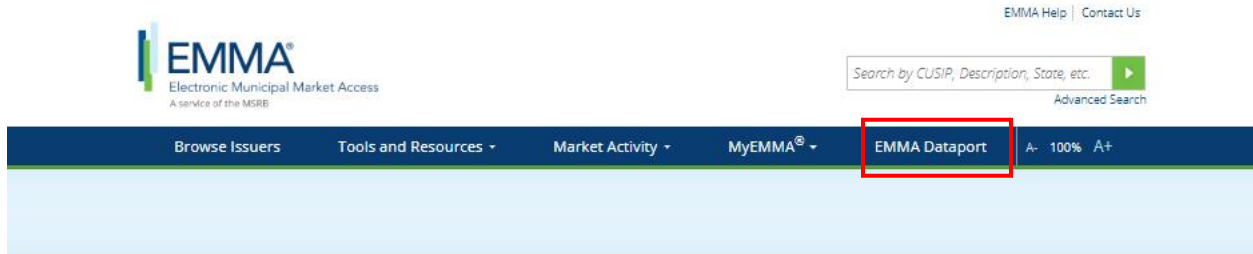
2. Then click the **Log in to MSRB Gateway** button.

3. From the MSRB Gateway landing page, enter your User ID and Password, and click Login.

Create a New Form G-45 Submission

The EMMA Dataport Submission Portal displays buttons that represent the submission types you are authorized to make within the EMMA system. To create a new submission of Form G-45:

1. click the **529 Savings Plans/ABLE Programs (Rule G-45)** button.

2. From the dropdown menu, select the state of the 529 savings plans/ABLE programs for which you are creating a new submission. A list of all available 529 savings plans or ABLE programs will appear for the selected state, with the MSRB-assigned plan ID.

If a state has not previously submitted a plan disclosure document to EMMA, a message will indicate that no plans were found. Refer to the EMMA Dataport Manual for 529 Savings Plans/ABLE Programs Disclosure Submissions Manual for guidance on how to submit new 529 savings plans or ABLE programs and related disclosure documents to the EMMA system.

3. Click **Create New** next to the plan for which you are making a Form G-45 submission.

Form G-45 requires the submission of information falling into four main categories, described below: Plan Descriptive Information, Aggregate Plan Information, Plan Service and Transaction Fees, and Investment Option Information.

A complete listing of the Form G-45 data elements and their descriptions are provided in the appendix of this manual.

4. To begin, use the dropdown menu to select the reporting period covered by the submission.

Plan Descriptive Information

Rule G-45 requires underwriters to report to the MSRB the following information:

- The name of the state;
- The name of the plan;
- The name of the underwriter and their contact information;

- The name of other underwriters on whose behalf the underwriter is submitting information;
- The name of the program manager and their contact information; and
- The plan website address and type of marketing channel (whether a "direct-sold" or "advisor-sold" plan).

5. Enter the appropriate information into each of the fields on the **Plan Descriptive Information** subpage.

Aggregate Plan Information

Under Rule G-45, underwriters must report to the MSRB, for the most recent semi-annual reporting period, the total plan assets, total contributions and total distributions.

6. Enter the appropriate values into each of the fields on the **Aggregate Plan Information** screen.

Submission Status: Not Submitted

You are acting on behalf of: SAMPLE CO (G0000B)

STATE OF ALASKA SAVINGS PLAN (STATE: AK)

Save   Preview   Exit

Plan Descriptive Information	>
Aggregate Plan Information	>
Plan Service and Transaction Fees	>
Investment Option Information	>
Expand All Sections	>

AGGREGATE PLAN INFORMATION

All fields are required.

	Aggregate Plan Total
Total Assets ($):	
Total Contributions ($):	
Total Distributions ($):	

Plan Service and Transaction Fees

7. Complete the Plan Service and Transaction Fees section, as applicable.

Submission Status: Not Submitted

You are acting on behalf of: SAMPLE CO (G0000B)

STATE OF ALASKA SAVINGS PLAN (STATE: AK)

Save   Preview   Exit

Plan Descriptive Information >

Aggregate Plan Information >

Plan Service and Transaction Fees >

Investment Option Information >

Expand All Sections >

Resources

Form G-45 Manual and Specifications

MSRB Gateway Manual

MSRB Rule G-45

PLAN SERVICE AND TRANSACTION FEES (AS APPLICABLE)

Account Opening Fee ($)		Overdraft Fee ($)	
Investment Administration Fee ($)		Copy of Check or Statement Fee (per request) ($)	
Cancellation/Withdrawal Fee ($)		Copy of Check Images Mailed with Monthly Statement Fee ($)	
Change in Account Owner Fee ($)		Check Fee ($)	
Change in Investment Option/Transfer Fee ($)		Returned Check Fee ($)	
Rollover Fee ($)		Checking Account Option Fee ($)	
Returned Excess Aggregate Contributions Fee ($)		Re-Issue of Disbursement Check Fee ($)	
Rejected ACH or EFT Fee ($)		Stop Payment Fee ($)	
Overnight Delivery Fee ($)		Debit Card Fee ($)	
In-Network ATM Fee ($)		Debit Card Replacement Fee ($)	
Out-of-Network ATM Fee ($)		Outgoing Wire Fee ($)	
ATM Mini Statement Fee ($)		Expedited Debit Card Rush Delivery Fee ($)	
International POS/ATM Transaction Fee (%)		Paper Fee ($)	
Foreign Transaction Fee (%)		Miscellaneous Fee ($)	

Add Note

Investment Option Information

For each investment option offered by the plan, Rule G-45 requires underwriters to provide the MSRB with the following information:

- The name and type of investment option;
- The inception date of the investment option;
- Total assets, contributions and distributions in the investment option as of the end of the most recent semi-annual period;
- The plan service and transaction fee in effect as of the most recent semi-annual reporting period;
- The asset classes in the investment option;
- The actual asset class allocation of the investment option as of the end of the most recent semi-annual period;
- The name and allocation percentage of each underlying investment in each investment option, as of the end of the most recent semi-annual period;
- The investment option's performance for the most recent calendar year, as well as any benchmark and its performance for the most recent calendar year;
- Total contributions to and distributions from the investment option for the most recent semi-annual reporting period; and
- The fee and expense structure at the investment option level in effect as of the end of the most recent semi-annual reporting period.

8. Click the **Investment Option Information** tab and then click the **Add Investment Option/Share Class** link to provide the required information listed above.

You are directed to the **Investment Option Information** screen.

The Investment Option ID must be a unique identifier of each investment option and can include up to nine alphanumeric characters.

9. Click the **Add Asset Class** link to add asset classes in the investment option, as well as the allocation percentage. Or, click the **Add Underlying Investment** link to provide the name and allocation percentage of all underlying investments in each investment option.

A data quality check is provided under **Asset Class** and **Underlying Investment** to display the total percentage entered. Numerals in decimals up to three digits can be entered.

10. Provide the investment option's performance data, as well as any benchmark and its performance for the most recent calendar year.

11. Click the **Add Note** link under the Investment Performance table to [optionally] add explanatory text or footnotes explaining principles followed, and any additional information thatmay enhance a reviewer's understanding of the direct-sold or advisor-sold plan's performance.

Investment performance, as well as any benchmark information, is required for annual submissions only.

12. Complete the Fees and Expenses section, then click the **Save Investment Option** button at the bottom of the Investment Option screen.

Leave fields blank that do not apply.

To add more investment options, click the **Add Investment Option/Share Class** link that appears under the list of investment options you have previously added.

From this screen, you can also edit any of the investment option information you previously provided by clicking the **Edit** link next to the investment option.

13. Once you have populated all the required fields, review your submission for accuracy and completeness.

Preview and Submit Form G-45

To review your submission before submitting, click the **Preview** button.

Clicking the **Save** button will save the data you have entered before submitting.

ⓘ Users can save data but cannot save a plan from a different reporting period at the same time.

Clicking the **Exit** button closes the EMMA Dataport Submission Portal without saving any work. You will also lose all work if your computer is inactive and "times out" after 20 minutes of inactivity. If you must leave your computer after entering data, but before being able to submit, it is recommended that you click **Save**.

In the course of making a submission, the **Submission Status** field at the top of each EMMA Dataport screen displays either Not Submitted or Submitted. This indicates whether any information has been submitted. To meet obligations under Rule G-45, you must have a "Submitted" status for each plan included in Form G-45.

1. Review the information on the **Preview** or **Print Preview** screens to check for accuracy and completeness. If revisions are needed, click the **Edit** button.

An error message will display if the information provided at the Aggregate Plan Information level does not match the combined Total Assets, Total Contributions or Total Distributions provided at each Investment Option Information level.

a. If you click Yes: Continue, you will be navigated to the Preview page.

b. If you click **No: Edit**, you will be navigated to the Aggregate Plan Information level page, which will display the combined sum of all Investment Options in addition to the Aggregate Plan Information total. When you are done making changes, click **Preview**. If you choose not to make any changes, continue to preview the submission.

2. The Preview page will appear, and you will be able to review your submission.

3. Once you are satisfied with your submission information, click the **Submit** button. A confirmation screen will appear. When you are ready to submit the form to the MSRB, click **Yes: Submit**.

After submitting, a confirmation screen containing the following information will appear:

- A submission ID (EA0000000000005 in the example below), which is a unique identifier of the submission;
- A link to print your submission confirmation, which provides you with a printer-friendly version of your completed Form G-45, along with the date and time of submission to EMMA, for recordkeeping purposes;
- A link to start a new submission or modify your existing submission; and
- A link to send your submission confirmation to a secondary email address.

SUBMISSION ID (Q30000000000068) PUBLISHED SUCCESSFULLY

Print Submission
Start new submission
A confirmation email has been sent to your email address on file.
To send a duplicate confirmation email to a secondary email address
click here
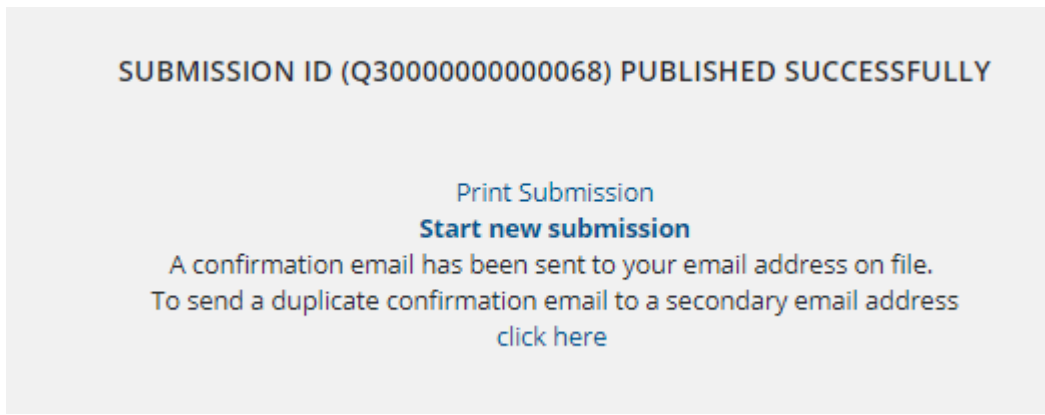
Upon successful submission, the EMMA system sends an electronic receipt to the submitter. The receipt includes the submitted information and a link to EMMA Dataport to view or modify the submission.

Modify Submitted Form G-45

To make changes to information previously submitted in Form G-45:

1. click the **View Existing** link next to the plan for which you have previously made Form G-45 submissions.

A list of previous Form G-45 submissions, labeled by reporting period, will appear on the **529 savings plans/ABLE programs (Rule G-45)** screen.

2. Click the **Modify** link next to the submission which you wish to modify.

The screenshot below shows details of the submission.

3. Verify or modify the information previously submitted in Form G-45 and click **Submit** to resubmit the form.

| | | | | | Save | Edit | Submit | Exit |

Form G-45 Submission Preview (Reporting Period: 2017, Ending June 30)

PLAN DESCRIPTIVE INFORMATION

Plan Information   Print

Plan Name: VA STATE COLLEGE SAVINGS PLAN(State:VA)
Plan ID: VA-0001
Plan Website URL: http://collegesavingsplan4.com
Marketing Channel: Advisor Sold

Program Manager Information		Underwriter Information	
Organization Name:	Program Manager Org Name	Organization Name:	Program Manager Org Name 2
Primary Contact First Name:	John	Primary Contact First Name:	John
Last Name:	Smith	Last Name:	Smith
Address:	1300 i st NW	Address:	1300 i st NW
City:	Washington	City:	Washington
State:	DC	State:	DC
Zip:	20005	Zip:	20005
Phone Number:	703-4578741	Phone Number:	7894561231
Email Address:	jdoe@programmanagerorgname.com	Email Address:	jdoe@programmanagerorgname.com

AGGREGATE PLAN INFORMATION
Total Assets ($): 67
Total Contributions ($): 67
Total Distributions ($): 765

Plan Service and Transaction Fees (As applicable)

Account Opening Fee ($) : 23	Overdraft Fee ($) : 334
Investment Administration Fee ($) : 534	Copy of Check or Statement Fee (per request) ($) : 35
Cancellation/Withdrawal Fee ($) : 2	Copy of Check Images Mailed with Monthly Statement Fee ($) : 232
Change in Account Owner Fee ($) : 34	Check Fee ($) : 232
Change in Investment Option/Transfer Fee ($) : 566	Returned Check Fee ($) : 100
Rollover Fee ($) : 43	Checking Account Option Fee ($) : 10
Returned Excess Aggregate Contributions Fee ($) : 23	Re-Issue of Disbursement Check Fee ($) : 442
Rejected ACH or EFT Fee ($) : 457	Stop Payment Fee ($) :
Overnight Delivery Fee ($) :	Debit Card Fee ($) :
In-Network ATM Fee ($) :	Debit Card Replacement Fee ($) :
Out-of-Network ATM Fee ($) :	Outgoing Wire Fee ($) :
ATM Mini Statement Fee ($) :	Expedited Debit Card Rush Delivery Fee ($) :
International POS/ATM Transaction Fee (%) :	Paper Fee ($) :
Foreign Transaction Fee (%) :	Miscellaneous Fee ($) :

(**Submission Preview Continued**)

Investment Option Information

Investment Option ID: 999999999

Name: Tom	Total Assets ($): 576
Inception Date: 01/01/2019	Total Contributions ($): 45
Investment Type: Age Based or Year of Enrollment	Total Distributions ($): 33
Closed to New Investors: No	
Closed to Current Investors: No	

Asset Class

Asset Class: Cash or Cash Equivalents   Allocation Percentage: 34

Underlying Investment

Underlying Investment Name: test   Allocation Percentage: 50

Investment Performance

	YTD Return (%)	1 Year Return (%)	Annualized 5 Year Return (%)	Annualized 10 Year Return (%)	Annualized Since Inception Return (%)
Annual Returns Including Sales Charge					
Annual Returns Excluding Sales Charge					

Benchmark Performance

There are no benchmarks.

Fees and Expenses

Asset-Based Fees	**Additional Investor Expenses**
Estimated Underlying Fund Expenses (%) : 34	Maximum Initial Sales Charge (%) :
Program Management Fee (%) : 67	Maximum Deferred Sales Charge (%) :
State Fee (%) :	Annual Account Maintenance Fee ($) In State: Out of State:
Miscellaneous Fee (%) : 53	Audit Fee (%) :
Annual Distribution/Service/Sales Fee (%) :	Bank Administration Fee ($) :
Total Annual Asset-Based Fees (%) :	

A confirmation screen containing a submission ID and link to print the submission for recordkeeping purposes will appear. Submitters will receive an electronic receipt upon successful submission.

Pre-populate a New Submission with Existing Data

Form G-45 allows submitters to pre-populate many of the required data elements with information from a prior submission. This function allows submitters to make a submission without having to re-enter data elements that typically do not change from one submission to the next.

To create a new Form G-45 submission using the pre-populated function:

1. Click the **Create New** link next to the plan for which you wish to submit Form G-45.
2. Click the **Pre-Populated Form** option from the pop-up box.

A pre-populated form with the following data elements from the most recent submission will appear.

Plan Descriptive Information:

- Plan Name
- Plan ID
- Plan Website URL
- Marketing Channel
- Program Manager Information and Underwriter Information:
  - Organization Name
  - Primary Contact
  - Address
  - City
  - State
  - Zip
  - Phone Number
  - Email Address

Plan Service and Transaction Fees:

- Account Opening Fee
- Investment Administration Fee
- Cancellation/Withdrawal Fee
- Change in Account Owner Fee
- Change in Investment Option/Transfer Fee
- Rollover Fee
- Returned Excess Aggregate Contributions Fee
- Rejected ACH or EFT Fee
- Overnight Delivery Fee
- In-Network ATM Fee
- Out of Network ATM Fee
- ATM Mini Statement Fee
- International POS/ATM Transaction Fee
- Foreign Transaction Fee
- Overdraft Fee
- Copy of Check or Statement Fee (per request)
- Copy of Check Images Mailed with Monthly Statement Fee
- Check Fee
- Returned Check Fee
- Checking Account Option Fee
- Re-Issue of Disbursement Check Fee

- Stop Payment Fee
- Debit Card Fee
- Debit Card Replacement Fee
- Outgoing Wire Fee
- Expedited Debt Card Rush Delivery Fee
- Paper Fee
- Miscellaneous Fee

Investment Option Information:
- Investment option ID
- Investment option name and type
- Inception date
- Asset classes in the investment option
- Name of each underlying investment option
- Benchmark name, if any
- Fees and expenses

Enter the appropriate information for the data elements that are not pre-populated and make any necessary corrections to the pre-populated data elements. Click the **Submit** button to complete the submission.

Recordkeeping

Underwriters are required to retain electronic copies of Form G-45 and related XML data files they submit to the EMMA system. Upon successful submission of Form G-45, the submitter has an opportunity to print a confirmation of the submission. In addition, EMMA sends an email to the submitter after a completed submission.

PART 2: Automated Submission of Form G-45

The EMMA Form G-45 Submission Service includes an automated computer-to-computer submission interface as an alternative to the web interface submission process described in part one of this manual. The EMMA Dataport web user interface is designed to accept input for a single submission at a time, while the computer-to-computer interface supports input of multiple submissions.

While the specifications are intended for technical specialists, non-technical submitters may note these features.

Preparing for Computer-to-Computer Submission

The main steps in preparing to use the computer-to-computer interface are to:

- Review the schema, which defines the structure and content of submission data messages (data messages consist of required Form G-45 information);

- Identify within your organization the sources of data to be submitted within the schema;

- Set up a client proxy using commercially available tools (some examples are Java or .NET);

- Establish a connection between your firm's client proxy and the EMMA web service interface;

- Set up test cases;

- Communicate with the MSRB to arrange to test interoperability of your client proxy and EMMA; and

- Conduct systems testing.

Using the Computer-to-Computer Interface

- The EMMA Dataport web interface (sometimes called the "web form") is the portion of the EMMA system tailored for individual users to manually submit Form G-45 and other disclosure information. Submissions made through the computer-to-computer interface may be viewed and updated by the submitter on the web form. Generally, the submission appears immediately on the web form after receipt through the computer-to-computer interface.

- Each message that reaches EMMA will be followed immediately by a response message to the submitter's computer.

- Response messages will include the Submission ID, Submission Status and Message Return Code. Subsequent updates must use the Submission ID, Plan Reference ID along with the Reporting Year and Reporting Period as submission update identifiers.

- Response messages will be returned to the submitter system when certain types of conditions exist with respect to the data submitted. Response messages are classified as Error or Information depending on the nature and severity of the exception:

  o An error message indicates termination of message processing with failure of the intended action. The submitter should take appropriate corrective action and re-submit as needed.

  o An information message indicates certain action taken by EMMA that does not materially affect completeness of the submission but of which the submitter should be aware.

Web Service Interface Specifications

The MSRB exposes a web service interface allowing for the submission of SOAP (Simple Object Access Protocol) standard XML (extensible markup language) messages using secure, computer-to-computer communications. This interface is remotely consumed by applications written by or for submitters in a wide variety of programming languages and running on a wide variety of platforms.

Submitters using the automated submission interface connect to the web service (production) interface using the following URL:

https://services.emma.msrb.org/DisclosureServices/G45Disclosure.svc

Test Web Service Interface

The beta version of the automated submission interface serves as a platform for submitters to conduct tests and ensure proper programming and configuration of their applications for making Form G-45 submissions to the EMMA system.
The URL for the beta version of the web service interface for making automated Form G-45 submissions is:

https://servicesbeta.emma.msrb.org/DisclosureServices/G45Disclosure.svc

Data submitted to this site is not made available to the public.

Message Processing, Schemas, Data Tags and Required Elements

Data is submitted through the automated submission interface as Simple Object Access Protocol (SOAP) messages. Data elements submitted in a data message for Form G-45 submissions are organized in a hierarchical relationship into the following categories: (i) submission data; (ii) submitter data; (iii) plan data; (iv) program manager and underwriter contact data; (v) option data; (vi) asset class data; (vii) underlying investments data; (viii) investment performance data; (ix) benchmark performance data; and (x) fees and expenses data. These categories and the available data tags applicable to each category shall, as applicable, be included in the XML message payload. Each message must also include a header containing an authentication token and web services protocol support as detailed in the XML Message Schemas section of this manual. Below are the typical data elements provided in a data message, together with the value to be selected or entered. Sample XML messages representing a standard submission are also provided below.

- **submission data**
  - i. submission status (select **Publish**)
  - ii. submission id (only for update scenario)
- **submitter data**
  - i. managing MSRB ID (enter MSRB ID)
- **plan data**
  - i. plan reference ID (enter plan reference identifier). [Click here for a list of G-45 plan reference IDs](#)
  - ii. reporting year (enter calendar year)
  - iii. reporting period (select value: ending June 30 or ending December 31)
  - iv. plan information website (enter value)
  - v. marketing channel (select value: direct sold or advisor sold)
  - vi. total aggregate assets (enter value)
  - vii. total aggregate contributions (enter value)
  - viii. total aggregate distributions (enter value)

- **program manager data**
  - i. organization name (enter full organization name)
  - ii. contact first name (enter name)
  - iii. contact last name (enter name)
  - iv. address (enter address)
  - v. city (enter city)
  - vi. state (enter state code)
  - vii. zip code (enter zip code)
  - viii. phone number (enter phone number)
  - ix. phone extension (enter phone extension)
  - x. email address (enter email address)

- **underwriter data**
    i. organization name (enter full organization name)
    ii. contact first name (enter name)
    iii. contact last name (enter name)
    iv. address (enter address)
    v. city (enter city)
    vi. state (enter state code)
    vii. zip code (enter zip code)
    viii. phone number (enter phone number)
    ix. phone extension (enter phone extension)
    x. email address (enter email address)
- **plan service and transaction fees** (enter values)
    i. account opening fee
    ii. investment administration fee
    iii. cancellation withdrawal fee
    iv. change in account owner fee
    v. change in investment option transfer fee
    vi. rollover fee
    vii. returned excess aggregate contributions fee
    viii. rejected ACH or EFT fee
    ix. overnight delivery fee
    x. in network ATM fee
    xi. out of network ATM fee
    xii. international POS/ATM transaction fee
    xiii. foreign transaction fee
    xiv. overdraft fee
    xv. copy of check or statement fee, per request
    xvi. copy of check images mailed with monthly statement fee
    xvii. ATM mini statement fee
    xviii. check fee
    xix. returned check fee
    xx. checking account option fee
    xxi. reissue of disbursement checks fee
    xxii. stop payment fee
    xxiii. debit card fee
    xxiv. debit card replacement fee
    xxv. outgoing wire fee
    xxvi. expedited debit card rush delivery fee
    xxvii. paper fee
    xxviii. miscellaneous fee
    xxix. note
- **Investment option data**
    i. closed to new investors (enter value)

  ii. closed to current investors (enter value)

  iii. investment option external ID (enter value)

  iv. name (enter name of investment option)

  v. inception date (enter date)

  vi. investment type (select value: age based or year of enrollment, individual or stand alone, static or fixed)

  vii. total assets (enter value)

  viii. total contributions (enter value)

  ix. total distributions (enter value)

- **asset class data**

  i. asset class (select value: domestic equities, international equities, fixed income products, commodities, insurance products, bank products, cash and cash equivalents or other products)

  ii. allocation percent (enter value)

- **underlying investments data**

  i. name (enter name)

  ii. allocation percent (enter value)

- **investment performance data**

  i. total annual return percent including sales charges (enter values for YTD, 1 Year, 5 Year, 10 Year and Since Inception)

  ii. total annual return percent excluding sales charges (enter values for YTD, 1 Year, 5 Year, 10 Year and Since Inception)

  iii. note (enter text)

- **benchmark performance data**

  i. benchmark name (enter name)

  ii. benchmark annual return percent (enter value for YTD, 1 Year and Since Inception)

- **fees and expenses data** (enter values)

  i. estimated underlying fund expenses

  ii. program management fee

  iii. state fee

  iv. miscellaneous fee

  v. annual distribution/service/sales fee

  vi. total annual asset-based fees

  vii. additional investor expenses

  viii. maximum initial sales charge

  ix. maximum deferred sales charge

  x. audit fee

  xi. annual account maintenance fee (in state and/or out of state)

  xii. bank administration fee

Figure 1: Message Processing Overview
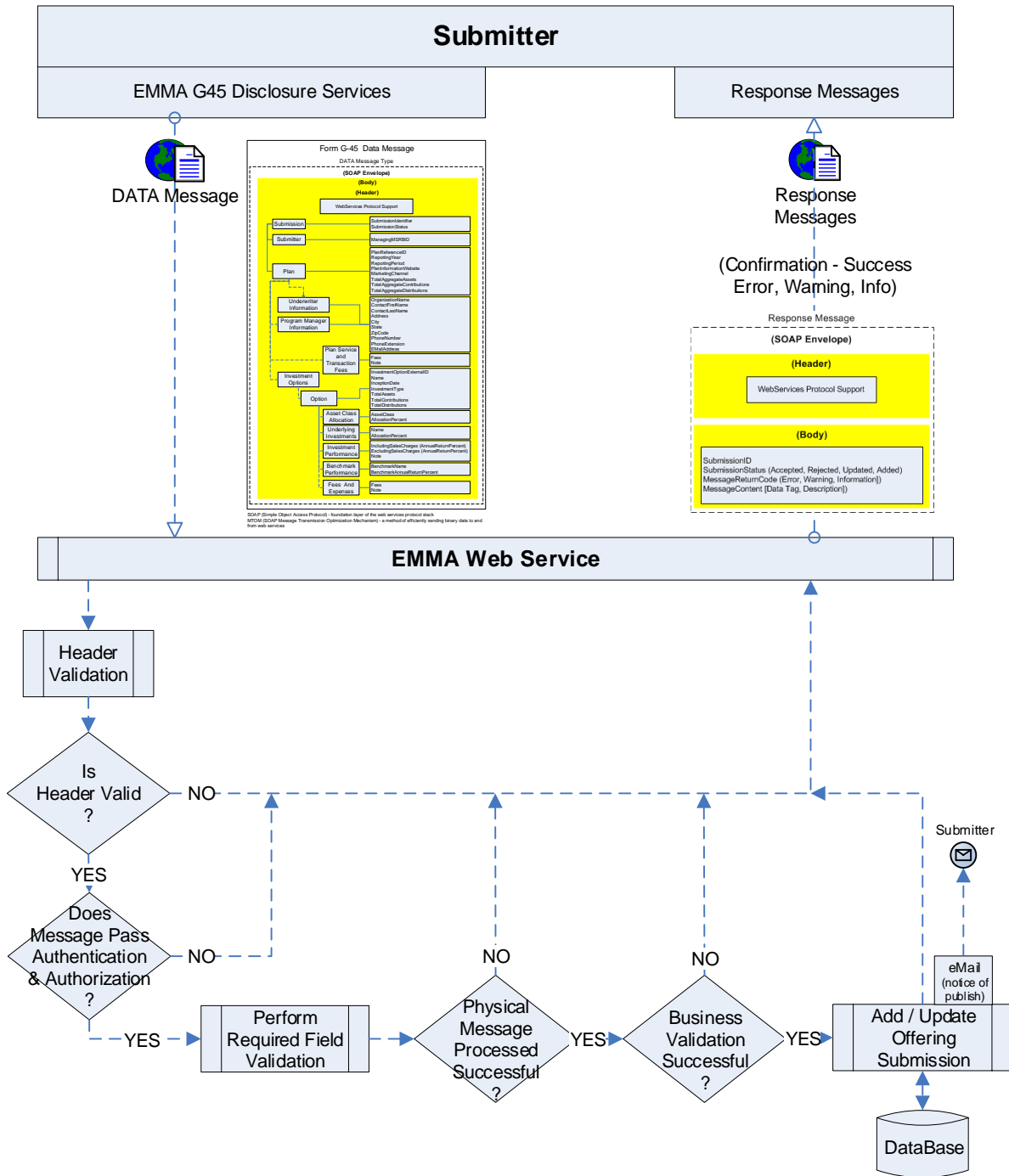
Figure 2: Form G-45 Data Tag Structure

Form G-45 Data Message

DATA Message Type

(SOAP Envelope)

(Body)

(Header)

WebServices Protocol Support

Submission
- SubmissionIdentifier
- SubmissionStatus

Submitter
- ManagingMSRBID

Plan
- PlanReferenceID
- ReportingYear
- ReportingPeriod
- PlanInformationWebsite
- MarketingChannel
- TotalAggregateAssets
- TotalAggregateContributions
- TotalAggregateDistributions

Underwriter Information

Program Manager Information
- OrganizationName
- ContactFirstName
- ContactLastName
- Address
- City
- State
- ZipCode
- PhoneNumber
- PhoneExtension
- EMailAddress

Plan Service and Transaction Fees
- Fees
- Note

Investment Options

Option
- InvestmentOptionExternalID
- Name
- InceptionDate
- InvestmentType
- TotalAssets
- TotalContributions
- TotalDistributions
- ClosedToNewInvestorsFlag
- ClosedToCurrentInvestorsFlag

Asset Class Allocation
- AssetClass
- AllocationPercent

Underlying Investments
- Name
- AllocationPercent

Investment Performance
- IncludingSalesCharges (AnnualReturnPercent)
- ExcludingSalesCharges (AnnualReturnPercent)
- Note

Benchmark Performance
- BenchmarkName
- BenchmarkAnnualReturnPercent

Fees and Expenses
- Fees
- Note

SOAP (Simple Object Access Protocol) - foundation layer of the web services protocol stack

MTOM (SOAP Message Transmission Optimization Mechanism) - a method of efficiently sending binary data to and from web services

Data Tags and Requirements for Form G-45 Disclosure

Table 1: Message Data Tag Glossary

Below is a list of data tags to be used for submitting Form G-45 data messages using the EMMA website's automated (computer-to-computer) submission interface. These data elements are organized in a hierarchical data relationship. This glossary includes each data element's XML container, data tag, data specifications, listing of enumerated values, and an example of the data format where the submitter is to enter a value.

> A complete listing of the Form G-45 data elements and their descriptions are provided in the appendix of this manual.

Submission Data Tags Description and Specification Form G-45 Submissions EMMA G-45 Disclosure Service Message		
XML Container	**Data Tag**	**Data Specification**
Submission	Submission Status	SubmissionStatusType Enumerated Value: • Publish
	Submission Identifier	Max15Text ex: EA0000000000063
Submitter	Managing MSRBID	Max15Text ex: A12345
Plan	Plan Reference ID	String {Max10Text} ex: AK-000001
	Reporting Year	YearType ex: 2015
	Reporting Period	ReportingPeriodType Enumerated Value: • EndingJune30 • EndingDecember31
	Plan Information Website	String {Max150Text} ex: www.plan.com
	Marketing Channel	MarketingChannelType Enumerated Value: • AdvisorSold • DirectSold

Submission Data Tags Description and Specification Form G-45 Submissions EMMA G-45 Disclosure Service Message		
XML Container	**Data Tag**	**Data Specification**
	Total Aggregate Assets	MoneyType{Max15Numbers} ex:10000000
	Total Aggregate Contributions	MoneyType{Max15Numbers} ex:10000000
	Total Aggregate Distributions	MoneyType{Max15Numbers} ex: 10000000
Program Manager Information	Organization Name	String {Max250Text} ex: 529 Underwriter
	Contact First Name	String {Max50Text} ex: Emma
	Contact Last Name	String {Max50Text} ex: Jones
	Address	String {Max250Text} ex: 123 Security Road
	City	String {Max50Text} ex: Alexandria
	State	String; StateCode;2 ex: VA
	Zip Code	ZipType ex: 22301-5555
	Phone Number	PhoneType ex: 703-555-2222
	Phone Extension	PhoneExtType ex: 12345
	Email Address	EmailType ex: ejones@underwriter.com
Underwriter Information	Organization Name	String {Max250Text} ex: ABLE Underwriter
	Contact First Name	String {Max50Text} ex: Emma
	Contact Last Name	String {Max50Text} ex: Jones
	Address	String {Max250Text} ex: 123 Security Road
	City	String {Max50Text} ex: Alexandria
	State	String; StateCode;2 ex: VA

Submission Data Tags Description and Specification Form G-45 Submissions EMMA G-45 Disclosure Service Message		
XML Container	**Data Tag**	**Data Specification**
	Zip Code	ZipType ex: 22301-5555
	Phone Number	PhoneType ex: 703-555-2222
	Phone Extension	PhoneExtType ex: 12345
	Email Address	EmailType ex: ejones@underwriter.com
Plan Service and Transaction Fees	Account Opening Fee	MoneyType ex: 100
	Investment Administration Fee	MoneyType ex: 100 MoneyType ex: 100
	Cancellation Withdrawal Fee	MoneyType ex: 100
	Change in Account Owner Fee	MoneyType ex: 100
	Change in Investment Option Transfer Fee	MoneyType ex: 100
	Rollover Fee	MoneyType ex: 100
	Returned Excess Aggregate Contributions Fee	MoneyType ex: 100
	Rejected ACH or EFT Fee	MoneyType ex: 100
	Overnight Delivery Fee	MoneyType ex: 100
	In Network ATM Fee	MoneyType ex: 100
	Out of Network ATM Fee	MoneyType ex: 100
	ATM Mini Statement Fee	MoneyType ex: 100
	International POS ATM Transaction Fee	DecimalType {+/- ###.###} ex: 0.125
	Foreign Transaction Fee	DecimalType {+/- ###.###} ex: 0.125
	Overdraft Fee	MoneyType ex: 100
	Copy of Check or Statement Fee Per Request	MoneyType ex: 100
	Copy of Check Images Mailed with Monthly Statement Fee	MoneyType ex: 100
	Check Fee	MoneyType ex: 100

	Submission Data Tags Description and Specification Form G-45 Submissions EMMA G-45 Disclosure Service Message	
XML Container	**Data Tag**	**Data Specification**
	Returned Check Fee	MoneyType ex: 100
	Checking Account Option Fee	MoneyType ex: 100
	Reissue of Disbursement Checks Fee	MoneyType ex: 100
	Stop Payment Fee	MoneyType ex: 100
	Debit Card Fee	MoneyType ex: 100
	Debit Card Replacement Fee	MoneyType ex: 100
	Outgoing Wire Fee	MoneyType ex: 100
	Expedited Debit Card Rush Delivery Fee	MoneyType ex: 100
	Paper Fee	MoneyType ex: 100
	Miscellaneous Fee	MoneyType ex: 100
	Note	Text
Option	Closed to New Investors Flag	BooleanType ex: Yes/No
	Closed to Current Investors Flag	BooleanType ex: Yes/No
	Investment Option External ID	InvestmentOptionIdType ex: 125888BB4
	Name	String {Max250Text] ex: Jones River Progressive Fund
	Inception Date	ISODate Ex : 2012-05-20
	Investment Type	Enumerated Value: • AgeBasedOrYearOfEnrollment • StaticOrFixed • IndividualOrStandAlone
	Total Assets	MoneyType{Max15Numbers} ex: 1500000
	Total Contributions	MoneyType{Max15Numbers} ex: 1500000
	Total Distributions	MoneyType{Max15Numbers} ex: 1500000

Submission Data Tags Description and Specification Form G-45 Submissions EMMA G-45 Disclosure Service Message		
XML Container	**Data Tag**	**Data Specification**
Asset Class Allocation	Asset Class	AssetClassType Enumerated Value: • DomesticEquities • InternationalEquities • FixedIncomeProducts • Commodities • InsuranceProducts • BankProducts • CashOrCashEquivalents • OtherProductTypes
	Allocation Percent	DecimalType {+/- ###.###} ex: 5.50
Underlying Investments	Name	String{Max250Text} ex: Total Stock Market Index
	Allocation Percent	DecimalType {+/- ###.###} ex: 5.50
Investment Option Performance	Including Sales Charges (Annual Return Percent)	DecimalType {+/- ###.###} ex: 4.25
	Excluding Sales Charges (Annual Return Percent)	DecimalType {+/- ###.###} ex: 4.30
	Note	String {Max3500Text} ex: performance free text note
Benchmark Performance	Benchmark Name	String {Max250Text} ex: Benchmark Name
	Benchmark (Annual Return Percent)	DecimalType {+/- ###.###} ex: 15.50
Fees and Expenses	Estimated Underlying Fund Expenses	DecimalType {+/- ###.###} ex: 0.125
	Program Management Fee	DecimalType {+/- ###.###} ex: 0.125
	State Fee	DecimalType {+/- ###.###} ex: 0.125
	Miscellaneous Fees	DecimalType {+/- ###.###} ex: 0.125
	Annual Distribution Service Sales Fee	DecimalType {+/- ###.###} ex: 0.125
	Total Annual Asset Based Fees	DecimalType {+/- ###.###} ex: 0.125
	Maximum Initial Sales Charge	DecimalType {+/- ###.###} ex: 0.125

Submission Data Tags Description and Specification Form G-45 Submissions EMMA G-45 Disclosure Service Message		
XML Container	**Data Tag**	**Data Specification**
	Maximum Deferred Sales Charge	DecimalType {+/- ###.###} ex: 0.125
	Annual Account Maintenance Fee (In-State/Out-of-State)	MoneyType ex: 100
	Audit Fee	DecimalType {+/- ###.###} ex: 0.125
	Bank Administration Fee	MoneyType ex: 100
	Note	Text

Table 2: Required Message Tags

Below is a list of the data tags required for submission data messages. The data elements are organized in a hierarchical data relationship. This specification sets out each data element's XML container, data tag and if the tag value is required, optional, as applicable or not applicable, and possible qualifying conditions.

Submission Message Tags		
Form G-45 Submissions **EMMA G45 Disclosure Service Message**		
XML Container	**Data Tag**	**Required Indicator**
Submission	Submission Status	R
	Submission Identifier	R (Only when updating existing submissions)
Submitter	Managing MSRBID	R
Plan	Plan Reference ID	R
	Reporting Year	R
	Reporting Period	R
	Plan Information Website	R
	Marketing Channel	R
	Total Aggregate Assets	R
	Total Aggregate Contributions	R
	Total Aggregate Distributions	R
Program Manager Information and Underwriter Information	Organization Name	R
	Contact First Name	R
	Contact Last Name	R
	Address	R
	City	R
	State	R
	Zip Code	R
	Phone Number	R
	Phone Extension	AA
	Email Address	R

Submission Message Tags		
Form G-45 Submissions **EMMA G45 Disclosure Service Message**		
XML Container	**Data Tag**	**Required Indicator**
Plan Service and Transaction Fees	<Fee Name="AccountOpeningFee" > <Fee Name="InvestmentAdministrationFee" > <Fee Name="CancellationWithdrawalFee" > <Fee Name="ChangeInAccountOwnerFee" > <Fee Name="ChangeInInvestmentOptionTransferFee" > <Fee Name="RolloverFee" > <Fee Name="ReturnedExcessAggregateContributionsFee" > <Fee Name="RejectedACHorEFTFee" > <Fee Name="OvernightDeliveryFee" > <Fee Name="InNetworkATMFees" > <Fee Name="OutofNetworkATMFees" > <Fee Name="ATMMiniStatementFee" > <Fee Name="InternationalPOSATMTransactionFee"> <Fee Name="ForeignTransactionFee" > <Fee Name="OverdraftFee" > <Fee Name="CopyofCheckorStatementFee" > <Fee Name="CopyofCheckImagesMailedWithMonthlyStatementFee" > <Fee Name="CheckFee" > <Fee Name="ReturnedCheckFee" > <Fee Name="CheckingAccountOptionFee" > <Fee Name="ReissueofDisbursementChecksFee" > <Fee Name="StopPaymentFee" > <Fee Name="DebitCardFee" > <Fee Name="DebitCardReplacementFee" > <Fee Name="OutgoingWireFee" > <Fee Name="ExpeditedDebitCardRushDeliveryFee" > <Fee Name="PaperFee" > <Fee Name="MiscellaneousFees" >	AA
	Note	O
Investment Option	Closed to Current Investors Flag	O
	Closed to New Investors Flag	O
	Investment Option External ID	R
	Name	R
	Inception Date	R
	Investment Type	R
	Total Assets	R
	Total Contributions	R
	Total Distributions	R

Submission Message Tags

Form G-45 Submissions
EMMA G45 Disclosure Service Message

XML Container	Data Tag	Required Indicator
Asset Class Allocation	Asset Class	R
	Allocation Percent	R
Underlying Investments	Name	R
	Allocation Percent	R
Investment Performance	Total annual return percent including Sales Charges	At least one field is required if the reporting period is Ending December 31.
	Total annual return percent excluding Sales Charges	
	Note	O
Benchmark Performance	Benchmark Name	If benchmark tag exists, then: R
	Benchmark Annual Return Percentages	If benchmark tag exists, then: R
Fees and Expenses	<Fee Name="EstimatedUnderlyingFundExpenses" > <Fee Name="ProgramManagementFee" > <Fee Name="StateFee" > <Fee Name="OtherMiscFees" > <Fee Name="AnnualDistributionServiceSalesFee" > <Fee Name="TotalAnnualAssetBasedFee" > <Fee Name="MaximumInitialSalesCharge" > <Fee Name="MaximumDeferredSalesCharge" > <Fee Name="AuditFee" > <Fee Name="AnnualAccountMaintenanceFee" > <Fee Name="BankAdministrationFee" >	R Program Management Fee is required. All other Fee's are AA.
	Note	O
Footnotes:		
R	Required for a complete data submission	
O	Optional	
AA	As Applicable	
N/A	Not Applicable – signifies that no data is to be provided for a data element because such data is not needed for such submission.	

XML Message Schemas

Detailed below are the relevant schemas applicable to Form G-45 XML submission messages.

G45DisclosureService_0.xsd

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
      xmlns:tns="https://emma.msrb.org/schemas/disclosuremessages/G45Disclosure" elementFormDefault="qualified"
      targetNamespace="https://emma.msrb.org/schemas/disclosuremessages/G45Disclosure">
 <xs:import schemaLocation="G45Disclosure_1.xsd" namespace="https://emma.msrb.org/schemas/G45DisclosureService" />
 <xs:element name="G45DisclosureServiceRequest">
  <xs:complexType>
   <xs:sequence>
    <xs:element xmlns:q1="https://emma.msrb.org/schemas/G45DisclosureService" minOccurs="0" maxOccurs="1"
          ref="q1:G45Message" />
   </xs:sequence>
  </xs:complexType>
 </xs:element>
</xs:schema>
```

G45DisclosureService_1.xsd

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:tns="https://emma.msrb.org/schemas/G45DisclosureService"
      elementFormDefault="qualified" targetNamespace="https://emma.msrb.org/schemas/G45DisclosureService">
 <xs:import schemaLocation="G45Disclosure_2.xsd"
       namespace="https://emma.msrb.org/schemas/disclosuremessages/G45Disclosure/types" />
 <xs:element xmlns:q1="https://emma.msrb.org/schemas/disclosuremessages/G45Disclosure/types" name="G45Message"
        type="q1:G45Message" />
</xs:schema>
```

G45DisclosureService_2.xsd

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
      xmlns:tns="https://emma.msrb.org/schemas/disclosuremessages/G45Disclosure/types"
      elementFormDefault="qualified"
      targetNamespace="https://emma.msrb.org/schemas/disclosuremessages/G45Disclosure/types">
 <xs:complexType name="G45Message">
  <xs:sequence>
   <xs:element minOccurs="1" maxOccurs="1" name="Submission" type="tns:SubmissionDetailsType" />
   <xs:element minOccurs="1" maxOccurs="1" name="Plan" type="tns:G45PlanDetailsType" />
   <xs:element minOccurs="1" maxOccurs="1" name="Submitter" type="tns:SubmitterDetailsType" />
  </xs:sequence>
 </xs:complexType>
 <xs:complexType name="SubmissionDetailsType">
  <xs:attribute name="SubmissionIdentifier" type="tns:Max15Text"/>
  <xs:attribute name="SubmissionStatus" type="tns:SubmissionStatusType" />
 </xs:complexType>
 <xs:simpleType name="SubmissionStatusType">
  <xs:restriction base="xs:string">
   <xs:enumeration value="Publish" />
   <xs:enumeration value="Test" />
  </xs:restriction>
 </xs:simpleType>
 <xs:complexType name="G45PlanDetailsType">
  <xs:sequence>
```

```
    <xs:element minOccurs="1" maxOccurs="1" name="ProgramManagerInformation"
type="tns:ManagementInformationType" />
    <xs:element minOccurs="1" maxOccurs="1" name="UnderwriterInformation"
type="tns:ArrayOfManagementInformationType" />
    <xs:element minOccurs="0" maxOccurs="1" name="PlanServiceAndTransactionFees" type="tns:G45FeesAndExpensesType"
/>
    <xs:element minOccurs="1" maxOccurs="1" name="InvestmentOptions" type="tns:ArrayOfG45OptionDetailsType" />
  </xs:sequence>
  <xs:attribute name="PlanReferenceID" type="tns:Max10Text" use="required"/>
  <xs:attribute name="ReportingYear" type="tns:YearType" use="required"/>
  <xs:attribute name="ReportingPeriod" type="tns:ReportingPeriodType" />
  <xs:attribute name="PlanInformationWebsite" type="tns:Max150Text" use="required"/>
  <xs:attribute name="MarketingChannel" type="tns:MarketingChannelType" />
          <xs:attribute name="TotalAggregateAssets" type="tns:MoneyType" />
          <xs:attribute name="TotalAggregateContributions" type="tns:MoneyType" />
          <xs:attribute name="TotalAggregateDistributions" type="tns:MoneyType" />
 </xs:complexType>
 <xs:complexType name="ManagementInformationType">
  <xs:attribute name="OrganizationName" type="tns:Max250Text" use="required"/>
  <xs:attribute name="ContactFirstName" type="tns:Max50Text" use="required"/>
  <xs:attribute name="ContactLastName" type="tns:Max50Text" use="required"/>
  <xs:attribute name="Address" type="tns:Max250Text" use="required"/>
  <xs:attribute name="City" type="tns:Max50Text" use="required"/>
  <xs:attribute name="State" type="tns:StateCode" use="required"/>
  <xs:attribute name="ZipCode" type="tns:ZipType" use="required"/>
  <xs:attribute name="PhoneNumber" type="tns:PhoneType" use="required"/>
  <xs:attribute name="PhoneExtension" type="tns:PhoneExtType" />
  <xs:attribute name="EMailAddress" type="tns:EmailType" use="required"/>
 </xs:complexType>
 <xs:complexType name="ArrayOfManagementInformationType">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="unbounded" name="Underwriter" type="tns:ManagementInformationType" />
  </xs:sequence>
 </xs:complexType>
 <xs:complexType name="ArrayOfG45OptionDetailsType">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="unbounded" name="Option" type="tns:G45OptionDetailsType" />
  </xs:sequence>
 </xs:complexType>
 <xs:complexType name="G45OptionDetailsType">
  <xs:sequence>
    <xs:element minOccurs="1" maxOccurs="1" name="AssetClassAllocation" type="tns:ArrayOfClassAllocationType" />
    <xs:element minOccurs="1" maxOccurs="1" name="UnderlyingInvestments" type="tns:ArrayOfUnderlyingInvestmentType"
/>
    <xs:element minOccurs="0" maxOccurs="1" name="InvestmentPerformance" type="tns:InvestmentPerformanceType" />
    <xs:element minOccurs="0" maxOccurs="1" name="BenchmarkPerformance" type="tns:ArrayOfBenchmarkType" />
    <xs:element minOccurs="1" maxOccurs="1" name="FeesAndExpenses" type="tns:G45FeesAndExpensesType" />
  </xs:sequence>
  <xs:attribute name="InvestmentOptionExternalID" type="tns:InvestmentOptionIdType" use="required" />
  <xs:attribute name="Name" type="tns:Max250Text" use="required" />
  <xs:attribute name="InceptionDate" type="tns:ISODate" />
  <xs:attribute name="InvestmentType" type="tns:InvestmentType" />
  <xs:attribute name="TotalAssets" type="tns:MoneyType" />
 <xs:attribute name="TotalContributions" type="tns:MoneyType" />
 <xs:attribute name="TotalDistributions" type="tns:MoneyType" />
 <xs:attribute name="ClosedToNewInvestorsFlag" type="tns:BooleanType" use="optional"/>
 <xs:attribute name="ClosedToCurrentInvestorsFlag" type="tns:BooleanType" use="optional"/>
 </xs:complexType>
```

```
 <xs:complexType name="G45FeesAndExpensesType">
  <xs:sequence>
  <xs:element minOccurs="0" maxOccurs="1" name="Fees" type="tns:ArrayOfG45Fees" />
  </xs:sequence>
  <xs:attribute name="Note" type="tns:Max3500Text" />
 </xs:complexType>
<xs:complexType name="ArrayOfG45Fees">
  <xs:sequence>
   <xs:element minOccurs="1" maxOccurs="unbounded" name="Fee" type="tns:G45Fee" />
  </xs:sequence>
</xs:complexType>
<xs:complexType name="G45Fee">
  <xs:sequence>
   <xs:element minOccurs="1" maxOccurs="1" name="FeeTypes" type="tns:ArrayOfG45FeeTypes" />
  </xs:sequence>
  <xs:attribute name="Name" type="xs:string" use="required"/>
</xs:complexType>
<xs:complexType name="ArrayOfG45FeeTypes">
  <xs:sequence>
   <xs:element minOccurs="0" maxOccurs="unbounded" name="FeeType" nillable="true" type="tns:G45FeeType" />
  </xs:sequence>
</xs:complexType>
<xs:complexType name="G45FeeType">
  <xs:attribute name="Name" type="xs:string" use="required"/>
  <xs:attribute name="Amount" type="xs:string" use="required"/>
</xs:complexType>
<xs:complexType name="ArrayOfClassAllocationType">
  <xs:sequence>
   <xs:element minOccurs="1" maxOccurs="unbounded" name="Allocation" type="tns:ClassAllocationType" />
  </xs:sequence>
</xs:complexType>
<xs:complexType name="ClassAllocationType">
  <xs:attribute name="AssetClass" type="tns:AssetClassType" />
  <xs:attribute name="AllocationPercent" type="tns:DecimalType" />
</xs:complexType>
<xs:simpleType name="AssetClassType">
  <xs:restriction base="xs:string">
   <xs:enumeration value="DomesticEquities" />
   <xs:enumeration value="InternationalEquities" />
   <xs:enumeration value="FixedIncomeProducts" />
   <xs:enumeration value="Commodities" />
   <xs:enumeration value="InsuranceProducts" />
   <xs:enumeration value="BankProducts" />
   <xs:enumeration value="CashOrCashEquivalents" />
   <xs:enumeration value="OtherProductTypes" />
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="ArrayOfUnderlyingInvestmentType">
  <xs:sequence>
   <xs:element minOccurs="1" maxOccurs="unbounded" name="Investment" type="tns:UnderlyingInvestmentType" />
  </xs:sequence>
</xs:complexType>
<xs:complexType name="UnderlyingInvestmentType">
  <xs:attribute name="Name" type="tns:Max250Text" use="required"/>
  <xs:attribute name="AllocationPercent" type="tns:DecimalType" />
</xs:complexType>
<xs:complexType name="InvestmentPerformanceType">
  <xs:sequence>
```

```
    <xs:element minOccurs="0" maxOccurs="1" name="IncludingSalesCharges" type="tns:AnnualReturnType" />
    <xs:element minOccurs="0" maxOccurs="1" name="ExcludingSalesCharges" type="tns:AnnualReturnType" />
  </xs:sequence>
  <xs:attribute name="Note" type="tns:Max3500Text" />
</xs:complexType>
<xs:complexType name="AnnualReturnType">
 <xs:attribute name="AnnualReturnPercent_YearToDate" type="tns:DecimalType" />
 <xs:attribute name="AnnualReturnPercent_1Year" type="tns:DecimalType" />
 <xs:attribute name="AnnualReturnPercent_3Year" type="tns:DecimalType" />
 <xs:attribute name="AnnualReturnPercent_5Year" type="tns:DecimalType" />
 <xs:attribute name="AnnualReturnPercent_10Year" type="tns:DecimalType" />
 <xs:attribute name="AnnualReturnPercent_SinceInception" type="tns:DecimalType" />
</xs:complexType>
<xs:complexType name="ArrayOfBenchmarkType">
 <xs:sequence>
   <xs:element minOccurs="1" maxOccurs="unbounded" name="Benchmark" type="tns:BenchmarkType" />
 </xs:sequence>
</xs:complexType>
<xs:complexType name="BenchmarkType">
 <xs:attribute name="BenchmarkName" type="tns:Max250Text" use="required"/>
 <xs:attribute name="BenchmarkAnnualReturnPercent_YearToDate" type="tns:DecimalType" />
 <xs:attribute name="BenchmarkAnnualReturnPercent_1Year" type="tns:DecimalType" />
 <xs:attribute name="BenchmarkAnnualReturnPercent_3Year" type="tns:DecimalType" />
 <xs:attribute name="BenchmarkAnnualReturnPercent_SinceInception" type="tns:DecimalType" />
</xs:complexType>

<xs:simpleType name="InvestmentType">
 <xs:restriction base="xs:string">
   <xs:enumeration value="AgeBasedOrYearOfEnrollment" />
   <xs:enumeration value="StaticOrFixed" />
   <xs:enumeration value="IndividualOrStandAlone" />
 </xs:restriction>
</xs:simpleType>
<xs:simpleType name="ReportingPeriodType">
 <xs:restriction base="xs:string">
   <xs:enumeration value="EndingJune30" />
   <xs:enumeration value="EndingDecember31" />
 </xs:restriction>
</xs:simpleType>
<xs:simpleType name="MarketingChannelType">
 <xs:restriction base="xs:string">
   <xs:enumeration value="AdvisorSold" />
   <xs:enumeration value="DirectSold" />
 </xs:restriction>
</xs:simpleType>
<xs:complexType name="SubmitterDetailsType">
 <xs:attribute name="ManagingMSRBID" type="tns:Max15Text" use="required" />
</xs:complexType>
<xs:simpleType name="StateCode">
 <xs:restriction base="xs:string">
   <xs:pattern value="[A-Z]{2,2}" />
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="ISODate">
 <xs:restriction base="xs:date" />
</xs:simpleType>
```

```xml
<xs:simpleType name="Max3500Text">
 <xs:restriction base="xs:string">
  <xs:minLength value="1" />
  <xs:maxLength value="3500" />
  <xs:pattern value=".*[^\s].*" />
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="Max250Text">
 <xs:restriction base="xs:string">
  <xs:minLength value="1" />
  <xs:maxLength value="250" />
  <xs:pattern value=".*[^\s].*" />
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="Max150Text">
 <xs:restriction base="xs:string">
  <xs:minLength value="1" />
  <xs:maxLength value="150" />
  <xs:pattern value=".*[^\s].*" />
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="Max140Text">
 <xs:restriction base="xs:string">
  <xs:minLength value="1" />
  <xs:maxLength value="140" />
  <xs:pattern value=".*[^\s].*" />
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="Max50Text">
 <xs:restriction base="xs:string">
  <xs:minLength value="1" />
  <xs:maxLength value="50" />
  <xs:pattern value=".*[^\s].*" />
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="Max15Text">
 <xs:restriction base="xs:string">
  <xs:minLength value="1" />
  <xs:maxLength value="15" />
  <xs:pattern value=".*[^\s].*" />
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="Max10Text">
 <xs:restriction base="xs:string">
  <xs:minLength value="1" />
  <xs:maxLength value="10" />
  <xs:pattern value=".*[^\s].*" />
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="YearType">
 <xs:restriction base="xs:integer">
```

```
        <xs:pattern value="[0-9]{4,4}"/>
    </xs:restriction>
</xs:simpleType>

<xs:simpleType name="InvestmentOptionIdType">
 <xs:restriction base="xs:string">
  <xs:minLength value="9" />
  <xs:maxLength value="9" />
  <xs:pattern value=".*[^\s].*" />
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="DecimalType">
 <xs:restriction base="xs:decimal">
  <xs:pattern value="^[+-]?[0-9]{1,3}(?:\.[0-9]{1,3})?$"/>
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="FeeDecimalType">
 <xs:restriction base="xs:decimal">
  <xs:pattern value="^[+-]?[0-9]{1,3}(?:\.[0-9]{1,5})?$"/>
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="MoneyType">
 <xs:restriction base="xs:decimal">
  <xs:pattern value="[0-9]{1,15}"/>
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="ZipType">
 <xs:restriction base="xs:string">
  <xs:maxLength value="15" />
  <xs:pattern value="^\d{5}(-\d{4})?$"/>
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="PhoneType">
 <xs:restriction base="xs:string">
  <xs:maxLength value="15" />
  <xs:pattern value="^\(?([0-9]{3})\)?[-. ]?([0-9]{3})[-. ]?([0-9]{4})$"/>
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="PhoneExtType">
 <xs:restriction base="xs:string">
  <xs:maxLength value="10" />
  <xs:pattern value="^[0-9]+$"/>
 </xs:restriction>
</xs:simpleType>

<xs:simpleType name="EmailType">
 <xs:restriction base="xs:string">
  <xs:maxLength value="140" />
  <xs:pattern value="^([a-zA-Z0-9_\-\.]+)@([a-zA-Z0-9_\-\.]+)\.([a-zA-Z]{2,5})$"/>
 </xs:restriction>
</xs:simpleType>
```

```
<xs:simpleType name="BooleanType">
 <xs:restriction base="xs:string">
  <xs:enumeration value="Yes"/>
  <xs:enumeration value="No"/>
 </xs:restriction>
 </xs:simpleType>
</xs:schema>
```

G45Disclosure_3.xsd

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:tns="https://emma.msrb.org/schemas/disclosuremessages"
      elementFormDefault="qualified" targetNamespace="https://emma.msrb.org/schemas/disclosuremessages">
 <xs:import schemaLocation="G45Disclosure_4.xsd"
        namespace="https://emma.msrb.org/schemas/disclosuremessages/types" />
 <xs:element name="DisclosureMessageResponse">
  <xs:complexType>
   <xs:sequence>
    <xs:element xmlns:q1="https://emma.msrb.org/schemas/disclosuremessages/types" minOccurs="0" maxOccurs="1"
          ref="q1:DisclosureResponseDetails" />
   </xs:sequence>
  </xs:complexType>
 </xs:element>
</xs:schema>
```

G45Disclosure_4.xsd

```
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
      xmlns:tns="https://emma.msrb.org/schemas/disclosuremessages/types" elementFormDefault="qualified"
      targetNamespace="https://emma.msrb.org/schemas/disclosuremessages/types">
 <xs:element name="DisclosureResponseDetails" type="tns:DisclosureMessageResponseType" />
 <xs:complexType name="DisclosureMessageResponseType">
  <xs:sequence>
   <xs:element minOccurs="0" maxOccurs="1" name="Submission" type="tns:SubmissionStructureType" />
   <xs:element minOccurs="0" maxOccurs="unbounded" name="Message" type="tns:MessageStructureType" />
  </xs:sequence>
 </xs:complexType>
 <xs:complexType name="SubmissionStructureType">
  <xs:attribute name="SubmissionID" type="xs:string" />
  <xs:attribute name="SubmissionState" type="tns:SubmissionProcessingStateType" />
  <xs:attribute name="SubmissionStatus" type="tns:SubmissionProcessingStatusType" use="required" />
 </xs:complexType>
 <xs:simpleType name="SubmissionProcessingStateType">
  <xs:restriction base="xs:string">
   <xs:enumeration value="Published" />
   <xs:enumeration value="InWorkspace" />
  </xs:restriction>
 </xs:simpleType>
 <xs:simpleType name="SubmissionProcessingStatusType">
  <xs:restriction base="xs:string">
   <xs:enumeration value="Added" />
   <xs:enumeration value="Updated" />
   <xs:enumeration value="Rejected" />
   <xs:enumeration value="Deleted" />
   <xs:enumeration value="Failure" />
  </xs:restriction>
```

```
    </xs:simpleType>
  <xs:complexType name="MessageStructureType">
    <xs:attribute name="MessageReturnCode" type="tns:MessageReturnCodeType" />
    <xs:attribute name="MessageContent" type="xs:string" />
  </xs:complexType>
  <xs:simpleType name="MessageReturnCodeType">
    <xs:restriction base="xs:string">
      <xs:enumeration value="Error" />
      <xs:enumeration value="Warning" />
      <xs:enumeration value="Information" />
    </xs:restriction>
  </xs:simpleType>
 </xs:schema>
```

Sample XML Header Trace Files

Data Message – Sample Header + Message Trace File

<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/" xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
<s:Header>
<o:Security s:mustUnderstand="1" xmlns:o="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"><u:Timestamp u:Id="_0"><u:Created>2008-08-21T19:58:44.296Z</u:Created><u:Expires>2008-08-21T20:03:44.296Z</u:Expires></u:Timestamp><o:UsernameToken u:Id="uuid-99a8d3c0-8044-4572-a189-2af1f3a246e8-1"><o:Username><!--Removed--></o:Username><o:Password><!--Removed--></o:Password></o:UsernameToken></o:Security>
<To s:mustUnderstand="1" xmlns="http://schemas.microsoft.com/ws/2005/05/addressing/none">https://temp-wrk/EmmaDisclosureService/DisclosureService.svc</To>
<Action s:mustUnderstand="1" xmlns="http://schemas.microsoft.com/ws/2005/05/addressing/none">https://emma.msrb.org/schemas/disclosureservice/IDisclosureService/OpenSubmission</Action>
</s:Header>
<s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
<?xml version="1.0" encoding="UTF-8"?>
<G45Message>
<Submission SubmissionStatus="Publish"
<Submission SubmissionIdentifier="SUBMISSION_ID_0001" SubmissionStatus="Publish" (← *NOTE:Include SubmissionIdentifrier for Submission Update/Modify after the submission ID has been returned upon open new submission*)
<Plan PlanReferenceID="HI-0002" ReportingYear="2014" ReportingPeriod="EndingDecember31"
        MarketingChannel="AdvisorSold" PlanInformationWebsite="http://www.Google2.com"
    TotalAggregateAssets="55000000000" TotalAggregateContributions="250000000" TotalAggregateDistributions="5000000"
        <ProgramManagerInformation OrganizationName="Top College Funds" ContactFirstName="Program"
ContactLastName="Manager" PhoneNumber="888-567-0540" Address="123 529 Road" City="Alex" State="VA"
ZipCode="22222-5555" EMailAddress="pm@2.com"/>
        <UnderwriterInformation
            <Underwriter OrganizationName="Underwriter_1" ContactFirstName="Under" ContactLastName="Writer1"
PhoneNumber="888-567-0540" Address="123 529 Road" City="Alex" State="VA" ZipCode="22222-5555"
EMailAddress="uw@1.com"/>
            <Underwriter OrganizationName="Underwriter_2" ContactFirstName="Under" ContactLastName="Writer2"
PhoneNumber="888-567-0540" Address="123 529 Road" City="Alex" State="VA" ZipCode="22222-5555"
EMailAddress="uw@2.com"/>
        </UnderwriterInformation>
        <PlanServiceAndTransactionFees Note="Enter note for Plan-level service and transactin fees."
            <Fees>
                <Fee Name="AccountOpeningFee" >
                    <FeeTypes>
                        <FeeType Name="General" Amount="0.41" />
                    </FeeTypes>
                </Fee>
                <Fee Name="InvestmentAdministrationFee" >
                    <FeeTypes>
                        <FeeType Name="General" Amount="0.25" />
                    </FeeTypes>
                </Fee>
                <Fee Name="CancellationWithdrawalFee" >
                    <FeeTypes>
                        <FeeType Name="General" Amount="0.1" />
                    </FeeTypes>
                </Fee>

```
<Fee Name="ChangeInAccountOwnerFee" >
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
        </FeeTypes>
</Fee>
<Fee Name="ChangeInInvestmentOptionTransferFee" >
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
        </FeeTypes>
</Fee>
<Fee Name="RolloverFee" >
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
        </FeeTypes>
</Fee>
<Fee Name="ReturnedExcessAggregateContributionsFee" >
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
        </FeeTypes>
</Fee>
<Fee Name="RejectedACHorEFTFee" >
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
        </FeeTypes>
</Fee>
<Fee Name="OvernightDeliveryFee" >
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
        </FeeTypes>
</Fee>
<Fee Name="InNetworkATMFees" >
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
        </FeeTypes>
</Fee>
<Fee Name="OutofNetworkATMFees" >
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
        </FeeTypes>
</Fee>
<Fee Name="ATMMiniStatementFee" >
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
        </FeeTypes>
</Fee>
<Fee Name="InternationalPOSATMTransactionFee">
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
        </FeeTypes>
</Fee>
<Fee Name="ForeignTransactionFee" >
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
        </FeeTypes>
</Fee>
<Fee Name="OverdraftFee" >
        <FeeTypes>
                <FeeType Name="General" Amount="0.25" />
```

```
                        </FeeTypes>
                </Fee>
                <Fee Name="CopyofCheckorStatementFee" >
                        <FeeTypes>
                                <FeeType Name="General" Amount="0.25" />
                        </FeeTypes>
                </Fee>
                <Fee Name="CopyofCheckImagesMailedWithMonthlyStatementFee" >
                        <FeeTypes>
                                <FeeType Name="General" Amount="0.25" />
                        </FeeTypes>
                </Fee>
                <Fee Name="CheckFee" >
                        <FeeTypes>
                                <FeeType Name="General" Amount="0.25" />
                        </FeeTypes>
                </Fee>
                <Fee Name="ReturnedCheckFee" >
                        <FeeTypes>
                                <FeeType Name="General" Amount="0.25" />
                        </FeeTypes>
                </Fee>
                <Fee Name="CheckingAccountOptionFee" >
                        <FeeTypes>
                                <FeeType Name="General" Amount="0.25" />
                        </FeeTypes>
                </Fee>
                <Fee Name="ReissueofDisbursementChecksFee" >
                        <FeeTypes>
                                <FeeType Name="General" Amount="0.25" />
                        </FeeTypes>
                </Fee>
                <Fee Name="StopPaymentFee" >
                        <FeeTypes>
                                <FeeType Name="General" Amount="0.25" />
                        </FeeTypes>
                </Fee>
                <Fee Name="DebitCardFee" >
                        <FeeTypes>
                                <FeeType Name="General" Amount="0.25" />
                        </FeeTypes>
                </Fee>
                <Fee Name="DebitCardReplacementFee" >
                        <FeeTypes>
                                <FeeType Name="General" Amount="0.25" />
                        </FeeTypes>
                </Fee>
                <Fee Name="OutgoingWireFee" >
                        <FeeTypes>
                                <FeeType Name="General" Amount="0.25" />
                        </FeeTypes>
                </Fee>
                <Fee Name="ExpeditedDebitCardRushDeliveryFee" >
                        <FeeTypes>
                                <FeeType Name="General" Amount="0.25" />
                        </FeeTypes>
                </Fee>
                <Fee Name="PaperFee" >
```

```
                              <FeeTypes>
                                    <FeeType Name="General" Amount="0.25" />
                              </FeeTypes>
                        </Fee>
                        <Fee Name="MiscellaneousFees" >
                              <FeeTypes>
                                    <FeeType Name="General" Amount="0.25" />
                              </FeeTypes>
                        </Fee>
                  </Fees>
            </PlanServiceAndTransactionFees>
            <InvestmentOptions

                  <Option InvestmentOptionExternalID="123456789" Name="Age-Based 0-6 Years Portfolio"
InceptionDate="2012-05-20" InvestmentType="AgeBasedOrYearOfEnrollment" TotalAssets="5000000"
TotalContributions="5000000" TotalDistributions="5000000"  ClosedToNewInvestorsFlag="Yes"
                                    ClosedToCurrentInvestorsFlag="No">
                        <AssetClassAllocation >
                              <Allocation AssetClass="DomesticEquities" AllocationPercent="12.5"/>
                              <Allocation AssetClass="InternationalEquities" AllocationPercent="12.5"/>
                              <Allocation AssetClass="FixedIncomeProducts" AllocationPercent="12.5"/>
                              <Allocation AssetClass="Commodities" AllocationPercent="12.5"/>
                              <Allocation AssetClass="InsuranceProducts" AllocationPercent="12.5"/>
                              <Allocation AssetClass="BankProducts" AllocationPercent="12.5"/>
                              <Allocation AssetClass="CashOrCashEquivalents" AllocationPercent="12.5"/>
                              <Allocation AssetClass="OtherProductTypes" AllocationPercent="12.5"/>
                        </AssetClassAllocation>
                        <UnderlyingInvestments>
                              <Investment Name="T. Rowe Price Large-Cap Growth Fund" AllocationPercent="17" />
                              <Investment Name="Artisan Value Fund Institutional Class" AllocationPercent="17" />
                              <Investment Name="William Blair Gowth Fund Class I" AllocationPercent="13" />
                              <Investment Name="Dodge &amp; Cox International Stock Fund"
AllocationPercent="25" />

                              <Investment Name="DFA U.S. Small Cap Portfolio International Class"
AllocationPercent="13" />

                              <Investment Name="Dreyfus Bond Market Index Fund BASIC Class"
AllocationPercent="10" />

                              <Investment Name="DFA Inflation-Protected Securities Portfolio Institutional Class"
AllocationPercent="0" />

                              <Investment Name="Invesco Liquid Assets Portfolio Institutional Class"
AllocationPercent="0" />
                        </UnderlyingInvestments>
                        <InvestmentPerformance Note="Investment performance note.">
                              <IncludingSalesCharges
                              AnnualReturnPercent_YearToDate="24.65"
                              AnnualReturnPercent_1Year="28.81"
                              AnnualReturnPercent_3Year="14.31"
                              AnnualReturnPercent_5Year="18.81"
                              AnnualReturnPercent_10Year="7.95"
                              AnnualReturnPercent_SinceInception="3.93" />
                              <ExcludingSalesCharges
                              AnnualReturnPercent_YearToDate="24.15"
                              AnnualReturnPercent_1Year="28.31"
                              AnnualReturnPercent_3Year="14.26"
                              AnnualReturnPercent_5Year="18.26"
                              AnnualReturnPercent_10Year="7.45"
                              AnnualReturnPercent_SinceInception="3.53" />
                        </InvestmentPerformance>
                        <BenchmarkPerformance>
```

```
                            <Benchmark BenchmarkName="Russell 1000 Growth Index"
BenchmarkAnnualReturnPercent_YearToDate="3.5" BenchmarkAnnualReturnPercent_1Year="4.5"
BenchmarkAnnualReturnPercent_3Year="4.5" BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                            <Benchmark BenchmarkName="Russell 1000 Value Index"
BenchmarkAnnualReturnPercent_YearToDate="3.5" BenchmarkAnnualReturnPercent_1Year="4.5"
BenchmarkAnnualReturnPercent_3Year="4.5" BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                            <Benchmark BenchmarkName="Jones U.S. Total Stock Market Index"
BenchmarkAnnualReturnPercent_YearToDate="3.5" BenchmarkAnnualReturnPercent_1Year="4.5"
BenchmarkAnnualReturnPercent_3Year="4.5" BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                            <Benchmark BenchmarkName="Russell 2000 Index"
BenchmarkAnnualReturnPercent_YearToDate="3.5" BenchmarkAnnualReturnPercent_1Year="4.5"
BenchmarkAnnualReturnPercent_3Year="4.5" BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                            <Benchmark BenchmarkName="MSCI All Country World ex-U.S. Index"
BenchmarkAnnualReturnPercent_YearToDate="3.5" BenchmarkAnnualReturnPercent_1Year="4.5"
BenchmarkAnnualReturnPercent_3Year="4.5" BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                            <Benchmark BenchmarkName="MSCI EAFE Index"
BenchmarkAnnualReturnPercent_YearToDate="3.5" BenchmarkAnnualReturnPercent_1Year="4.5"
BenchmarkAnnualReturnPercent_3Year="4.5" BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                            <Benchmark BenchmarkName="S&amp;P 500 Index"
BenchmarkAnnualReturnPercent_YearToDate="3.5" BenchmarkAnnualReturnPercent_1Year="4.5"
BenchmarkAnnualReturnPercent_3Year="4.5" BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                            <Benchmark BenchmarkName="All Country World ex-U.S. Index"
BenchmarkAnnualReturnPercent_YearToDate="3.5" BenchmarkAnnualReturnPercent_1Year="4.5"
BenchmarkAnnualReturnPercent_3Year="4.5" BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                            <Benchmark BenchmarkName="Barclays U.S. Aggregate Bond"
BenchmarkAnnualReturnPercent_YearToDate="3.5" BenchmarkAnnualReturnPercent_1Year="4.5"
BenchmarkAnnualReturnPercent_3Year="4.5" BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                            <Benchmark BenchmarkName="Barclays U.S. TIPS"
BenchmarkAnnualReturnPercent_YearToDate="3.5" BenchmarkAnnualReturnPercent_1Year="4.5"
BenchmarkAnnualReturnPercent_3Year="4.5" BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                            <Benchmark BenchmarkName="Citigroup 1-Month Treasury Bill Index"
BenchmarkAnnualReturnPercent_YearToDate="3.5" BenchmarkAnnualReturnPercent_1Year="4.5"
BenchmarkAnnualReturnPercent_3Year="4.5" BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                        </BenchmarkPerformance>
                        <FeesAndExpenses Note="Enter notes pertaining to Investment Option Fees and Expenses.">
                            <Fees>
                                <Fee Name="EstimatedUnderlyingFundExpenses" >
                                    <FeeTypes>
                                            <FeeType Name="General" Amount="0.25" />
                                    </FeeTypes>
                                </Fee>
                                <Fee Name="ProgramManagementFee" >
                                    <FeeTypes>
                                            <FeeType Name="General" Amount="0.25" />
                                    </FeeTypes>
                                </Fee>
                                <Fee Name="StateFee" >
                                    <FeeTypes>
                                            <FeeType Name="General" Amount="0.25" />
                                    </FeeTypes>
                                </Fee>
                                <Fee Name="OtherMiscFees" >
                                    <FeeTypes>
                                            <FeeType Name="General" Amount="0.25" />
                                    </FeeTypes>
                                </Fee>
                                <Fee Name="AnnualDistributionServiceSalesFee" >
                                    <FeeTypes>
```

```
                                          <FeeType Name="General" Amount="0.25" />
                                  </FeeTypes>
                          </Fee>
                          <Fee Name="TotalAnnualAssetBasedFee" >
                                  <FeeTypes>
                                          <FeeType Name="General" Amount="0.259" />
                                  </FeeTypes>
                          </Fee>
                          <Fee Name="MaximumInitialSalesCharge" >
                                  <FeeTypes>
                                          <FeeType Name="General" Amount="0.25" />
                                  </FeeTypes>
                          </Fee>
                          <Fee Name="MaximumDeferredSalesCharge" >
                                  <FeeTypes>
                                          <FeeType Name="General" Amount="0.25" />
                                  </FeeTypes>
                          </Fee>
                          <Fee Name="AuditFee" >
                                  <FeeTypes>
                                          <FeeType Name="General" Amount="0.25" />
                                  </FeeTypes>
                          </Fee>
                          <Fee Name="AnnualAccountMaintenanceFee" >
                                  <FeeTypes>
                                          <FeeType Name="InState" Amount="5" />
                                          <FeeType Name="OutOfState" Amount="10" />
                                  </FeeTypes>
                          </Fee>
                          <Fee Name="BankAdministrationFee" >
                                  <FeeTypes>
                                          <FeeType Name="General" Amount="10" />
                                  </FeeTypes>
                          </Fee>
                      </Fees>
                  </FeesAndExpenses>
              </Option>
          </InvestmentOptions>
  </Plan>
  <Submitter ManagingMSRBID="X099999"/>
  </G45Message>
  </s:Body>
  </s:Envelope>
```

Message Validation

Figure 3: Validation Response Trace

As submission messages are processed by EMMA, the message content will be verified relative to business rules of expected data relationships. Exception response messages will be returned to the submitter system when certain types of conditions exist with respect to the data submitted. Response messages are classified as Error or Information depending on the nature and severity of the exception as follows:

- An error message indicates termination of message processing with failure of the intended action. The submitter should take appropriate corrective action and re-submit, as appropriate.
- An information message indicates certain action taken by the EMMA platform that does not materially affect completeness of the submission, but of which the submitter should be aware.

An abstract representation of a Response Message, shown below, will be returned to the Submitter System with the Response Message Content, defined in the table below, contained in the body of the message.

Response Message

(SOAP Envelope)

(Header)

WebServices Protocol Support

(Body)

SubmissionID
SubmissionStatus (Accepted, Rejected, Updated, Added)
MessageReturnCode (Error, Information])
MessageContent [Data Tag, Description])
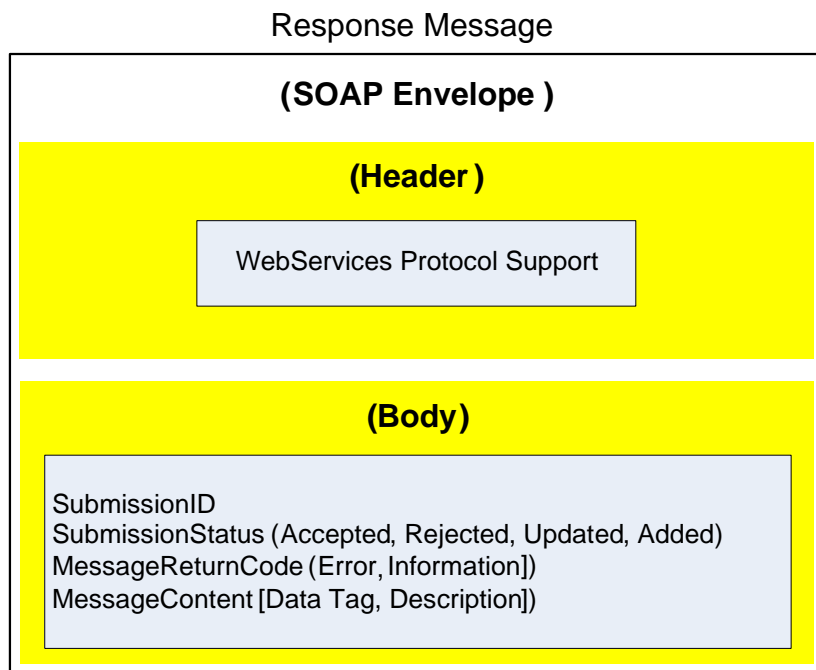
Below is a sample Response Message trace where a submission event has been confirmed as added successfully. This sample is intended to show the general structure of response messages.

Response Message – Sample Trace File

```
<s:Envelope xmlns:s="http://schemas.xmlsoap.org/soap/envelope/">
 <s:Header>
        <Action s:mustUnderstand="1"
xmlns="http://schemas.microsoft.com/ws/2005/05/addressing/none">https://emma.msrb.org/schemas/
disclosureservice/IDisclosureService/OpenSubmissionResponse
        </Action>
 </s:Header>
 <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
        <DisclosureMessageResponse xmlns="https://emma.msrb.org/schemas/disclosuremessages">
         <DisclosureResponseDetails xmlns="https://emma.msrb.org/schemas/disclosureservice">
                <Submission SubmissionID="EA1734" SubmissionStatus="Added"
                xmlns="https://emma.msrb.org/schemas/disclosuremessages/types">
                </Submission>
                <Message MessageReturnCode="Information" MessageContent="Advance refunding
submission added."
                xmlns="https://emma.msrb.org/schemas/disclosuremessages/types">
                </Message>
         </DisclosureResponseDetails>
        </DisclosureMessageResponse>
 </s:Body>
</s:Envelope>
```

Message Error Responses

Table 3: Data Message Error/Information Messages

XML Block	Data Tag	Message Return Code	Response Message Content
XML Submission Validation - Response Messages **Form G-45 (Data Message)**			
Submission	Submission Identifier	Error	Required Field – Submission Identifier is a required field for updating existing submissions
		Information	Unnecessary Data Element - Submission should not be provided on an OPEN Submission.
		Error	Data Validation - Submission with id '<Submission ID>' does not exist for Plan Reference ID: <Plan Reference ID> and Managing MSRB ID: <MSRB ID>.
	Submission Status	Error	Required Field – Submission Status is a required field.
Submitter	Managing MSRBID	Error	Data Validation - You are not authorized to submit on behalf of the party indicated by the Managing MSRB ID.
Plan	Plan Reference ID	Error	Data Validation-Invalid Plan ID
	Reporting Year	Error	Data Validation - Invalid Reporting Year.
	Reporting Period	Error	Data Validation - Invalid Reporting Period.
		Error	Form G-45 submission already exists for the specified reporting period.
		Error	Required Field – Reporting Period is a required field.
	Plan Information Website	Error	Data Validation - Plan information website URL should start with 'http://' or 'https://'.

XML Block	Data Tag	Message Return Code	Response Message Content
XML Submission Validation - Response Messages **Form G-45 (Data Message)**			
		Error	Data Validation - Invalid Plan Information Website.
	State	Error	Data Validation - Invalid State in Program Manager Information.
		Error	Data Validation - Invalid State in Underwriter Information.
	Marketing Channel	Error	Required Field – Marketing Channel is a required field.
	Total Aggregate Assets	Error	Required Field – Total Aggregate Assets is a required field.
	Total Aggregate Contributions	Error	Required Field – Total Aggregate Contributions is a required field.
	Total Aggregate Distributions	Error	Required Field – Total Aggregate Distributions is a required field.
	<Fees> <Fee Name="UserEnteredFeeName" <Fee Name="AccountOpeningFee" >	Error	Data Validation - FeeName: "<<feename>>" is duplicated for Plan: <<planreferenceid>>.

XML Submission Validation - Response Messages

Form G-45 (Data Message)

XML Block	Data Tag	Message Return Code	Response Message Content
Plan Service and Transaction Fees	<Fee Name="InvestmentAdministrationFee" > <Fee Name="CancellationWithdrawalFee" > <Fee Name="ChangeInAccountOwnerFee" > <Fee Name="ChangeInInvestmentOptionTransferFee" > <Fee Name="RolloverFee" > <Fee Name="ReturnedExcessAggregateContributionsFee" > <Fee Name="RejectedACHorEFTFee" > <Fee Name="OvernightDeliveryFee" > <Fee Name="InNetworkATMFees" > <Fee Name="OutofNetworkATMFees" > <Fee Name="ATMMiniStatementFee" > <Fee Name="InternationalPOSATMTransactionFee"> <Fee Name="ForeignTransactionFee" > <Fee Name="OverdraftFee" > <Fee Name="CopyofCheckorStatementFee" > <Fee Name="CopyofCheckImagesMailedWithMonthlyStatementFee" > <Fee Name="CheckFee" > <Fee Name="ReturnedCheckFee" > <Fee Name="CheckingAccountOptionFee" > <Fee Name="ReissueofDisbursementChecksFee" > <Fee Name="StopPaymentFee" > <Fee Name="DebitCardFee" > <Fee Name="DebitCardReplacementFee" > <Fee Name="OutgoingWireFee" > <Fee Name="ExpeditedDebitCardRushDeliveryFee" > <Fee Name="PaperFee" > <Fee Name="MiscellaneousFees" >	Error	Data Validation - FeeName: "<<feename>>" is invalid for Plan: <<planreferenceid>>.
	<Fees> <Fee> <FeeTypes> <FeeType Name="General" …>	Error	Data Validation - FeeType: "<<feetype>>" for FeeName: "<<feename>>" is duplicated for Plan: <<planreferenceid>>.

XML Block	Data Tag	Message Return Code	Response Message Content
	```<Fees> <Fee Name="<Fee Name>" > <FeeTypes> <FeeType Name="General" … /> </FeeTypes> </Fee></Fees>```	Error	Data Validation - FeeType: "<<feetype>>" for FeeName: "<<feename>>" is invalid for Plan: <<planreferenceid>>.
	Note	-	-
Investment Options	Investment Option External ID	Error	Data Validation - Duplicate Investment Option IDs exist for <Investment Option ID>.
		Error	Data Validation - Space is not allowed in Investment Option ID: <Investment Option ID>.
	Inception Date	Error	Required Field – Inception Date is a required field for Investment Option ID: <Investment Option ID>.
		Error	Data Validation - Inception Date cannot be in future for Investment Option ID: <Investment Option ID>.
	Investment Type	Error	Required Field – Investment Type is a required field for Investment Option ID: <Investment Option ID>.
	Total Assets	Error	Required Field – Total Assets is a required field for Investment Option ID: <Investment Option ID>.
	Total Contributions	Error	Required Field – Total Contributions is a required field for Investment Option ID: <Investment Option ID>.
	Total Distributions	Error	Required Field – Total Distributions is a required field for Investment Option ID: <Investment Option ID>.

XML Submission Validation - Response Messages

Form G-45 (Data Message)

XML Block	Data Tag	Message Return Code	Response Message Content
Asset Class Allocation	Asset Class	Error	Required Field – Asset Class Type is a required field for Investment Option ID: <Investment Option ID>.
	Allocation Percent	Error	Required Field – Asset Class Allocation Percent is a required field for Investment Option ID: <Investment Option ID>.
Underlying Investments	Allocation Percent	Error	Required Field – Underlying Investment Allocation Percent is a required field for Investment Option ID: <Investment Option ID>.
Investment Performance	Including Sales Charges (Annual Return Percent) Excluding Sales Charges (Annual Return Percent)	Error	Required Field - At least one field is required in Investment Performance for Investment Option ID: <Investment Option ID>.
	Annual Return Percent 3 Year	Error	AnnualReturnPercent_3Year is no longer valid.
	Note	-	-
Benchmark Performance	Benchmark Annual Return Percent YTD	Error	Required Field – Benchmark YTD annual return percent is a required field for Investment Option ID: <Investment Option ID>.
	Benchmark Annual Return Percent 1 Year	Error	Required Field – Benchmark one-year annual return percent is a required field for Investment Option ID: <Investment Option ID>.
	Benchmark Annual Return Percent 3 Year	Error	BenchmarkAnnualReturnPercent_3Year is no longer valid.
	Benchmark Annual Return Percent Since Inception	Error	Required Field – Benchmark annual return percent since inception is a required field for Investment Option ID: <Investment Option ID>.
Fees and Expenses	<Fees> <Fee Name="UserEnteredFeeName" <Fee Name="EstimatedUnderlyingFundExpenses" > <Fee Name="ProgramManagementFee" >	Error	Required Field- At least one fee is required in Fees and Expenses for Investment Option ID: <Investment Option ID>

	XML Submission Validation - Response Messages Form G-45 (Data Message)		
XML Block	**Data Tag**	**Message Return Code**	**Response Message Content**
	\<Fee Name="StateFee" \> \<Fee Name="OtherMiscFees" \> \<Fee Name="AnnualDistributionServiceSalesFee" \> \<Fee Name="TotalAnnualAssetBasedFee" \> \<Fee Name="MaximumInitialSalesCharge" \> \<Fee Name="MaximumDeferredSalesCharge" \> \<Fee Name="AuditFee" \> \<Fee Name="AnnualAccountMaintenanceFee" \> \<Fee Name="BankAdministrationFee" \>	Error	Data Validation - FeeName: "\<\<feename\>\>" is duplicated for Investment Option Id: \<\< investmentoptionid \>\>.
		Error	Data Validation - FeeName: "\<\<feename\>\>" is invalid for Investment Option Id: \<\<investmentoptionid\>\>.

	\<Fees\>
	 \<Fee\>
	  \<FeeTypes\>
	   \<FeeType Name="General" ...\>
	
	(for all Fee Names;)
	
	Except for Fee Name =(**AnnualAccountMaintenanceFee)**:
	
	\<Fees\>
	   \<Fee Name="**AnnualAccountMaintenanceFee**" \>
	     \<FeeTypes\>
	       \<FeeType Name="**InState**" ... /\>
	       \<FeeType Name="**OutOfState**" ... /\>
	     \</FeeTypes\>
	   \</Fee\>
	\</Fees\>
		Error	Data Validation - FeeType: "\<\<feetype\>\>" for FeeName: "\<\<feename\>\>" is duplicated for Investment Option Id: \<\< investmentoptionid \>\>.

		Error	Data Validation - FeeType: "\<\<feetype\>\>" for FeeName: "\<\<feename\>\>" is invalid for Investment Option Id: \<\< investmentoptionid \>\>.
	Note	-	-

Form G-45 Sample XML Message

Data Message

```xml
<?xml version="1.0" encoding="UTF-8"?>
<G45Message>
<Submission  SubmissionStatus="Publish"
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    TotalAggregateAssets="55000000000" TotalAggregateContributions="250000000" TotalAggregateDistributions="5000000"
        <ProgramManagerInformation OrganizationName="Top College Funds" ContactFirstName="Program"
ContactLastName="Manager" PhoneNumber="888-567-0540" Address="123 529 Road" City="Alex" State="VA"
ZipCode="22222-5555" EMailAddress="pm@2.com"/>
        <UnderwriterInformation
                <Underwriter OrganizationName="Underwriter_1" ContactFirstName="Under" ContactLastName="Writer1"
PhoneNumber="888-567-0540" Address="123 529 Road" City="Alex" State="VA" ZipCode="22222-5555"
EMailAddress="uw@1.com"/>
                <Underwriter OrganizationName="Underwriter_2" ContactFirstName="Under" ContactLastName="Writer2"
PhoneNumber="888-567-0540" Address="123 529 Road" City="Alex" State="VA" ZipCode="22222-5555"
EMailAddress="uw@2.com"/>
        </UnderwriterInformation>
        <PlanServiceAndTransactionFees Note="Enter note for Plan-level service and transaction fees."
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                        </Fee>
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                        </Fee>
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                        </Fee>
                        <Fee Name="ChangeInInvestmentOptionTransferFee" >
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                                </FeeTypes>
                        </Fee>
                        <Fee Name="RolloverFee" >
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                        </Fee>
                        <Fee Name="ReturnedExcessAggregateContributionsFee" >
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                                        <FeeType Name="General" Amount="0.25" />
                                </FeeTypes>
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```
		</Fee>
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			</FeeTypes>
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		</Fee>
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		</Fee>
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		</Fee>
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                        </Fee>
                        <Fee Name="ExpeditedDebitCardRushDeliveryFee" >
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                        </Fee>
                        <Fee Name="PaperFee" >
                                <FeeTypes>
                                        <FeeType Name="General" Amount="0.25" />
                                </FeeTypes>
                        </Fee>
                        <Fee Name="MiscellaneousFees" >
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                                        <FeeType Name="General" Amount="0.25" />
                                </FeeTypes>
                        </Fee>
                </Fees>
        </PlanServiceAndTransactionFees>
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InceptionDate="2012-05-20" InvestmentType="AgeBasedOrYearOfEnrollment" TotalAssets="5000000"
TotalContributions="5000000" TotalDistributions="5000000" ClosedToCurrentInvestorsFlag="Yes"
ClosedToNewInvestorsFlag="No">
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```

```
                                <Allocation AssetClass="FixedIncomeProducts" AllocationPercent="12.5"/>
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                                <Investment Name="William Blair Gowth Fund Class I" AllocationPercent="13" />
                                <Investment Name="Dodge &amp; Cox International Stock Fund"
AllocationPercent="25" />
                                <Investment Name="DFA U.S. Small Cap Portfolio International Class"
AllocationPercent="13" />
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AllocationPercent="10" />
                                <Investment Name="DFA Inflation-Protected Securities Portfolio Institutional Class"
AllocationPercent="0" />
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AllocationPercent="0" />
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                                AnnualReturnPercent_1Year="28.81"
                                AnnualReturnPercent_3Year="14.31"
                                AnnualReturnPercent_5Year="18.81"
                                AnnualReturnPercent_10Year="7.95"
                                AnnualReturnPercent_SinceInception="3.93" />
                                <ExcludingSalesCharges
                                AnnualReturnPercent_YearToDate="24.15"
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                                AnnualReturnPercent_3Year="14.26"
                                AnnualReturnPercent_5Year="18.26"
                                AnnualReturnPercent_10Year="7.45"
                                AnnualReturnPercent_SinceInception="3.53" />
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BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                                <Benchmark BenchmarkName="Russell 1000 Value Index"
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BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                                <Benchmark BenchmarkName="Jones U.S. Total Stock Market Index"
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BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                                <Benchmark BenchmarkName="Russell 2000 Index"
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BenchmarkAnnualReturnPercent_SinceInception="4.5" />
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BenchmarkAnnualReturnPercent_SinceInception="4.5" />
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BenchmarkAnnualReturnPercent_SinceInception="4.5" />
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```xml
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BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                        <Benchmark BenchmarkName="Barclays U.S. Aggregate Bond"
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BenchmarkAnnualReturnPercent_SinceInception="4.5" />
                        <Benchmark BenchmarkName="Barclays U.S. TIPS"
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BenchmarkAnnualReturnPercent_SinceInception="4.5" />
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BenchmarkAnnualReturnPercent_SinceInception="4.5" />
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                            </Fee>
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                            </Fee>
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                                    <FeeType Name="General" Amount="0.25" />
                                </FeeTypes>
                            </Fee>
                            <Fee Name="OtherMiscFees" >
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                            </Fee>
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                            </Fee>
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                                    <FeeType Name="General" Amount="0.25" />
                                </FeeTypes>
                            </Fee>
                            <Fee Name="MaximumDeferredSalesCharge" >
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                                </FeeTypes>
                            </Fee>
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                                <Fee Name="AuditFee" >
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                                </Fee>
                                <Fee Name="BankAdministrationFee" >
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                                                <FeeType Name="General" Amount="10" />
                                        </FeeTypes>
                                </Fee>
                        </Fees>
                </FeesAndExpenses>
        </Option>
    </InvestmentOptions>
</Plan>
<Submitter ManagingMSRBID="X099999"/>
</G45Message>
```

Appendix – 529 Savings Plans/ABLE Programs

Form G-45 consists of a collection of data elements provided in electronic format to the MSRB's EMMA system regarding 529 savings plans and ABLE programs pursuant to Rule G-45. Below is a complete listing of all data elements and their descriptions.

	Data Elements	Description
	Underwriter Organization Name and MSRB ID	Submitting underwriter organization name and MSRB-issued registration number.
Program Descriptive Information	State	The state that offers the 529 savings plans or ABLE programs.
	Program ID	The MSRB issued and published Program ID. Click here for a list of Program IDs.
	Reporting Year	The calendar year for which the submission applies.
	Reporting Period	The reporting period associated with the submission: • Semi-annual, ending June 30 • Annual, ending December 31.
	Program Website Address	A 529 savings plan or an ABLE program website address. See College Savings Plan Network Disclosure Principles Statement No.6).
	Marketing Channel	The manner by which municipal fund securities that are not local government investment pools are sold to the public, such as through a broker, dealer or municipal securities dealer that has a selling agreement with an underwriter (commonly known as "advisor-sold") or through a website, toll-free telephone number or other direct means (commonly known as "direct-sold").
Program Manager Information	Organization Name	Legal name of program manager. A program manager is an entity that enters into a contract directly with the trustee of the Program to provide, directly or indirectly through service providers, investment advisory and management services, administration and accounting functions, and/or marketing and other services related to the day-to-day operation of the Program.
	Primary Contact First Name	First name of the primary contact of the program manager.
	Primary Contact Last Name	Last name of the primary contact of the program manager.
	Address	Street address or post office box of the program manager.
	City	Address city of the program manager.
	State	Address state of the program manager.
	Zip Code	Address zip code of the program manager.
	Phone Number	Phone number of the primary contact of the program manager.
	Phone Extension	Phone number of the primary contact of the program manager.
	Email Address	Email address of the primary contact of the program manager.
	Organization Name	Legal name of the underwriter(s). "Underwriter" shall mean a broker, dealer or municipal securities dealer that is an underwriter, as defined in Securities Exchange Act Rule 15c2-12(f)(8), of municipal fund securities that are not local government investment pools.
	Primary Contact First Name	First name of the primary contact of the underwriter(s).
	Primary Contact Last Name	Last name of the primary contact of the underwriter(s).

	Data Elements	Description
Underwriter(s) Information	Address	Street address or post office box of the underwriter(s).
	City	Address city of the underwriter(s).
	State	Address state of the underwriter(s).
	Zip Code	Address zip code of the underwriter(s).
	Phone Number	Phone number of the primary contact of the underwriter(s).
	Phone Extension	Phone number extension of the primary contact of the underwriter(s).
	Email Address	Email address of the primary contact of the underwriter(s).
Aggregate Program Information	Total Aggregate Assets	Total Program assets, as of the end of the most recent semi-annual reporting period.
	Total Aggregate Contributions	Total aggregate of all deposits into the Program for the most recent semi-annual reporting period, but shall not include reallocations.*
	Total Aggregate Distributions	Total aggregate of all withdrawals of funds from the Program for the most recent semi-annual reporting period, but shall not include reallocations.*
Plan Transaction and Service Fees	**Plan Service and Transaction Fees**	
	Account Opening Fee	The account opening fee in effect as of the most recent semi-annual reporting period.
	Investment Administration Fee	The investment administration fee in effect as of the most recent semi-annual reporting period.
	Cancellation/Withdrawal Fee	The cancellation or withdrawal fee in effect as of the most recent semi-annual reporting period.
	Change in Account Owner Fee	The change in account owner fee in effect as of the most recent semi-annual reporting period.
	Change in Investment Option/Transfer Fee	The change in investment option or transfer fee in effect as of the most recent semi-annual reporting period.
	Rollover Fee	The rollover fee in effect as of the most recent semi-annual reporting period.
	Returned Excess Aggregate Contributions Fee	The returned excess aggregate contribution fee in effect as of the most recent semi-annual reporting period.
	Rejected ACH or EFT Fee	The rejected ACH (automated clearing house) *or* EFT *(Electronic funds transfer) transaction fee in effect as of the most recent semi-annual reporting period.*
	Overnight Delivery Fee	The overnight delivery fee in effect as of the most recent semi-annual reporting period.
	In-Network ATM Fees	The in-network ATM fee in effect as of the most recent semi-annual reporting period.
	Out-of-Network ATM Fees	The out-of-network ATM fee in effect as of the most recent semi-annual reporting period.

	Data Elements	Description
Plan Transaction and Service Fees	ATM Mini Statement Fee	The ATM mini statement fee in effect as of the most recent semi-annual reporting period.
	International POS/ATM Transaction Fee	The international POS/ATM transaction fee in effect as of the most recent semi-annual reporting period.
	Foreign Transaction Fee	The foreign transaction fee in effect as of the most recent semi-annual reporting period.
	Overdraft Fee	The overdraft fee in effect as of the most recent semi-annual reporting period.
	Copy of Check or Statement Fee (per request)	The fee for a copy of a check or statement in effect as of the most recent semi-annual reporting period.
	Copy of Check Images Mailed with Monthly Statement Fee	The fee for copy of check images mailed with monthly statement fee in effect as of the most recent semi-annual reporting period.
	Check Fee	The check fee in effect as of the most recent semi-annual reporting period.
	Returned Check Fee	The returned check fee in effect as of the most recent semi-annual reporting period.
	Checking Account Option Fee	The checking account option fee in effect as of the most recent semi-annual reporting period.
	Re-Issue of Disbursement Checks Fee	The re-issue of disbursement check fee in effect as of the most recent semi-annual reporting period.
	Stop Payment Fee	The stop payment fee in effect as of the most recent semi-annual reporting period.
	Debit Card Fee	The debit card fee in effect as of the most recent semi-annual reporting period.
	Debit Card Replacement Fee	The debit card replacement fee in effect as of the most recent semi-annual reporting period.
	Outgoing Wire Fee	The outgoing wire fee in effect as of the most recent semi-annual reporting period.
	Expedited Debit Card Rush Delivery Fee	The expedited debit card rush delivery fee in effect as of the most recent semi-annual reporting period.
Plan Transaction and Service Fees	Paper Fee	The paper fee in effect as of the most recent semi-annual reporting period.
	Miscellaneous Fee	The miscellaneous fee in effect as of the most recent semi-annual reporting period.

	Data Elements	Description
	Note	As noted in College Savings Plan Network Disclosure Principles Statement No.6, submitters are also encouraged to add exProgramatory footnotes to the fee and cost tables in order to make such tables clear and understandable.
Investment Option Information	Investment Option ID	Unique, alphanumeric investment option identifier assigned by the submitter.
	Investment Option Name	Indicates the name of the investment option as described in a Program disclosure document or supplement thereto, available to account owners in a Program to which funds may be allocated.
	Investment Option Inception Date	Inception date of investment option.
	Investment Option Type	Investment option types are: age based or year of enrollment/static or fixed/ individual or standalone (as noted in College Savings Plan Network Disclosure Principles Statement No.6).
	Total Assets	Total assets in each investment option as of the end of the most recent semi-annual period.
	Total Contributions	Total of all deposits into each investment option for the most recent semi-annual reporting period, but shall not include reallocations.*
Investment Option Information	Total Distributions	Total of all withdrawals of funds from each investment option for the most recent semi-annual reporting period, but shall not include reallocations.*
	Closed to New Investors	
	Closed to Current Investors	
	Asset Class(es)	
	Asset Class	Asset classes in each investment option, including domestic equities, international equities, fixed income products, commodities, insurance products, bank products, cash or cash equivalents or other product types.
	Allocation Percentage	Actual asset class allocation of each investment option as of the end of the most recent semi-annual period.
	Underlying Investment(s)	
	Underlying Investment Name	The name of a registered investment company, unit investment trust, or other investment product in which an investment option invests.
	Allocation Percentage	The percentage allocation of each underlying investment in each investment option as of the end of the most recent semi-annual period.
	Investment Performance ⓘ Required for annual reporting period ending December 31.	
	Total Returns Including Sales Charges	Total returns of the investment option expressed as a percentage, net of all generally applicable fees and costs, including sales charges, for the most recent calendar year. Specified periods include: year-to-date, one-year, annualized five-year, annualized ten-year and annualized since inception.

	Data Elements	Description
Investment Option Information	Total Returns Excluding Sales Charges	Total returns of the investment option expressed as a percentage, net of all generally applicable fees and costs, excluding sales charges, for the most recent calendar year. Specified periods include: year-to-date, one-year, annualized five-year, annualized ten-year, annualized since inception.
	Note	As noted in College Savings Plan Network Disclosure Principles Statement No.6, in order to make the table clear and understandable, submitters are encouraged to add exProgramatory text or footnotes to each performance table, explaining principles followed and assumptions made by the State Issuer in preparing the table. Finally, submitters are encouraged to add additional information that, in their judgment, enhances a user's understanding of the direct-sold or advisor-sold savings Program performance, as applicable.
	Benchmark Performance (If any)	
	ⓘ Required for annual reporting period ending December 31.	
	Benchmark Name	The name of the established index or a blended index that combines the benchmarks for each of the underlying mutual funds or other investments held by an investment option during the relevant time period weighted according to the allocations of those underlying mutual funds or other investments and adjusted to reflect any changes in the allocations and the benchmarks during the relevant time period.
	Benchmark Return Percent	Total returns of the benchmark for each investment option for the most recent calendar year. Specified periods include: year-to-date, one-year, annualized since inception.
	Fees and Expenses	
	Estimated Underlying Fund Expenses	As noted in College Savings Plan Network Disclosure Principles Statement No.6, estimated underlying fund expenses for registered mutual funds, in the absence of a change that would materially affect information, is based on the most recent fiscal year reported upon in the applicable fund's most recent prospectus. For investment options invested in multiple registered mutual funds, estimated underlying fund expenses is based on a weighted average of each fund's expense ratio, in accordance with the investment option's asset allocation among the applicable funds as of the reporting period.
	Program Management Fee	Program management fee in effect as of the most recent semi-annual reporting period. Ascribe as noted in College Savings Plan Network Disclosure Principles Statement No.6. Form G-45, under the Investment Option information subsection "Program Management Fee", requires that an underwriter report the amount of the program management fee assessed by the 529 savings plan.
	State Fee	State fee in effect as of the most recent semi-annual reporting period. Ascribe as noted in College Savings Plan Network Disclosure Principles Statement No.6.
	Miscellaneous Fees	Miscellaneous fee in effect as of the most recent semi-annual reporting period. Ascribe as noted in College Savings Plan Network Disclosure Principles Statement No.6.
	Annual Distribution/ Service/ Sales Fee	Annual distribution and/or service and/or sales fee in effect as of the most recent semi-annual reporting period. Ascribe as noted in College Savings Plan Network Disclosure Principles Statement No.6.

	Data Elements	Description
Investment Option Information	Total Annual Asset Based Fees	This total is assessed against assets over the course of the year and does not include sales charges or account maintenance fees in effect as of the most recent semi-annual reporting period. Ascribe as noted in College Savings Plan Network Disclosure Principles Statement No.6.
	Maximum Deferred Sales Charge	Maximum deferred sales charge in effect as of the most recent semi-annual reporting period. Ascribe as noted in College Savings Plan Network Disclosure Principles Statement No.6.
	Maximum Initial Sales Charge	Maximum initial sales charge in effect as of the most recent semi-annual reporting period. Ascribe as noted in College Savings Plan Network Disclosure Principles Statement No.6.
	Audit Fee	Audit fee in effect as of the most recent semi-annual reporting period.
	Annual Account Maintenance Fee	Annual account maintenance fee that is separately imposed on investors in connection with the maintenance of their accounts in effect as of the most recent semi-annual reporting period, as noted in College Savings Plan Network Disclosure Principles Statement No.6.
	Bank Administration Fee	Bank administration fee in effect as of the most recent semi-annual reporting period.
	Note	As noted in College Savings Plan Network Disclosure Principles Statement No.6, submitters are also encouraged to add exProgramatory footnotes to the fee and cost tables in order to make such tables clear and understandable.

* The term "reallocation" shall mean the withdrawal of funds from one investment option in a Program and deposit of the same funds into one or more investment options in the same Program, such as where an account owner selects a different investment option or funds are moved from one age-band to another as beneficiary's approach college age.