VOLUME I
GETTING STARTED

COMMON ORIGINATION AND DISBURSEMENT
2016-2017 TECHNICAL REFERENCE

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Document Standards

VOLUME I
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The Common Origination and Disbursement System (COD) Technical Reference includes information for schools using the COD System. School Participants use the XML Common Record to submit Pell Grant, TEACH Grant, and/or Direct Loan data to COD.

The 2016-2017 COD Technical Reference contains message classes, edits, record layouts, implementation guides, and supporting information for Pell Grant, TEACH and Direct Loan Users.

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How to Use This Technical Reference

The *2016-2017 COD Technical Reference* is an operational guide that informs schools, vendors, and third-party servicers how to transmit Pell Grant, TEACH Grant, and Direct Loan Origination and Disbursement data to the COD System.

In particular, this Technical Reference provides the record layout and data elements that are required for the COD System to successfully process submitted records as well as the record layout and data elements for responses that are returned to participants by the COD System.

The information provided in this Technical Reference is not intended to reflect all Federal regulations that govern the Pell Grant, TEACH Grant, and Direct Loan programs and with which all participants must comply. As such, schools, vendors, and third-party servicers must refer to these regulations and documents such as the *Federal Student Aid Handbook* and Dear Colleague Letters for guidance on regulatory compliance.

Document Structure

The *2016-2017 COD Technical Reference* is comprised of six separate volumes that contain key 2016-2017 development information for COD Users. To use the technical reference effectively, choose the appropriate volume for your needs. Each volume has its own table of contents and individual sections.

Volume I: Getting Started

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- Volume III Table of Contents
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- Section 11: SU Doc Type Example
- Section 12: OF Doc Type Example
- Section 13: CS Doc Type Example

Document Conventions

The *COD Technical Reference* update for the 2016-2017 Award Year features many new and exciting changes. The following design conventions have been applied to help distinguish between the information presented within this document.

Notes & Updates

Notes and updates are now placed in the margins, as well as important changes to system functionality.

Code Samples

All code samples, field names, and field values are now distinguished from regular text by their font face, `Courier New`. Extended snippets of code are presented in the following manner:

```
<DLLoanInformation AwardKey="1">
   <OriginationFeePercent>1.068</OriginationFeePercent>
   <InterestRebatePercent>0</InterestRebatePercent>
      <DisclosureStatementPrintCode>Y</DisclosureStatementPrintCode>
   <StudentLevelCode>1</StudentLevelCode>
   <FinancialAwardBeginDate>2015-09-01</FinancialAwardBeginDate>
   <FinancialAwardEndDate>2016-05-15</FinancialAwardEndDate>
   <AcademicYearBeginDate>2015-09-01</AcademicYearBeginDate>
   <AcademicYearEndDate>2016-05-15</AcadmicYearEndDate>
</DLLoanInformation>
```

Calculations

Calculations have been highlighted and are presented in the following manner:

Eligibilty Used Calculation

EU % = 100% × (Sum of Actual Disbursements of Award - DMCS Repayments of Award)

÷ Scheduled Award Amount

Viewing & Printing the Document

Updates to this document can be found posted on the following websites:

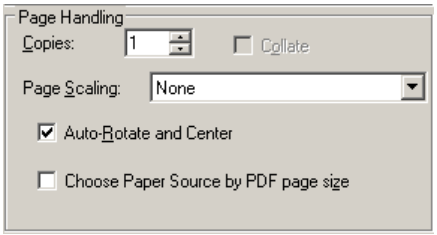
- FSA Download, https://www.fsadownload.ed.gov/CODTechRef1617.htm
    - Provides PDF format
- IFAP,

  http://ifap.ed.gov/ifap/byAwardYear.jsp?type=codtechref&display=single
    - Provides PDF format

Auto-Rotating

A number of documents in this Technical Reference will contain sections that are oriented differently, utilizing both landscape and portrait orientations to maximize usability. Some printers may not be automatically configured to print both orientations.

The user may have to configure the printer to auto-rotate the pages. This option can be set immediately before sending the document to the printer by selecting the "Auto-Rotate and Center" option:



Printing Double-Sided

This document is best printed in black and white on a printer that is capable of printing double-sided. Double-sided printing will ensure the mirror-margins appear correctly.

Alternatively, if your printer is unable to print double-sided, you can make sure your document is printed properly by following these suggested steps:

1. Print all even pages of the document
2. Load the even pages into the printer.
3. Print all odd pages of the document.

Please note that printing odd pages first, then even pages, may result in the entire document being collated backwards.

It is helpful to determine the paper orientation required to print on both sides properly so that the odd pages are not on the same side as the even pages or upside-down.

COD School Relations

If you have any questions regarding the information contained in this document, please contact the COD School Relations Center at the following phone numbers:

- (800) 474-7268 for Grant assistance
- (800) 848-0978 for Direct Loan

The COD School Relations Center can also be contacted via live chat on COD Web, upon login.

Staff is available Monday through Friday, 8am-11pm Eastern Time. Or, please email COD Customer Service at CODSupport@ed.gov.

Overview of Changes from 2015-2016 to 2016-2017

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SECTION 2

This section provides an overview of the changes made for 2016-2017 for Common Origination and Disbursement (COD).

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The COD System will bypass existing edit 206 for origination or maintenance records that cause the loan's RSEP to increase or stay the same. 4

Edit 207 4

The COD System will bypass existing edit 207 for HCM school whena disbursement is approved via the COD Action Queue which has a sequence number greater than 1. ..... **Error! Bookmark not defined.**

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Common Origination and Disbursement (COD) Changes

Changes from 2015-2016 to 2016-2017

The change descriptions are organized by the following three categories: Additions, Modifications, and Removals. The first column provides a description of each change. The remaining columns indicate which programs the change will affect.

Additions to Common Origination and Disbursement

Description	Pell Grant Program	ACG Program	National SMART Grant Program	Direct Loan Program	TEACH Grant Program
Edit 219				✓	
Edit 220				✓	
Borrower Defense Discharge				✓	
Borrower Default Check				✓	

Modifications to Common Origination and Disbursement

Description	Pell Grant Program	ACG Program	National SMART Grant Program	Direct Loan Program	TEACH Grant Program
Enrollment Date Processing	✓				✓
Payment Period Processing	✓				✓
Edit 46				✓	
Edit 205				✓	
Edit 206				✓	
Edit 207				✓	
SULA Loan Limit Exception				✓	

Removals from Common Origination and Disbursement

Description	Pell Grant Program	ACG Program	National SMART Grant Program	Direct Loan Program	TEACH Grant Program

COD Common Record Response Receipt	✓	✓	✓	✓	✓
Edit 143				✓	
Retirement of ACG and SMART processing		✓	✓		
ACG and SMART Edits 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 134, 135, 136, and 137		✓	✓		
TEACH-ATS Web Site					✓

Additions to COD for 2016-2017

Correcting Edit 219

Beginning in October 2016, COD will introduce correcting edit 219 for the Direct Loan program. Edit 219 will validate that the Award Amount is not greater than the sum of the actual and anticipated Disbursement Amount(s). Correcting Edit 219 will be trigged at the award level in the <FinancialAwardAmount> tag and the corrected value will be returned in the <ResponseErrorValue> tag. The edit will trigger for the 2016-2017 award year and forward

Warning Edit 220

Beginning in October 2016, COD will introduce warning edit 220 for the Direct Loan program. Edit 220 will trigger when a zeroed out disbursement has a Payment Period Start Date that occurs within the Loan Period on maintenance. The edit will trigger for Award Years 2014-2015 and forward

Borrower Defense Discharge

Beginning in October 2016, COD will begin receiving Borrower Defense Discharges from Servicers. This information will be available to view on the COD Web Site and will be used in determining loan limits and a borrower's SULA usage.

Borrower Default Check in PLUS App

Beginning in November 2016, StudentLoans.gov will be modified to check a borrower's loan history at NSLDS as a part of the PLUS Application process. Schools will be notified via the PLUS Application (SP) system generated response of the borrower's default status in the <defaultoverpaycode> field.

Value definitions for tag:
Y = Yes
N = No
E = Not Returned from NSLDS

Modifications to COD for 2016-2017

Grants Enrollment Date Processing

Beginning in October 2016, the COD system will no longer correct invalid enrollment dates for Pell Grants. Enrollment dates which fall outside of the valid date ranges will be rejected with existing reject edit 996 for Award 2016-2017 and forward.

The valid value date range will also be expanded for 2015-2016 and forward for the Pell and TEACH Programs.

Grants Payment Period Date Processing

Beginning in October 2016, the COD system will no longer correct invalid payment period dates for Pell Grants. Payment Period Dates which fall outside of the valid date ranges be rejected with existing reject edit 996 for Award 2016-2017 and forward.

The valid value date range will also be expanded for 2015-2016 and forward for the Pell and TEACH Programs.

Edit 46

The COD System will modify existing Edit 46 to reject origination and maintenance records where the Academic Year is less than 170 days. The edit may trigger on the end date or begin date depending on what value is changed.

Edit 205

The COD System will bypass existing edit 205 if the disbursement amount amount is zero.

Edit 206

The COD System will bypass existing edit 206 for origination or maintenance records that cause the loan's remaining subsidized eligibility period to increase or stay the same.

Edit 207

The COD System will bypass existing edit 207 for a HCM school when a disbursement is approved via the COD Action Queue which has a sequence number greater than 1.

SULA Loan Limit Exception

Beginning in October 2016, the COD system will include additional criteria to determine if SULA Loan Limit Exception processing will apply. The loan limit exception processing will apply if the following criteria are met:

1. Loan Period Length, defined as the number of days between the Financial Award Begin and End Dates, is less than the Academic Year Length
2. Award Amount for the award is equal to the annual subsidized limit for the student's Grade Level.
3. Loan Period for the award does not overlap with the Loan Period of any other active awards for that student.
4. Borrower does not have another active Subsidized Direct Loan award in the "applicable academic year" with a higher Grade Level

Removals from COD for 2016-2017

Common Record Receipts

Beginning in March 2016, the COD System will no longer generate receipts for common record responses.

Edit 143

Beginning in March 2016, the COD System will retire common record edit 143.

Retirement of ACG/SMART Processing

Beginning in March 2016, the COD System will no longer support the processing of ACG and SMART records.

ACG/SMART Edits

With the retirement of the ACG and SMART programs, the COD System will retire common record edits 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 134, 135, 136, and 137.

TEACH-ATS Web Site

Beginning in October 2016, the TEACH-ATS web site will be retired. Functionality currently found on the TEACH-ATS web site will be made available via StudentLoans.gov.

COD Overview

VOLUME I
SECTION 3

The Common Origination and Disbursement (COD) System was implemented in April 2002 by the Office of Federal Student Aid (FSA) to re-engineer the process of delivering and reporting Federal Pell Grants and Direct Loans from two processes into one Common Origination and Disbursement Process. This section will provide an overview of the COD System, contact information for COD Customer Service, and high-level information regarding the common record files and how they are processed through COD.

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Common Origination and Disbursement

The Common Origination and Disbursement (COD) System was implemented in April 2002 by the Office of Federal Student Aid (FSA) to re-engineer the process of delivering and reporting Federal Pell Grants and Direct Loans from two processes into one Common Origination and Disbursement Process.

On July 1, 2006, the COD System implemented the Higher Education Reconciliation Act of 2005 (the HERA). The HERA introduced the Academic Competitiveness Grant (ACG), the National Science and Mathematics Access to Retain Talent (SMART) Grant, and the PLUS loan for graduate and professional student borrowers (Grad PLUS). The COD System processes Grad PLUS for the 2005-2006 award year and forward, and processes the two new Grant programs for the 2006-2007 through the 2010 -2011 award years.

On September 27, 2007, Congress enacted the College Cost Reduction and Access Act (CCRAA). As a result, the TEACH Grant Program was established effective beginning with the 2008-2009 Award Year. On July 1, 2008, the COD System began processing TEACH Grant awards for the 2008-2009 Award Year and forward.

Beginning in March 2016, the COD System will no longer process Academic Competitiveness Grant (ACG), the National Science and Mathematics Access to Retain Talent (SMART) Grant awards.

COD provides a common process and an integrated system that enables efficient delivery of Title IV Funds. COD allows for:

- Common Processing:
    - One process and record for submitting origination and disbursement data
    - Edits that are common across the Pell Grant, TEACH Grant, and Direct Loan programs
    - Data tags that are common across the Pell Grant, TEACH Grant, and Direct Loan programs, and are (approaching) a cross-industry standard for data definitions
    - Elimination of duplicate data reporting for Pell Grants, TEACH Grant, and Direct Loans
- Streamlined edits to reduce turnaround time for exception processing
- Expanded online capability to make corrections/changes, to process “emergency” requests, and to check transmission status

In general, the COD Process is a simplified process for requesting, reporting, and reconciling Title IV funds.

COD Users

A COD User utilizes the Common Record in XML format to submit Pell Grant, TEACH Grant, and/or Direct Loan origination and disbursement data to the COD System.

COD Participants may submit data to the COD system in two ways:

- Batch processing of Common Record documents over the Student Aid Internet Gateway (SAIG).
- Manual entry of Common Record data using the COD web site.

Users should refer to *2016-2017 COD Technical Reference, Volume II - Common Record Technical Reference* for record layouts and processes.

COD Web Site Cookies

The COD Web site uses a "cookie" to help visitors use the web site interactively. A cookie is a small file that a web site transfers to the user's computer hard disk, usually for the purpose of tracking the user while he or she is connected to that site.

The cookie on this site does not collect any information about the user, only about the user's browser session. The cookie makes it easier for users to use the dynamic features on these web pages, without having to provide the same information over and over again as the user moves from one page to another, essentially confirming that a valid log-in was performed each time the user moves to another page. If a user has his or her computer set to block all cookies, the cookie is not created at log-in. As a result, the COD Web site cannot validate when the user moves from one web page to another. If the COD Web site cannot validate the user, the user's session is terminated and the user is forced to log in again. **To avoid this situation, all users must set their Internet browser Privacy settings for cookies to "high" or less.**

COD Web site & Privacy

For more information about COD Web privacy, please go to: https://cod.ed.gov/cod/Privacy.

COD Customer Service

The COD School Relations Center integrates customer service for the Direct Loan, TEACH Grant, and Pell GrantPrograms.

All schools should use the numbers or email address listed below for assistance:

- For Pell Grant and TEACH Grant assistance
  - (800) 474-7268
  - CODSupport@ed.gov
- For Direct Loan assistance – for award years 2002-2003 and forward
  - (800) 848-0978
  - CODSupport@ed.gov
- The COD School Relations Center can also be contacted via live chat on COD Web, upon login.
- Transmit all batch files to the SAIG mailbox to be forwarded to COD to be processed
- Perform on-line Parent PLUS and Grad PLUS Credit Checks on the COD Web site at:
  - https://cod.ed.gov
- Mail all Promissory Notes, including overnights, to:

US Department of Education
100 Capitol Commerce Blvd., Suite 160
Montgomery, AL 36117

Direct Loan: Award Year 2001-2002 and Prior

For Direct Loan assistance for award years 2001-2002 and earlier, please e-mail dlops@ed.gov.

Cessation of Paper Pnote Printing

Beginning in November 2012, the COD System stopped printing and mailing paper promissory notes to borrowers or schools. MPNs are available for order via FSA Pubs (www.fsapubs.gov). Borrowers may still complete a paper MPN by downloading the form from StudentLoans.gov and mailing the completed promissory note to Federal Student Aid.

- Refunds of Cash for Direct Loans should be returned using the Electronic Refund function in G5. The Electronic Refund function can be accessed from the G5 "Main Menu."

- **Refund Checks**
  As of January 1, 2015 the COD System will no longer accept refund checks.

- Refunds of Cash for Pell Grants should be returned using the Electronic Refund function in G5. The Electronic Refund function can be accessed from the G5 "Main Menu."

- As an alternative, the Department will continue to accept refund checks through 2014 at the following address:

- US Department of Education
  P.O. Box 979053
  St. Louis, MO 63197-9000

- Request Direct Loan Publications by contacting ED Pubs at:

  - Web: www.FSApubs.gov
  - Telephone: (800) 394-7084
  - E-mail: orders@fsapubs.gov
  - Fax: (301) 470-1244

- Schools choosing to create Master Promissory Note (MPN) forms instead of using Department provided forms must submit them for testing and review only to:

  US Department of Education

  ATTN: Rhonda Outlaw
  100 Capitol Commerce Blvd., Suite 160
  Montgomery, AL 36117

Submitting MPNs for Test and Review

All documents and shipping packages should be clearly marked "For Testing Only".

Common Record Overview

The Common Origination and Disbursement process utilizes one single record across programs for both origination and disbursement. Participants use a Common Record, one that uses common data elements, definitions, edits, and structure for Pell Grants, TEACH Grants, and Direct Loans. Although the record has the same layout for all programs, not all data elements are required for each transmission. This record layout relies on a technology called the eXtensible Markup Language, or XML.

The Common Record was developed in partnership with members of the National Council of Higher Education Loan Programs (NCHELP) and the Postsecondary Electronic Standards Council (PESC). This collaborative effort enables the Common Record to bring consistency and standardization to the transmission of student financial aid data.

What is XML?

XML stands for eXtensible Markup Language. XML is a recommendation by the World Wide Web Consortium (W3C) for how to represent structured information in a text-based format. XML is a markup language whose roots originate in HTML and SGML. Like HTML, XML consists of elements that are defined by tags. A start tag containing a name precedes element data; an end tag follows it. While HTML tags have a specific meaning and generally describe how the text between them should look, XML uses tags only to delimit pieces of data and leaves the interpretation of the data completely to the application. The tags identify data elements and provide metadata, or meaning, for the information that appears between the tags.

The textual and self-describing nature of XML makes its platform independent and very flexible in terms of content. It is an open standard for storing, publishing, and exchanging any kind of information between any number of disparate systems. As long as two parties agree on and adhere to a common data structure, they can transfer information to each other without any knowledge of the other party's operating system, database type or programming language. XML can be used in conjunction with HTML to store data within standard web pages. It can also be used to store data in files and to pull information from disparate, incompatible databases.

One of the objectives behind the design of the COD Process and System was to provide FSA and our partnering student aid schools greater flexibility in record processing, i.e., opportunities for multiple data cross-walks. The COD Process could serve as a technological foundation for future FSA integration initiatives. Given these objectives, XML was the logical choice for the Common Record's format and structure. XML offers the flexibility to design records, known as XML documents, particular to an audience or community. It allows increased access to and reuse of information. It supports validation [edits] by checking structural validity and flagging errors. It also enables systems to share information and users to see different views of available data.

XML 101

XML technology allows a common data packet structure to be used between two disparate systems. It is a markup language that defines data structure. An XML document is the vehicle through which data is transmitted. It can be thought of as a batch.

XML documents are comprised of markup and content. Markup defines the content. For example, `LastName` is the markup describing the content, `Jones`.

```
<LastName>Jones</LastName>
```

`<LastName>` is a start tag. Note the presence of brackets. `LastName` is an element. Jones is the data, or XML content. `</LastName>` is an end tag.

Elements can be either complex or simple. A complex element is a grouping of attributes or other elements. The Common Record is a logical grouping of complex elements. In the following example, the Complex Element is bolded.

Complex Element:

```
<Name>
    <FirstName>Heidi</FirstName>
    <LastName>Smith</LastName>
</Name>
```

A simple element refers to the value that is contained within tags. In the following example, the two simple elements are bolded.

Simple Element:

```
<Name>
    <FirstName>Heidi</FirstName>
    <LastName>Smith</LastName>
</Name>
```

Fixed-Format Files vs. XML Documents

Fixed-format files have been used as vehicles through which data can be exported and imported to business applications. Fixed-format files contain a sequence of fields that is in machine-readable language. An example of a comma-separated, fixed-format file follows:

```
Sally, A, Smith, 299999999, 1980-02-03, IN, DL222222, false, P,
417 Halper Road, Fort Wayne, IN, 46807, Allen, USA, 2197999999,
sally.a.smith@email.net, 1, 221784902
```

In the above comma-separated fixed-format file, it is difficult to understand what the data means. There is also no way to validate the document to make sure that the data is represented in a format that can be read by the receiving application.

XML is a language that is not only machine readable, but also human readable. It also has a mechanism to ensure the validity of the document format through the use of XML schemas. As a result, business applications are rapidly moving toward the use of XML to exchange data. The following example demonstrates that XML not only represents data in a human readable text format, but also provides meaning to the

data through the use of tags. This is how a Student record similar to the one represented in the fixed-format file above would be represented in XML:

```
<Student>
   <Index>
      <SSN>299999999</SSN>
      <BirthDate>1980-02-03</BirthDate>
      <LastName>Smith</LastName>
   </Index>
   <Contacts>
      <PermanentAddress>
         <AddressLine>417 Hapler Road</AddressLine>
         <City> Fort Wayne </City>
         <StateProvinceCode>IN</StateProvinceCode>
         <PostalCode>46807</PostalCode>
      </PermanentAddress>
      <Phone>
         <PhoneNumber>219-799-9999</PhoneNumber>
      </Phone>
      <Email>
         <EmailAddress>sally.a.smith@email.net</EmailAddress>
      </Email>
   </Contacts>
   <Citizenship>
      <CitizenshipStatusCode>1</CitizenshipStatusCode>
   </Citizenship>
   <Note>
      <SchoolNoteMessage>New Person</SchoolNoteMessage>
   </Note>
</Student>
```

Common Record Structure

The XML document called the Common Record is composed of different information modules, referred to as complex elements or blocks. Data fields within the blocks emphasize similarities across programs and contain information such as: document or batch information, school or entity information, person information, award or origination information, disbursement information, and the response status of the record.

A general rule regarding sequence of data within blocks, and within complex elements: the start and end data tags and their content must be presented on the XML document within the block's tags or the complex element tags to which they belong. The sequence of the data within that block or element is dictated by the sequence of the data tags presented in the XML Common Record Schema. For example, if a complex element has ten simple elements within it, those ten elements must occur in the same sequence as depicted in the XML Common Record Schema.

The Common Record is organized into the following structure:

Quick Reference Block Description

	Block Name	Block Description
1	Document Information	The Document Information Block contains information that was previously associated with a batch. It contains a date/time stamp, document validation information, summary-level document information, as well as the source of the document. This block occurs once per XML Document or submission.
2	Entity Information	The Entity Information Block contains information about the reporting and attending school. This block occurs once per reporting entity or school within the XML Document or submission.
3	Person Information	The Person Block contains student or parent information. This block occurs once per person, except for Grad PLUS where there will be two person blocks with identical data. All data within the two blocks must be identical.
4	Award Information	The Award Information Block contains Direct Loan, Pell Grant, and TEACH Grant award information, similar to origination data submitted in the fixed-length record layouts. As other partners use the Common Record to transport data, this will be the location of those awards. This block occurs once per award per person.
5	Disbursement Information	The Disbursement Information Block contains Direct Loan, Pell Grant, and TEACH Grant disbursement information. This block occurs once per disbursement.
6	Response	A Response block is nested within each block. The Response block is returned by COD to the submitting entity upon processing the Common Record. The Response block contains information about processing edits and document status.

Below is a pictorial representation of the Common Record layout. It illustrates how the Common Record is comprised of information modules or blocks.

The Common Record Document Structure

```
<CommonRecord>
    <Entity>
        <Person>
            <Award>
                <Disbursement>
                </Disbursement>
            </Award>
        </Person>
    </Entity>
</CommonRecord>
```

These information modules or blocks may be reused many times in the same record to transmit data for multiple awards and multiple disbursements for one or multiple students by one or multiple Attended Schools.

Schema Version

In March 2016, all records containing 2016-2017 data should continue to use the 4.0b schema.

Schools may continue to send records for prior Award Years in earlier schema versions (3.0e, 3.0d, and 4.0a only)

XML Schema

An XML Schema specifies the rules surrounding the logical structure of an XML document. It is a language that describes the allowed content of documents. It defines the elements present in the document and the order in which they appear, as well as any attributes that may be associated with an element.

To support the open standards proven effective in the development of the Common Record, FSA is making the XML Schema for the Common Record available electronically to all interested parties. Whether a school, a software provider, or a third-party servicer is using it for product development to support COD or any student financial resource trading partner is interested in incorporating the Common Record into their products and services, the schema is available on the web at: http://ifap.ed.gov/ifap/publications.jsp.

XML Resources

Extensible Markup Language (XML) is a growing standard for e-commerce, data transmissions and structured documents using the Internet. Many industry groups are developing schemas and data dictionaries for this purpose. As a result, there is extensive information available about XML and the initiatives specific to the higher education community. Many institutions are already using XML for their own Internet initiatives, including self-service applications for students, faculty, and staff; data exchanges both within and outside the school, and even data coordination or backup with data warehouse projects.

Available resources about XML include courses at many institutions and local or Internet bookstores. The Web is also a resource, including the sites mentioned below. The first three are international standards bodies, and the last is specifically for the schema and data dictionary for higher education.

- http://www.w3.org
- http://www.ebXML.org
- http://www.oasis-open.org
- http://www.PESC.org
- IBM's Introduction to XML: http://www-106.ibm.com/developerworks/xml/
- Sun's XML & Java Technologies: http://java.sun.com/xml
- The XML Industry Portal: http://www.xml.org
- Web Reference: Exploring XML: http://www.webreference.com/xml/
- XML Information: http://html.about.com/cs/xmlinformation
- O'Reilly XML.com: http://www.xml.com
- The XML FAQ: http://www.ucc.ie/xml

Literature is constantly being updated as new technologies develop and mature. Therefore, it is recommended that time be spent exploring these resources.

Common Record Processing

This section addresses at a high level the processing of the Common Record from the institution perspective.

The COD Process is comprised of the following steps:

Please note that this overview of the COD Process will not cover the entire cycle for a school. There are items that take place prior to the submission of records (i.e. packaging) that are not explained in this document.

Common Record Submission

The COD Process begins when a school submits a Common Record. The Common Record is submitted by schools in one of two ways:

- Batch Submission via SAIG
- Manual Online Submission via the COD web site

Batch Submission

All Common Records sent in batch mode are submitted to COD's Student Aid Internet Gateway (SAIG) mailbox. The Enterprise Application Integration Bus (EAI Bus) performs periodic sweeps of COD's SAIG mailbox and transmits the Common Record data to the COD System.

Online Submission

A COD User can manually enter data online via the COD web site. The COD Web site creates a Common Record document for data entered online and sends it directly to the COD System.

Common Record Receipt

Beginning in March 2016, the COD system will no longer generate and send receipts for Common Record documents received via SAIG.

Common Record Processing

Upon receiving a record the COD System classifies the record to determine how it is to be processed. The types of records are:

- New Record
- Update/Maintenance Record

New Record

A New Record establishes a new person, award or disbursement on the COD System. There are three types of new records:

- New Person with New Award – If the SSN contained in the student identifier does not match any previously submitted to the COD System, then the record is considered a New Student. Any New Student Record must contain a New Award Record. For Pell Grant, TEACH Grant, and Direct Loan Subsidized/Unsubsidized, the Student Identifier submitted by a school to establish the student on COD is matched to data from the Central Processing System (CPS).
    - For Pell Grantand TEACH Grant, the current SSN, current Date of Birth, and first two characters of the current Last Name are matched with CPS data.
    - For Direct Loans, the current SSN and current Date of Birth are matched with CPS data.
- New Award – If the student identifier matches an SSN already established on the COD System, then the system checks to determine if the award is already on file. If not, then the record is considered a New Award.
- New Disbursement – If the person and award already exist on the COD System, then the system checks the disbursement number submitted for the award. If it is not already on file, then the system logs the disbursement as a new disbursement. There are two types of disbursement records:
    - Actual Disbursement - Actual Disbursement Records contain a `DisbursementReleaseIndicator` equal to `true`. The `DisbursementReleaseIndicator` is a tag on the Common Record that signals to the COD System that the disbursement information is an actual disbursement. It either makes funds available to a school, or substantiates cash already made available to the school. These records affect the Current Funding Level (CFL) calculation for the school. This can be thought of as the actual disbursement record in the old fixed-length record process.
    - Anticipated Disbursement – Anticipated Disbursement Records contain a `DisbursementReleaseIndicator` equal to `false` or omitted. If the `DisbursementReleaseIndicator` is omitted, the

Award Already on File

For Direct Loans and TEACH Grant, the Financial Award Type, Financial Award Year, Attended Entity ID, Reporting Entity ID, and Financial Award ID fields are checked to determine if the award is already on file.

indicator will default to `false`. These disbursements are not considered Actual Disbursements; therefore, they do not substantiate drawdowns. These records do not affect the CFL calculation for the school.

Update/Maintenance Record

An Update/Maintenance Record performs a change to information or elements that were previously established on the COD System by a New Record. There are two types of Update/Maintenance Records:

- Update/Maintenance Record – An Update/Maintenance Record performs a change to a data element that was previously established by a New Record or is used to change disbursement amounts and dates that occur prior to substantiating drawdowns.
- Release Record – A Release Record can be submitted to the COD System with a `DisbursementReleaseIndicator` equal to `true` for a disbursement record previously submitted as an Anticipated Disbursement Record. Data elements can be changed via the COD Web site or by resubmission of a Common Record. Once the release indicator is set to `true`, there will no longer be an anticipated disbursement on the system with the same disbursement number as the actual.

Common Record Editing

Once the Common Record is received and has been classified, the COD System performs a series of valid format and content edits to determine if the file is suitable for further processing.

The COD System performs three types of edits:

Please note the COD System does not correct Direct Loan and TEACH Grant data.

- Correction – For Pell Grant data, if the school selects this option, the system automatically corrects the data and sends a response to the entity that submitted the record indicating that a correction took place, the element corrected, the original value, and the corrected value. The default option in the COD System for all schools is set to 'correct'. If a school wants to have COD reject data instead of correcting it, then it must contact the COD School Relations Center to request that FSA make this change.
- Warning – The COD System sends a response to the entity that submitted the record indicating a warning, the warning code and the relevant element. The record continues to be processed by the COD System.
- Reject – The COD System sends a response to the entity that submitted the record indicating the reject code, the reject reason(s) and the relevant element(s). The record requires action from the school to continue processing.

Where possible, COD uses information from CPS as a basis for these edits. COD receives the information from CPS on a daily basis. This file is used to:

- Confirm a valid ISIR is on file (if applicable) and,

- Pull student-level information required for Common Record processing.

The COD System performs edits on the Document, Entity, Person, Award and Disbursement levels of the Common Record data. Data that passes edits is accepted and continues to be processed while data that does not pass edits is rejected. The COD System stores rejected data and associated reject reasons. Rejected data is held for corrective action to be taken by the school. Data can be corrected via Common Record re-submission or via the COD web site. The COD System then returns a response record notifying the school of the edit results.

The Common Record can be resubmitted in its entirety or sent with just the key identifiers, minimum data elements required for processing, and those data elements that have changed.

Response Documents

For all Common Records received and processed by the COD System, the COD System returns a Response document indicating the status of the Common Record processing, including any rejected data elements and the reason for the rejection. If the Common Record was accepted, then the Response document indicates that the record was accepted.

The COD System sends one Response document for each Common Record document submitted. For Common Records that are transmitted via the SAIG, the COD System sends Response documents to the school's SAIG mailbox. For Common Record data entered into the COD web site, schools have an option to receive a Response document via their SAIG mailbox in addition to seeing the response via the COD Web site.

For Responses received via the SAIG mailbox, schools also have the option to receive a Full or a Standard Response to Common Records processed by the COD System. A Full Response contains all the original tags sent by the school and the rejected data elements and reason codes. A Standard Response contains only the minimum tags, the rejected data elements and reason codes.

Record Layouts and Processes

For further information regarding record layouts and processes, schools/software vendors should refer to *Volume II – Common Record Technical Reference*.

For examples of COD Response Documents, please refer to *Volume VI, Section 6 – XML Examples* and *Volume VII, Section 7 – COD System Generated XML Response Files*.

If you use a combination of EDExpress and another system, please refer to *Volume III – Pell Grant& Direct Loan Combination System Supplement* for record layouts, processes, and edits pertinent to working in a combination system.