

Software Developers Conference Final Agenda

Day One (August 14)

9:00 a.m 9:15 a.m.	Welcome
9:15 a.m 9:30 a.m.	Data Strategy Overview
9:30 a.m 10:30 a.m.	Data Strategy
	Technology Strategies
	• Routing ID
10:30 a.m 10:45 a.m.	Break

10:45 a.m 11:30 a.m.	XML Framework
	Common Record
	Common Line
11:30 a.m 1:00 p.m.	Lunch (on your own)
1:00 p.m 2:00 p.m.	Standard Student Identification Method
2:00 p.m 2:45 p.m.	Panel of Experts
2:45 p.m 3:00 p.m.	Hardware/Software Update
3:00 p.m 3:15 p.m.	Break
3:15 p.m 5:15 p.m.	CPS Processing and Changes for 2004-2005
	FASFAsEDExpress
	ISIR Data Mart Record Layout
	• Testing

Day Two (August 15)

9:00 a.m 11:00 a.m.	COD Processing and Changes for 2004-2005 Record Layout Testing
11:00 a.m 11:15 a.m.	Break
11:15 a.m 11:45 a.m.	Questions and Answers
11:45 a.m 12:15 p.m.	Next Software Developers Conference: November 6, 2003, San Diego, CA

U.S. DEPARTMENT OF EDUCATION FEDERAL STUDENT AID

AUGUST 2003 SOFTWARE DEVELOPERS CONFERENCE LIST OF PRESENTERS AND CONTACT INFORMATION

"Data Strategy Overview"

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"Data Strategy"

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"Technology Strategies"

Denise Hill 202-377-3030 denise.hill@ed.gov

"Routing ID"

Paul Hill, Jr. 202-377-4323 paul.hill.jr@ed.gov

"XML Framework - Common Record"

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XML Framework - CommonLine"

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"Standard Student Identification Method"

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"Hardware/Software Update"

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"CPS Processing Changes for 2004-2005"

Teri Hunt Contact Bev Allen or Larry Adams at 1-800-330-5947

"COD Processing Changes for 2004-2005"

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August 14-15, 2003

Crystal Gateway Marriott Arlington, VA



Welcome and Conference Agenda



- Data Strategy
- XML Framework
- Standard Student Identification Method
- Panel of Experts
- Hardware/Software Update
- CPS Processing Changes for 2004-2005

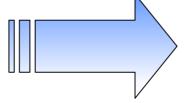


Welcome and Conference Agenda (cont')



- COD Processing Changes for 2004-2005
- Questions & Answers
- Conference Wrap-Up







FSA Data Strategy Overview



- Need for FSA Data Strategy
- FSA Data Strategy Initiatives
- FSA Data Strategy Approach
- FSA Data Strategy Status
- Next Steps



Need for FSA Data Strategy



FSA needs a Data Strategy to achieve...

- Cross-Program Integration
- Improved Data Quality
- Improved Organization and Distribution of Data
- An Enterprise Data Storage Strategy



FSA Data Strategy Initiatives



FSA Data Strategy is the integration of six key initiatives:

Data Framework

- As-Is and Target State Data Flows
- Data Quality Team
- Quality Assurance and Implementation Plan

Technical Strategies

- Internal and External Data Exchange and Access
- Web Portals
- Web Services
- Data Warehouse / Data Mart / Storage



FSA Data Strategy Initiatives (cont')



Common Identifiers

- Standard Student Identification Method
- Routing ID

XML Framework

- XML ISIR, COD
- XML Registry and Repository

Enrollment and Access Management

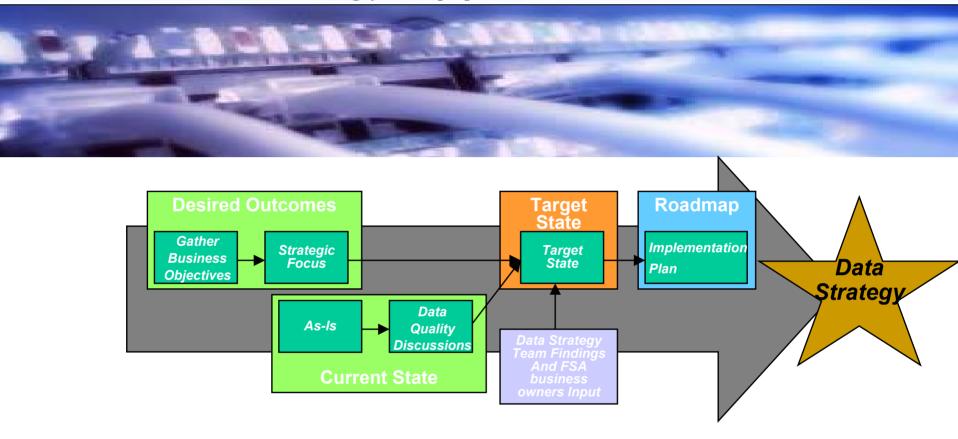
- Business Objectives and High Level Requirements
- High-Level Design

SAIG Capacity Analysis

Impact of XML ISIR / increased XML usage on the SAIG



FSA Data Strategy Approach



- Gather <u>Desired Outcomes</u> and <u>Current State</u>
- Create the <u>Target Vision</u> for Enterprise Data Usage
- <u>Facilitate</u> Paradigm Shift from <u>Current to Target State</u>



Where We Are Today



The Data Strategy Teams have confirmed several key findings:

- Data should be organized by business process, not by system.
- Providing <u>data access</u> to business experts is a <u>key component to improving</u> the enterprise's ability to make informed <u>business decisions</u>.
- Need <u>centralized visibility</u> and data <u>flow control</u> of the end to end <u>interface</u> <u>process.</u>
- Verified that using a <u>Matching Algorithm</u> with <u>SSN</u>, <u>First Name</u>, <u>Last Name</u>, and <u>DOB</u> is the most <u>flexible and tolerant</u> way to <u>identify customers</u>.
- Need to develop a <u>single Enterprise solution</u> for all <u>trading partner identification</u> and <u>access</u>.
- "As-Is" Data Flow <u>discussions</u> have <u>facilitated a broader understanding</u> of <u>End-</u>to-End <u>business processes</u> across all FSA program areas.

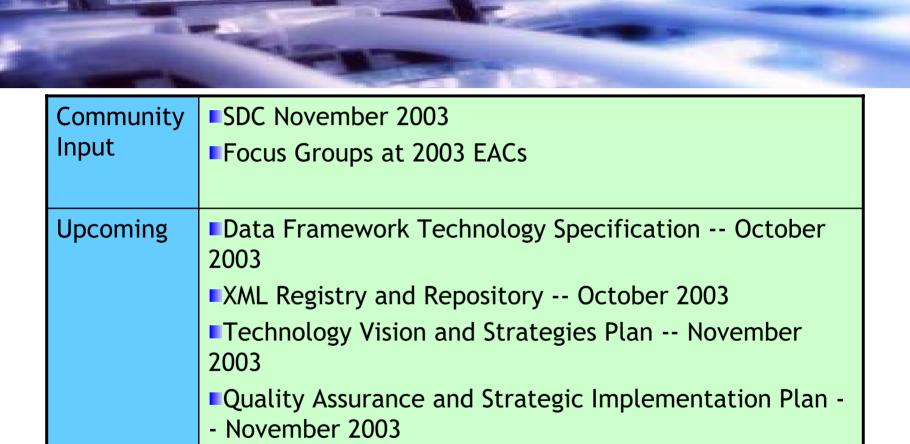
Data Quality Team Progress



Input Gathering	Gathered, Validated and Prioritized Data Quality Issues with FSA business owners.
	Gathered, Validated and Prioritized Data Quality Issues from other staff who compile cross program data for analysis.
Consensus	Performed enterprise prioritization of Issues - Top 10Validated "Quick Hits" for faster action
Community Input	Focus Groups- 2003 Spring Conference and 2003 NASFAA Conferences
Reports	Received the Data Quality Report



Data Strategy Next Steps







Thank You!

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Data Strategy Agenda



- Data Quality Approach
- Mad Dog Meetings and Outcomes
 - Common Identification Methods
 - Reconciliation and Analytics
 - Education and Communication
- Focus Group Recap
- Next Steps



Data Quality Approach



Within the Data Strategy initiative there are two Data Quality Components.

Data Quality Mad Dog Speed and Priority focused



Data Quality Assurance
 Plan - Long Term
 repeatable processes



Mad Dog Meetings



- The Mad Dog Team's goal was to identify issues that, when addressed, will have the highest impact on FSA's Strategic Objectives. After prioritizing in this manner, the team concluded that these issues naturally fell into the following groups:
 - Common Identification Methods for Students, Trading Partners and Aid
 - Data Exchange Improvements and Isolated Data Cleansing
 - Education and Communication Regarding Data Usage for Analytics



Mad Dog: Common Identification Methods



- The Mad Dog recommended the adoption of three key common Identification Methods that would enhance FSA data quality.
 - Standard Student Identification Method (SSIM)
 - Routing ID (RID)
 - Common Loan Identifier
- Key Benefits of these identifiers include:
 - More reliable student financial aid history
 - Easier cross program analysis and reconciliation
 - More complete tracking of loans within a consolidation



Mad Dog: Reconciliation and Analytics



- The Mad Dog recommended the enhancement or correction of data processing in the following areas:
 - FFEL Loan data collection regarding defaulted loans
 - Impacts to EFC and disbursement results
 - Enrollment and Graduation Status
 - PLUS Loan borrower verification
- Key Benefits of these actions would include:
 - Higher quality data feeds into the FSA Collections process
 - More informed Loan Program budgeting
 - Reduction in opportunities for Waste, Fraud and Abuse



Mad Dog: Education and Communication



- The Mad Dog recommended revised and enhanced communication and education regarding the following subjects:
 - FFEL Loan detailed data reporting timing and content
 - SAIG enrollment procedures
 - Reconciliation of AMF and VFA fee payments
- Key Benefits of these actions would include:
 - More informed use of FSA data for analytic purposes
 - Stronger security regarding the use of the SAIG
 - More uniform understanding and processing of fee payments



Focus Group Session Recap



- Convened a Focus Group
- Discussed impacts and feedback regarding:
 - SSIM
 - RID
 - External Data Exchange
 - Data Quality
 - Common Line Initiatives
- Summary of Outcomes



Next Steps: Quality Assurance Plan



- The Data Quality Mad Dog Report serves as the catalyst for establishing an on-going, enterprise wide data quality methodology.
- The next step in this process is the creation of a Data Quality Assurance Plan that will define this concept in more detail and provide the framework necessary to create a viable quality assurance strategy.
- Implementing this process will result in the creation of standard definitions and data clean-up scripts that signify the beginning of the data quality maturity at FSA.







Thank You!

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Technology Strategies



Agenda



- Update on Web Services
- External Data Strategy
 - Key business objectives
 - Relation to the Overall Data Strategy
 - Timelines
- Questions



Update on Progress: Web Services



- The Technical Strategies team is reviewing the role of Web Services as part of the External Exchange effort.
- Continuing the focus on improved communication capabilities with external partners, the effort includes understanding how Web Services can be utilized to exchange data and answering key questions.



What is the External Data Effort?



External Data Exchange:

The methods used to allow external partners to access FSA internal systems and business capabilities to facilitate data exchange.



Examining the types of External Exchange



- Transfer Method (FTP, Tape, Web Services, Paper, SAIG etc.)
- Data format and size (Flat File, XML, Compression etc.)
- Security (Access Management, Data Privacy, Enrollment, etc.)



External Data Business Objectives



FSA Business owners outlined the initial business objectives below:

External Information Access	1	Standardize external exchange of commonly referenced data through a single, virtual, secure FSA gateway to simplify communication with FSA.
	2	Enable access to key business services for the external community.
	3	Right-Time exchange of necessary data with trading partners.
	4	Clarify, communicate, and enforce data access standards with external trading partners.



How does External Data fit into the Data Strategy?



- Defines the data exchange standards and mechanisms for exchanging data in a more uniform way, will lead to fewer unique interfaces and "one-off" exchanges.
- Supports more efficient data transfers through reduction in the redundancy of effort and data exchange.



Timelines



- Outline Current State and Business Objectives: April - June 2003
- Outline and Assess Options to meet captured objectives: August September 2003
- High-level External Data Strategy: September, 2003
- Implementation Strategy and Sequencing Plan: November, 2003



Thank You!

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Routing ID-Agenda



- Current Environment Overview
- Routing ID (RID) Vision
- Routing ID (RID) Overview
- Routing ID (RID) Solution Recommendation
- Wrap Up / Questions?



Current Environment Overview

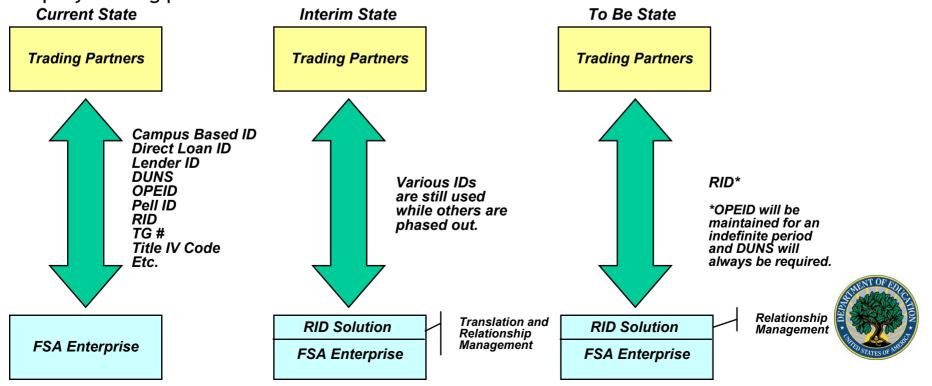


- Key Problems in the Current Environment
 - FSA portfolio of applications consists of <u>21 primary systems</u> that trading partners use to originate, disburse, collect, and manage Title IV Financial Aid for students
 - Trading partners must present <u>different identifiers</u> to FSA <u>based upon the particular system</u> they are interacting with <u>or type of business transaction</u> they are conducting
 - There are 16 primary trading partner identifiers
 - <u>Discrepancies exist</u> among trading partner identifiers stored within current systems
 - FSA is <u>unable to easily gather information</u> about a trading partner or a target group across the enterprise
 - Trading partner relationships cause <u>confusion among community</u> and create ongoing maintenance issues



Routing ID (RID) Vision

The Routing ID (RID) will provide FSA trading partners a means to interact with FSA systems and services using a single common identifier across the enterprise, irrespective of system or function. This will result in increased data quality, enhanced oversight capability, and simplify trading partner interactions with FSA.



Routing ID (RID) Overview



RID Objectives

- Single Common Identifier
- Enterprise solution for management of partners identities
 - Leverage non-descriptive identifier for each trading partner
 - Enhance process to create/maintain relationships among partners
 - Develop ability to <u>easily segment and report</u> on FSA trading partners
 - Reduce FSA administrative effort required to maintain partner identifiers
- Minimize impact to established Trading Partner interactions through a gradual phase-in approach
- Increase data quality of information maintained about FSA Trading Partners



Routing ID (RID) Overview



- RID Format Recommendations
 - Eight character numeric key
 - Randomly generated number
- Benefits of a new Randomly Generated Number
 - A "dumb" number allows values in key to signify nothing about the numbered trading partner besides its identity
 - Allows for 9,999,999 RIDs clearly sufficient for all foreseeable future growth
 - Eliminates confusion created by applying new meaning to a previously used number (e.g., giving trading partner identifier meaning to TG #)
 - Eliminates maintenance cost associated with keeping RID values in sync with other trading partner identifiers
 - Can be applied uniformly to all trading partner entities

Routing ID (RID) Solution Recommendation



Integrated Partner Management Framework
Schools, Guarantee Agencies, Lenders, Third Party Servicers, State Agencies, Software Developers and Auditors

Web Application Interfaces	I Integrated View Services	Data Access Service	Enrollment Management Integrated Application and Enrollment Processing - Process Requests, Determine Access Institution- level System Enrollment and Single Sign Up (SSU) Initial RID Assignment	Eligibility Management New Trading Partner Applications Re- certifications Program Participation Management Appeals Proactive Eligibility	School On-Going Oversight Program Eligibility Oversight: Audits, financial statements, default rate calculations Compliance Reviews: Risk assessment, accreditation, student complaints, funding parameters, referrals Eligibility Actions (FPRD, Fines, LOC, LS&T, Referrals)	Going Oversight Program Eligibility Oversight: Audits, financial statements, Compliance Reviews: Risk assessment, referrals	
Portals				Management	Appeals Proactive Oversight, Monitoring, and Support Reporting and Audit Service	Monitoring, and Support	Enterprise Routing Identifier (RID) Services
	Performance Monitoring Compliance and Oversight Effectiveness Fee and Payment Summary Reporting Ad-hoc querying						
FSA Gatew ay	-		Profile and Demographics Management Demographics Management Relationship and Affiliation Management Enterprise RID Management				
Š			Access Management Individual User Access Management Roles based Single Sign Up (SSU) Trading Partner Self-Administered Access				
				Cu	stomer Support		
	Workflow Management						



Wrap Up / Questions?









Thank You!

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Executive Summary

Project Overview

The Office of Federal Student Aid (FSA) is seeking to deliver overall improvements in the areas of data quality and data consistency. FSA is focused on its overall approach towards data to ensure that accurate and consistent data is exchanged between its customers, partners, and compliance and oversight organizations. FSA will also leverage a targeted data strategy to support the enterprise-wide goals of maintaining a clean audit and removing FSA from the General Accounting Office (GAO) high-risk list.

Senior FSA leadership has created a performance plan with several action items designed to remove FSA from the GAO High–Risk List. The Data Strategies Enterprise-Wide project addresses the action items focused on data quality, storage, and exchange. The Extensible Markup Language (XML) Framework is a core technical component of the overall FSA Data Strategy Enterprise-Wide initiative.

Scope

The XML Framework Strategic Assessment and Enterprise Vision is a document that provides a detailed roadmap of the strategy and rationale behind the XML Framework. The XML Framework, as it is envisioned, will provide the technical foundations for standardizing data exchange, as FSA proceeds with implementations as recommended by the Data Strategy Enterprise-Wide initiative.

Drivers

The XML Framework has been developed to address the following strategic drivers for FSA:

- Simplify and standardize data exchange with internal and external trading partners.
- Deliver consistent and accurate data across the enterprise-level systems at FSA.
- Achieve enterprise-wide efficiencies related to better data exchange standards and policies.
- Strengthen FSA's relationship with the government and financial aid community data standards bodies, to support industry wide data exchange standards.

Vision

The XML Framework Vision is:

FSA will use XML, via a single set of enterprise and community standards, to simplify and streamline data exchange across postsecondary education.

The XML Framework will enable FSA to realize the benefits of fully integrating XML as an enterprise-wide standard for internal and external data exchange. By establishing enterprise-wide XML standards and policies, this vision represents a strategic shift in FSA's approach to data exchange and modeling and will enable FSA to take full advantage of XML's position as the industry standard for data exchange, as well as XML's more advanced technical capabilities.

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Goals

By establishing XML standards and governance processes, FSA's Enterprise XML Vision will enable FSA to meet the XML Framework's strategic drivers. Specifically, the Framework will enable FSA to achieve the following nine goals.

- Data Exchange Standard Standardize FSA's data exchange using XML as the data exchange technology standard.
- Consistent and Accurate Data Achieve consistent and accurate data. The framework will define data standards, as XML entities, for data exchange to achieve consistent and accurate data.
- **Data Cleanup and Maintenance** Enable data cleanup and maintenance activities. The framework will utilize commonly-defined XML Core Components and XML-based tools to enable the data cleanup and data maintenance activities, as part of the larger Data Strategy Enterprise-Wide initiative.
- Standard Data Tools and Processes Establish standard data tools and processes, to support consistently performed data/XML modeling through standard tools and processes. These standards will be aligned with community and government standards initiatives.
- System Flexibility Provide system flexibility to simplify future interface changes and support new application and data exchange requirements, through XML-based data modeling for system interfaces.
- Data Modeling Best Practices Use XML and Data Modeling best practices in order to model key business data for exchange and storage.
- Governance Establish an XML governance process to maintain and refresh FSA's XML capabilities.
- Communication Define processes to ensure timely and accurate communications with FSA's business partners (e.g., Schools, Guaranty Agencies, Third Party Servicers, Software Providers, etc.) regarding XML implementations and changes.
- Service-Oriented Architectures Develop an XML infrastructure that supports usage of advanced capability, such as Service Oriented Architectures (SOA) and real-time transactions.

Approach

FSA's Enterprise XML Framework approach is presented in an Integration Partner developed model, called the XML Maturity Model. This model provides a sequencing plan for FSA to incrementally standardize and improve its usage of XML across the enterprise. The activities and sequence are aligned with FSA's key business objectives. The XML Maturity Model is based on previous XML development at FSA, XML case studies, general industry trends, and key principles from Carnegie Melon's Software Engineering Institute (SEI) Capability Maturity Model (CMM). The resulting XML Maturity Model provides a phased approach to implementing XML as an enterprise standard within FSA. The model also provides a roadmap against which FSA can measure its progress.

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XML Maturity Model for FSA

Initial Ad-hoc development. Occasionally chaotic. - Few defined processes. - Rely on individual efforts. Basic Schema Development (COD) Basic Internal XML Message Exchange Capability Basic External XML Message Exchange Capability

Repeatable

- Some defined processes.
- Tracking of cost, schedule.
- and functionality. - Application of lessons
- leamed

Intermediate Schema Dev elopment (ISIR)

Initial Component-based Schema Development

Analysis of ISIR and COD Schema modeling concepts

Discussion and analysis of Schema approaches to determine best practices

Defined

- Processes are well defined and documented.
- Both functional and technical processes are addressed
- Standards are set and followed

XMI Vision

XML Core Components Analy sis and Definition Standards

XML Messaging Document Assembly Standards

XML Toolset Standards

Registry and Repository

Initial Governance Standards

Coordinate With Other XML Initiatives

XML Technical Knowledge

Managed/ Optimizing

- There is a cycle of continuous improvement to the processes.
- Innovative ideas and technologies are introduced and integrated with the processes.

Maintain/Update XML Core Components

Data Reconciliation and Cleanup

XML-based Web Services

XML-integrated Presentation Capability (Portals)

XML-based Messaging Business Rules and Edits Standards

Centralized Parsing / Processing Facilities and Standards

Message Validation Standards

Last Updated: June 25, 2003

^{*} Each level builds upon the principles of the previous levels.

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XML Framework



Common Record Estimated Implementation Schedule

02-03		Common Record – COD v 1.0g
03-04		Common Record -COD 2.0c (changed all tag names)
04-05		Common Record -COD 2.0d (+2 new tags - 6 old tags)
05-06	Common Record - ISIR 1.0a Align with standard	Common Record – COD 3.0 Align with standard (XML Required)
06-07	Common Record - ISIR 1.0a (XML Required)	Common Record - COD 3.0a
07-08	Common Record - ISIR 1.0a	Common Record – COD 3.0b



- XML Strategic Assessment and Enterprise Vision
- XML Technical Reference and Usage Guidelines
- XML Core Component Dictionaries
- XML Registry and Repository
- XML Framework Communications Strategy
- XML ISIR Performance Test and SAIG Capacity Plan



Thank You!

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Common Record: CommonLine (CR:C)

Presented by:
Tim Cameron
Vice President of Technology Services
NCHELP
August 14, 2003



Topics for Discussion



- Common Record: CommonLine (CR:C) Implementation Update
- CR:C Data Transport



Common Record: CommonLine



Progress Report

- Documentation development
 - First draft for public review May 2003
 - Second draft for public review June 2003
 - Final documentation July 2003
 - Some sections remain in DRAFT form



Implementation Discussions



- Electronic Standards Steering Committee conference call with FAMS vendors
- July 2003 Electronic Standards Committee Meeting



Next Steps for FFELP



- Finalize documentation development
- Training, education and outreach!
 - School conference call training
 - Implementer technical training
 - Conference circuit





- CRC XML records are physically larger than the CommonLine Records they replace.
- Email will probably not be able to handle the CRC records in a batch transmission due the file size.





FTP will be able to handle 10Mb encrypted files, but any larger and special operational procedures are required by EEAT rules.





- High Performance Channel
 - Many people are confusing the protocol description with reference implementation.
 - SOAP has a theoretical limit of 1Mb message size, but HPCP's will address large file transmission.





- There are specific items that must be accomplished:
 - The technical documentation needs to be reviewed and there are a few security issues to be addressed.
 - A business decision on a central registry solution is needed. The current preference is to duplicate the Meteor Registry system.



- Outstanding items, con't:
 - Large File Transmissions solution needs to be reviewed, finalized and added to the technical documentation.
 - The reference implementation needs programmers, testers and implementers to assure that the technical documentation is realistic and reasonable.





- CR:C Transport Workgroup
- Joint Application Development (JAD) Session





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Standard Student Identification Method -Agenda



- Standard Student Identification Method (SSIM) Overview
- **SSIM** Details
 - SSIM Matching Algorithm
 - **SSIM SSA Match Recommendations**
 - SSIM Exceptions and Change Processing
- Feedback



SSIM Overview



SSIM Basics

- The Standard Student Identification Method, or SSIM, was formerly known as Common Student ID.
- The initiative's name was changed to reflect the flexibility of the chosen method, and avoid confusion that the solution would be a new unique number.
- SSIM is one of the six teams in the Overall Data Strategy Initiative working to ensure data integrity within and between FSA systems.



SSIM Overview



Key Identification Problems in the Current Environment

- Unique customer records can be inappropriately merged creating privacy concerns.
- A customer's records cannot be linked appropriately preventing FSA from viewing data about a customer across all phases of the lifecycle.

Cause of the Identifier Problems

- All FSA systems may not be using the same additional identifying data. Most systems employ different rules for determining uniqueness of identities for inbound or outbound interfaces.
- Some FSA systems complete an SSN verification with SSA before data is processed;
 others do not perform the SSA match when new information is received.
- Changes or corrections to identifying fields (e.g., SSN) are not consistently supported or propagated throughout the FSA enterprise.

SSIM Objective



Objective

The Standard Student Identification Method seeks to establish a simple framework by which FSA and Delivery Partners can consistently identify students/borrowers, across all phases of the Student Aid Lifecycle.

High Level Requirements

- Consistently and systematically link customer records across the FSA enterprise.
- Support changes and updates to key customer attributes (e.g., updates to SSN, First Name, Last Name, DOB.)
- Ensure student privacy protection; minimize unauthorized/unauthenticated access to student data.
- System identification requirements should not prevent valid customers from receiving aid or progressing through the repayment phase (e.g., deferments, rehabilitations, consolidations.)



SSIM Solution Summary



The Standard Student Identification Method Core Team developed a <u>Three-Pronged Solution</u>.

Leverages effective, proven identifier solutions already being used in some parts of the FSA lifecycle. Roll-out of these tools and processes consistently shall tighten controls and improve data integrity/consistency.

- 1. Primary Identifier Verification with the Matching Algorithm
- 2. Additional SSA Verification
- 3. Consistent Exception and Change Processing



SSIM Matching Algorithm Summary



What is the "identifier" if using a matching algorithm?

- The matching algorithm requires a combination of data fields common to all systems.
- The primary identifier is the Social Security Number, but it will be verified through enterprise-wide business rules and tolerances with additional data fields: First Name, Date of Birth, and Last Name.

Why a matching algorithm?

- By employing a matching algorithm, or business rules, FSA systems can consistently identify customers throughout internal data exchange and external data acceptance.
- The use of this algorithm is a proven practice within FSA internal and external data exchange (as well as other agencies and financial institutions).
- Requires data already existing in FSA systems.
- Provides flexibility in implementation.

Matching Algorithm Rules



The matching algorithm will be a series of 4 comparisons of identifying data. Any one successful comparison constitutes a successful match.

Comparison	SSN	First Name	Date of Birth	Last Name
1 st SSN, First Name, and DOB	Current SSNs must match exactly on all 9 digits of the SSN on the student record.	3 of the first 4 significant characters of the first name must match in sequence* (in current or history), or alias matches exactly. Names of 3 characters or less must match exactly.	Year matches exactly; or Year matches plus or minus one, with month matching exactly; or Year matches plus or minus ten, with month and day matching exactly; or Date is an acceptable plug date	N/A
2 nd Transposed First and Last Names	Current SSNs must match exactly on all 9 digits of the SSN on the student record.	Three of the first four significant characters of last name on incoming record must match in sequence (in current or history), the first name on the receiving record. or alias matches exactly. Names of 3 characters or less must match exactly.	Year matches exactly; or Year matches plus or minus one, with month matching exactly; or Year matches plus or minus ten, with month and day matching exactly; or Date is an acceptable plug date	N/A

Matching Algorithm Rules (cont'd)

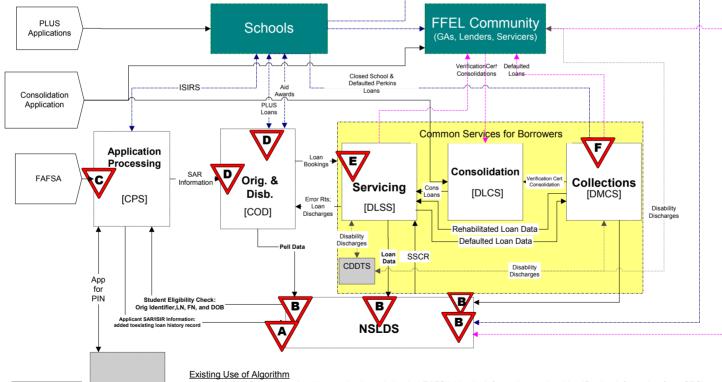


Comparison	SSN	First Name	Date of Birth	Last Name
3 rd First Initial Provided for First Name w/ exact DOB	Current SSNs must match exactly on all 9 digits of the SSN on the student record.	First name begins with same letter as first initial (a name that is an initial only or an initial followed by a period, not a comma).	Day, Month, and Year Match Exactly	N/A
4 th First Initial Provided for First Name w/ check on Last Name	Current SSNs must match exactly on all 9 digits of the SSN on the student record.	First character of first name matches first character of first name or first initial (current or history).	Year matches exactly; or Year matches plus or minus one, with month matching exactly; or Year matches plus or minus ten, with month and day matching exactly; or Date is an acceptable plug date	Five of first seven significant characters of last name match in sequence (current or history). If fewer than five characters, all characters must match.



Recommended Matching Algorithm Use





- NSLDS runs the algorithm to check newly loaded FAFSA identity information against identification information from CPS;
- B. NSLDS runs the matching algorithm for all new loan information entering NSLDS; Suggested New Use of Algorithm

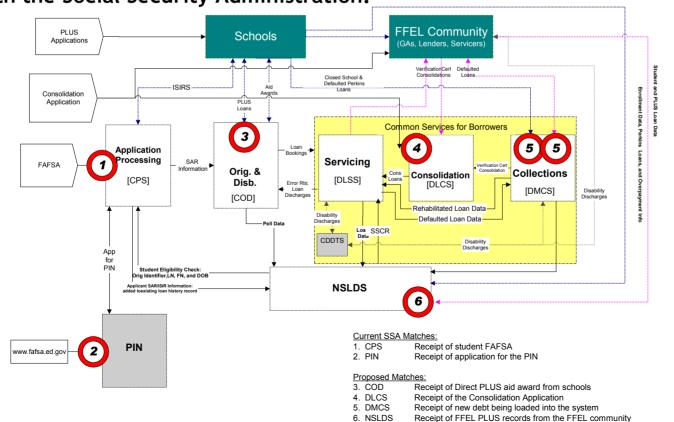
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- C. CPS and PIN run the matching algorithm against their own databases when receiving new applications;
- D. COD runs the matching algorithm to verify the CPS AAR and the COD Aid Award record are the same identity in COD:
- E. DLSS (CSB) runs the matching algorithm to match records received from COD, DLCS, and DMCS with those existing in DLSS;
 - DMCS (CSB) runs the matching algorithm to match debts received from DLSS, Schools, or FFEL community with those existing in DMCS;



Recommended SSA Identification Match







Exceptions and Change Processing



Appropriate communication of changes and corrections to identifier data will be determined by the customer's point in the lifecycle and the nature of the change.

- SSN changes will be communicated to all systems, regardless of lifecycle stage.
- Name and DOB changes will be communicated forward through the lifecycle, and backwards as business needs require.

Each FSA system will send, receive and process errors and corrections through dedicated resources.



Feedback and Questions



- What are your impressions of the proposed solution?
- What identity-related data quality issues do you experience?
- Have you had successful resolutions to these problems?
- How would this solution impact identity-related data quality?
- What is your preferred method of communication with FSA regarding identity issues?



Data Strategy Next Steps



- Continue to collaborate with the FSA Business Integration Group regarding Target State
 Vision
- SSIM Continue with Implementation Strategy Phase
- Begin phased implementation





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Software Developers Conference



August 14-15, 2003

Crystal Gateway Marriott Arlington, VA



Minimum PC Requirements



Minimum Configuration – Current	Minimum Configuration – 1/1/2004
IBM or fully IBM-compatible PC	IBM or fully IBM-compatible PC
800MHz Pentium Processor or comparable	Intel Pentium 4 Processor – 2.80 GHZ / 533 MHZ
128 MB RAM	1 GB SDRAM
20 GB Hard Drive	80 GB Hard Drive
56Kbps Modem (that meets or is upgradeable to V.90 standard)	56Kbps Modem (that meets or is upgradeable to V.90 standard)
3.5"/1.44 MB Diskette Drive	3.5"/1.44 MB Diskette Drive

Minimum PC Requirements

Minimum Configuration – Current	Minimum Configuration – 1/1/2004
Monitor and video card capable of Super Video Graphics Adapter (SVGA) (800x600) resolution (small fonts only) or higher	Monitor and video card capable of Super Video Graphics Adapter (SVGA) (800x600) resolution (small fonts only) or higher
Windows 95 Keyboard with Microsoft compatible mouse	Windows 95 Keyboard with Microsoft compatible mouse
Laser printer capable of printing on standard paper (8.5" x 11")	Laser printer capable of printing on standard paper (8.5" x 11")
24x CD-ROM Drive or higher with sound board	48x CD-ROM Drive or higher with sound board (*Recommended CD-RW drive)

Download Times – All Downloads

Batch Size (Number of ISIRs)	Maximum Compressed Batch Size	Download Times (56 Kbps)	Download Times (DSL: 640 Kbps)	Download Times (T1: 1.5 Mbps)
Small (<254)	375 KB	< 2 Minutes *	8 Seconds	3 Seconds
Medium (255-3,000)	3.8 MB	< 14 Minutes *	35 Seconds	29 Seconds
Large (3,000-13,000)	18 MB	< 66 Minutes *	< 6 Minutes	< 3 Minutes
Very Large ** (30,000)	45 MB	< 150 Minutes	< 14 Minutes *	< 6 Minutes



Thank You!

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CPS Processing Change for 2004-2005



- FAFSA Changes
- EDExpress Changes
- CPS Processing Changes
- ISIR Record Layout Changes
- ISIR Datamart
- CPS Test System





FAFSA Changes

- Some formatting changes and improvements to instructions
- New, reworded, and reordered questions





Step One

- Question 13: Student's e-mail address
 - Moved from Step Six to Step One
 - 40 characters long, with pre-printed @ symbol
 - Explains how e-mail address will be used
- Question 31: New number for the "drug question"





Step Two

- Questions 43 45: Student's asset net worth questions reordered
 - Cash, savings, and checking
 - Real estate/investment net worth
 - Business/farm net worth





Step Four

- Added questions about students' parents
 - Questions 59 and 63: Parent's first name initial
 - Questions 60 and 64: Parent's date of birth
 - No longer ask "Age of older parent" question





Step Six

- Enrollment questions --
 - Moved from Step One
 - One question for all terms
 - Separate response for "Not sure"





Renewal FAFSA

- Includes changes made to paper FAFSA
- Will roll forward 2003-04 FAFSA questions --
 - Will pre-print all school codes on transaction used to create the Renewal FAFSA
 - Will pre-print housing plans for each school code listed
 - Enrollment status questions will be converted
 - If any question = Full time, pre-print as full time
 - Otherwise, leave question blank
 - Parent's Marital Status Date guestion



Renewal FAFSA

- Will no longer pre-print income fields from previous year's FAFSA for students who qualified for Automatic Zero EFC
- Will not roll forward parents' SSN and last name information





EDExpress Changes

- In 2004-05, EDExpress will interface directly with FAA Access to CPS Online through an embedded browser
 - Clicking on the FAFSA Tab in EDExpress will take you to FAA Access Application Entry
 - All application and correction entry will be done in FAA Access



EDExpress Changes

- All Application Processing functionality still available in EDExpress
 - ISIR Import/ISIR print
 - ISIR Review tab
 - List-Processed ISIRs
 - NSLDS Print, File Format/External Export





CPS Processing Changes SSA Match

- SSN match expanded to include dependent applicants' parents
 - Will not send parent SSN if same as student's
 - Will use same match flag results as students





SSA Match cont.

- Applicants whose parent has SSA Date of Death (Match Flag = 5) will receive a SAR comment instead of being rejected
- Parents allowed to change SSN, even if SSA gave clean match flag of '4'





Rejects

- New rejects for missing parent SSN, last name, first initial, and DOB
 - Reject 6 Father's SSN not on SSA database (non-verifiable)
 - Reject 7 Mother's SSN not on SSA database (non-verifiable)
 - Reject S Father's DOB not matched on SSA database (verifiable)
 - Reject T Mother's DOB not matched on SSA database (verifiable)





Rejects cont.

- Added rejects for dependent students
 - Reject 12: If taxes paid amount is greater than or equal to AGI (non-verifiable reject)
 - Reject G: If taxes paid amount is less than AGI, but greater than 40% of AGI (verifiable reject)





Warning Edits

- New warning comment code for paper filers who reported parent's marital status as single, but provided two parent SSNs
- CPS re-engineered to be a Multi-Year Applicant Database (MYAD) so it can perform cross-year edits to detect possible inconsistencies across application years



EFC Formula

Only change is inflation updates to offsets





ISIR Record Changes

- Draft ISIR record layout available on IFAP (http://ifap.ed.gov)
- ISIR layout will follow order of paper FAFSA questions





- New Data Source/Data Type codes with alpha-numeric values
 - Data Source
 - 1 = Electronic
 - 2 = Student Web
 - 3 = FAA Access
 - 4 = Paper
 - 5 = CPS
 - 6 = FSAIC





Data Type

A = Application

B = Spanish Application

C = Correction

E = EZ FAFSA

F = EZ FAFSA Spanish

G = EZ FAFSA Renewal

H = EZ FAFSA Correction

J = Corr. Application

K = Corr. Appl. Spanish

M = DHS Sec. Conf.

N = NSLDS Postscreening

R = Renewal Application

V = Verification Corr.





ISIR Record cont.

- Will include parent SSN match flag results
- New flag indicates whether transaction is result of address or e-mail address change only
- Reject G override added





ISIR Record cont.

- Verification Tracking Flag
 - Expanded to 4 characters
 - Higher numbers continue to have higher priority





ISIR Record cont.

- New values for Multi School Code Flags
 - Still used to determine which schools get ISIR
 - Will also indicate the type of ISIR for each school





ISIR Datamart

- ISIR Datamart will be implemented on Jan. 2, 2004
- Will store 2004-05 ISIR data for retrieval and distribution to authorized users
- New feature in FAA Access to CPS Online allows users to request ISIRs from Datamart



- Options for receiving ISIRs ---
 - Daily
 - By request
- Sign up through Participation Management System
 - Default is daily receipt (like current system)
 - May change option at any time
 - Users who select daily receipt can also use Datamart to request ISIRs





Query Options for

- SSN/Name ID
- Date range for receipt date or processed date
- Transaction number: first, last, all, specific, or greater than X
- Institution code
- Grade level

Retrieving ISIRs

- Dependency status
- Eligibility status
- State of legal residence or state of college
- EFC range
- Verification status
- Veteran status
- Combination of these fields





- DPA has authority to run queries
- Queries can be set up to run on demand or for a future date
- Query must be completed before next query can be submitted
- Last query entered is displayed when user returns to FAA Access
- No limit on requesting same ISIR multiple times





- As queries run against Datamart, files of requested ISIRs generated
- Files loaded to SAIG under separate message class
- Files of requested ISIRs must be retrieved within 14 calendar days





- Certain ISIRs automatically "pushed" regardless of option selected by institution
 - EFC changes
 - SAR C Code changes
 - System-generated transactions -
 - NSLDS post-screening
 - DHS automated secondary confirmation
 - Reprocessing





- Schools must look at all "pushed" ISIRs
- School must request ISIRs for all enrolled students
- Datamart will be used for YTD and FDR requests





Message Classes

- Current ISIR message classes will be replaced with three new message classes
 - ISDF05OP Daily regular ISIRs
 - ISRF05OP Requested ISIRs
 - ISGF05OP CPS Pushed ISIRs





- Types of Message Classes a destination point will receive:
 - Daily automatic option
 - Regular
 - CPS pushed ISIRs
 - ISIRs requested through Datamart
 - Requested
 - CPS pushed ISIRs





Specifications

- Software Developer Specifications (NAS Specifications) - draft will be posted to IFAP by the end of August
- Updates will be made as needed most likely in October or November





CPS Test System

- Is a mechanism for you to ensure your system meets the specifications for interfacing with the CPS and for calculating correct results
- Allows you to
 - test applications and corrections
 - receive ISIR data





CPS Test System

- Available November 24, 2003 through end of processing cycle
- User Guide will be posted to IFAP in early November
- Message will be issued when test system goes live for your testing



CPS Test System

- Test files will be available in early November
- Separate input and output files will be posted for testing specifications





CPS Test System

Remember - CPS is still in test until SFA accepts system and production starts on January 2, 2004





We appreciate your feedback and comments.

Phone: 1-800-330-5947

Email: cpswan@ncs.com



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Thank You!

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COD Processing and Changes for 2004-2005

Software Developer's Conference August 14-15, 2003 Arlington, VA



Objectives



- Processing Statistics
- What's Planned for 2004-2005
 - Processing Changes
 - Reports
 - Message Classes
 - Record Layouts
 - Edits
- Re-Cap of Changes for 2004-2005



Common Record Processing YTD - As of August 5, 2003



Accepted

195,224

816,351

642,120

843,331

2.5 million

Rejected

79,228

26,477

18,257

56,761

180,723

TOTAL

274,452

842,828

660,377

907,211

2.7 million

Direct Loan

PLUS

Direct Loan

Subsidized

Direct Loan

Unsubsidized

Pell

TOTAL

Received

275,695

843,177

661,947

907,511

2.7 million

Common Record Processing YTD - As of August 5, 2003

Accepted

63,036

363,709

291,867

360,857

1.1 million

Rejected

4,511

39,383

27,102

38,527

109,523

TOTAL

67,547

403,092

318,969

411,214

1.2 million

Direct Loan

PLUS

Direct Loan

Subsidized

Direct Loan

Unsubsidized

Pell

TOTAL

Received

69,260

407,180

320,904

418,207

1.2 million



What's Planned for 2004-2005



What's Planned for 2004-2005



- The COD System will continue to accept Phase-In Participant fixed-length, flat file records for 2004-2005
- All schools will be required to process as Full Participants in 2005-2006



COD Technical Reference for 2004-2005



- The 2004-2005 COD Technical Reference will contain volumes for Full Participants, Pell Phase-in Participants, and Direct Loan Phase-In Participants
- The 2004-2005 COD Technical Reference August 2003 Draft contains 2004-2005 record layouts, message classes, schema, and edits
- Updated version of the 2004-2005 COD Technical Reference will be published in November 2003 and will include implementation guides and appendices
- COD Technical Reference change pages will be published quarterly as needed

COD Technical Reference Beta Review



- COD will conduct a Beta Review of the November 2003 release of the 2004-2005 Technical Reference
- Schools/Vendors interested in participating in the beta review should send an email to CODSupport@acs-inc.com with the Subject: COD Tech Ref Beta Review. Please include your name, institution/company name, phone number, and email address
- Drafts of the Technical Reference will be sent to interested parties in late September for review with comments due back to CODsupport@acs-inc.com by mid-October







- COD will accept and process Full Participant Campus-Based award and disbursement data (Federal Work Study, Perkins Loans, FSEOG) for the 03-04 and 04-05 award years and forward
- Full Participants can submit Campus-Based data to COD via the COD web site and the Common Record
- Campus-Based award and disbursement data will be viewable on the COD web site



- - COD will perform CPS matching on Campus-Based data
 - Receipts and responses on Campus-Based data will be returned to facilitate the creation or modification of Campus-Based financial information
 - Reports will NOT be generated for Campus-Based aid
 - COD will edit on Campus-Based Document, Entity, Person, Award, Award Information, and Disbursements data. Returned edits will be similar to those used for Direct Loans. Edits applicable to Campus-Based data are indicated by 'CB' in the Award Type Affected column of Volume II, Section 4 - Full Participants in the August 2003 COD Technical Reference



- Anticipated Disbursement information is required on initial submission of all Direct Loan awards for both Full and Phase-In Participants
 - The sum of the anticipated and actual disbursements must be equal to the Award Amount
 - All anticipated and actual disbursements must be reported when establishing an award
 - If any disbursements reject when establishing the award, the entire award will reject
 - If the sum of the disbursement information does not equal the award amount, the award will be rejected

- - COD will automatically recalculate the anticipated disbursements when a change to the Direct Loan Award Amount is received
 - Recalculation of anticipated disbursements occurs when:
 - A school submits a decrease to an award amount
 - Only anticipated disbursements exist on the COD System
 - The new award amount is less than anticipated disbursements
 - Recalculation will begin with the highest disbursement number
 - If actual disbursements exist and the new award amount is not less than the sum of the actual disbursements anticipated disbursements will not be recalculated (Edit 41)



- The Direct Loan Program will continue to <u>NOT</u> process pennies
- The Common Record allows pennies to be reported in the <AwardAmount> tag
- If pennies are submitted in <AwardAmount>, COD will truncate the cents to the right of the decimal
- COD will accept the award amount and will not store or edit on the included pennies





Report Changes for 2004-2005



Report Changes for 2004-2005



- The Pell Verification Status Report will contain those students selected for verification by CPS that the COD System has an actual disbursement on file but for whom the school has not reported a verification status of 'V' or 'S'
- The Pell Verification Status Report will be pushed monthly to schools via their SAIG mailbox
- QA schools will have the option to be excluded from receiving this report



Report Changes for 2004-2005



- A Pell POP Report will list those students for whom COD has accepted an actual disbursement and who are:
 - In a POP situation within the last 30 days
 - In a POP situation and have negative disbursements
 - No longer in a POP situation
- The Pell POP Report will be pushed to schools monthly via their SAIG mailbox
- The report will also be available via the COD web site and through Pell data request functionality





Message Class Changes for 2004-2005



Message Class Changes for 2004-2005



- Enhanced message class functionality for 2004-2005 provides Full Participants with specific message class options that they can choose to send or receive data to COD. Message class options include specificity by:
 - Program
 - Award Year
 - Program and Award Year
 - Generic (e.g. COMRECIN, COMRECOP)
- The OP message class for the COD batch response will correspond to the IN message class the school used to send the batch to COD



Message Class Changes for 2004-2005



Each System Generated document type will be assigned its own message class for Full Participants

> **Booking Notification** Credit Decision Override Negative Disbursement Payment to Servicing **Promissory Note**

2004-2005

CRBN05OP

CRCO05OP

CRND05OP

CRPS05OP

CRPN05OP



Message Class Changes for 2004-2005



- Receipt message classes generated by COD will mirror the message class used by the school to submit data to COD
- Receipt message class will vary depending on the presence of a cycle year indicator in the IN message class



Message Class Changes for 2004-2005



Generic

Specific

Year Year and Program Specific

Program Specific

IN Message Class

OP Message Class

Receipts

COMRECIN	CRAA05IN	CRPA05IN	CRPAMYIN
		CRDA05IN	CRDAMYIN
		CRCB05IN	CRCAMYIN
COMRECOP	CRAR05OP	CRPA05OP	CRPRMYOP
		CRDA05OP	CRDRMYOP
		CRCA05OP	CRCRMYOP
COMRECOP	CRRC05OP		
		CRRC05OP	COMRECOP
			SALE LAND







- The following data elements will not be required on the Common Record for the 2004-2005 Award Year and subsequent years:
 - <AcademicCalendarCode>
 - <PaymentMethodologyCode>
 - < Weeks Used Calculate>
 - <WeeksProgramAcademicYear>
 - <HoursAwardYear>
 - <HoursProgramAcademicYear>





- If a Full Participant school submits data in these tags, COD will not edit or store the data and will not return these tags on a Full Response
- These tags will continue to be stored for Phase-In Participants and will be returned in the Origination Acknowledgement





- The Direct Loan Rebuild file will include additional Common Record elements in order to provide necessary information to Full Participants
- Common Record elements include:
 - <DisbursementReleaseIndicator> (<PaymentTrigger>)
 - <PreviousSequenceNumber>
 - <CPSTransactionNumber>
 - <EndorserAmount>
 - <DisbursementDate>





- A <CPSVerificationIndicator> tag will be added to the Response block of the Common Record
- <CPSVerificationIndicator> indicates whether a student has been selected by CPS for verification this award year on any transaction number
- CPSVerificationIndicator> will be returned on Pell actual disbursements if the student was selected for verification on any CPS transaction number and the school did not report 'V' or 'S'

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- A <HighestCPSTransactionNumber> tag will be added to the Response block of the Common Record
- <HighestCPSTransactionNumber> indicates the highest CPS transaction number for the student during this award year
- <HighestCPSTransactionNumber> will be returned on Pell actual disbursements if a CPS transaction number higher than the one reported by the school exists







- Edit 116 Warning Edit
 - Returned if the school submitted a change to a student identifier and either the award year submitted on the change record is lower than the highest award year for the student <u>OR</u> the CPS transaction number on the change record is lower than the highest transaction number for that award year for that student
- Edit 116 is a warning edit that indicates that COD has processed the record but that the SSN, Date of Birth, and/or Last Name have not been updated by the COD System
- Edit 116 applies to Full Participants and Pell Phase-In Participants (Edit 398)





- Edit 117 Reject Edit
 - If the sum of the disbursement information does not equal the award amount <u>OR</u> if any disbursements reject, the award will be rejected
 - Edit applies to Direct Loan Full Participants only





- Edit 118 Warning Edit
 - If only anticipated disbursements exist for the award and the new award amount is less than the anticipated disbursements, the COD System will reduce the sum of the anticipated disbursements to equal the accepted award amount change
 - Edit applies to Direct Loan Full Participants only





- Edit 119 Warning Edit
 - If the sum of the actual disbursements is \$0, the changed award amount is \$0, and the sum of the anticipated disbursements is greater than \$0, the COD System will reduce anticipated disbursements to \$0 to allow loan inactivation
 - Edit applies to Direct Loan Full Participants only





Re-Cap of Changes for 2004-2005



Re-Cap of Changes for 2004-2005



- COD will continue to process Phase-In Participant fixed-length files through the 2004-2005 Award Year
- The updated 2004-2005 COD Technical Reference will be published in November 2003
- Processing Changes
 - COD recalculation of anticipated disbursements on existing Direct Loan awards
 - Anticipated disbursement information required when establishing a Direct Loan award
 - Pennies will not be processed in the Direct Loan Program
 - COD will accept and process Campus-Based data for the 2003-2004 award year and forward



Re-Cap of Changes for 2004-2005



- Reports
 - Pell Verification Status Report
 - Pell POP Report
- Message Classes
 - Increased specificity in message class options
- Record Layouts
 - Elimination of some Common Record elements
 - Additional Common Record elements included on Direct Loan Rebuild file
 - Two new tags added to the Common Record Response block
- Edits
 - New edits 116, 117, 118, and 119



COD Timeline



- 2004 2005 Development Schedule:
 - Requirements Complete
 - Design Complete
 - Development Complete
 - Testing Complete
 - School/Vendor Testing
 - System Start Up

June 2003

August 2003

November 2003

February 2004

February 2004

March 2004





Questions





Thank You!

Lori Clemmensen

Contact: codsupport@acs-inc.com

