FY09 School Finance Changes
Supporting Document

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Revision Log

All revisions to this supporting document will be included in this log. The initial draft document will be numbered v0.01 and incremented when revisions are made. The document that is approved will be v1.0.

Revision	Date	Description	Name
1.0	7/23/08	Published Supporting Document (Derived from Internal IT Project Requirements Document for SAIS FY09 Changes phase 3.2)	Toby Koenig

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1 Purpose

The purpose of this document is to summarize SAIS changes implemented as part of ADE IT's FY09 SAIS Changes Phase 3.2 project, per the request of ADE School Finance.

2 Dependencies, Risks, and Issues

2.1 Dependencies

2.2 Risks

2.2.1 House Bill 2816 is currently being considered by the State of Arizona House of Representatives. House bill 2816 has the effect of changing back TAPBI schools to submit minutes of attendance and be funded for any membership day within the year (not requiring use of calendars). If passed, several business rule modifications and system changes will be required in the near future.

2.2.2 A risk has been identified regarding creation of an ADE Override invalidation process. Several SMS vendors routinely delete and refresh enrollment and membership transactions from SAIS. Each time this occurs, a new membership ID is created. Because the flag will need to be associated to a membership id, SMS data refreshes will cause this ADE Override flag to be reset each time a record is deleted and recreated. School Finance is aware of this limitation, and will review and reset any flags as part of their end of year process. ADE Data services may be requested to provide SF a report of all ADE overrides set over the Fiscal Year.

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Note: These "Out of Scope" items will be handled as a separate project/document set (SAIS FY09 Changes Phase 3.3, currently under analysis and to be implemented by End of Calendar Year 2008).

4 Security

ADE builds Web applications to be compliant with Open Web Application Security Project (OWASP) standards. OWASP endeavors to assist organizations to develop and maintain applications that can be trusted. Among the security features incorporated into ADE's applications are the following:

4.1.1 Invalidated Input

4.1.1.1 Information from web requests is not validated before being used by a web application. Attackers can use these flaws to attack backend components through a web application.

4.1.2 Broken Access Control

4.1.2.1 Restrictions on what authenticated users are allowed to do are not properly enforced. Attackers can exploit these flaws to access other users' accounts, view sensitive files, or use unauthorized functions.

4.1.3 Broken Authentication and Session Management

4.1.3.1 Account credentials and session tokens are not properly protected. Attackers that can compromise passwords, keys, session cookies, or other tokens can defeat authentication restrictions and assume other users' identities.

4.1.4 Cross Site Scripting

4.1.4.1 The web application can be used as a mechanism to transport an attack to an end user's browser. A successful attack can disclose the end user's session token, attack the local machine, or spoof content to fool the user. Applications must not be able to intrude on the application without logging on as an authorized user.

4.1.5 Buffer Overflow

4.1.5.1 Web application components in some languages that do not properly validate input can be crashed and, in some cases, used to take control of a process. These components can include CGI, libraries, drivers, and web application server components.

4.1.6 Injection Flaws

4.1.6.1 Web applications pass parameters when they access external systems or the local operating system. If an attacker can embed malicious commands in these parameters, the external system may execute those commands on behalf of the web application.

4.1.7 Improper Error Handling

4.1.7.1 Error conditions that occur during normal operation are not handled properly. If an attacker can cause errors to occur that the web application does not handle, they can gain detailed system information, deny service, cause security mechanisms to fail, or crash the server.

4.1.8 Log On / Access

4.1.8.1 Users will be required to log in every time they use the application. The ADE Security component of Common Logon defines the security standards that apply to the application access as does ADE Acceptable Use policy. Only users that are authorized for access are granted permission to log in. The ability to read and/ or write data is governed by the user role. Each user is assigned their own user code / password combination to gain access to the application. Passwords are meant to be used only by individual users. Passwords are neither "borrowed" from another user nor to be shared with others. Any persons who need access to the ADE secure systems should gain that access only by using their own password. The ADE Acceptable Use policy can be located at the following link: https://www.azed.gov/mis/aup.htm

4.1.9 Persistent Cookies

4.1.9.1 The application may not be opened using a "cookie" stored from a previous logon session.

4.1.10 Secure Socket Layer (SSL)

4.1.10.1 Sensitive information exchanged over the public internet must remain secure.

4.1.11 Log Out

4.1.11.1 The application logs out the users as soon as they navigate outside the application from a session. The user must logon again to return to the application.

4.1.12 Inactivity Disconnect

4.1.12.1 If the application remains idle for a pre-determined amount of time, the user will be disconnected from the logon session and must log in again when ready to continue utilizing the Web features.

4.1.13 Simultaneous Logins

4.1.13.1 A user is prevented from logging on to the application more than once at any given time.

4.1.14 Mask Developer Comments in Application Code

4.1.14.1 Comments written into the application programming code by a software programmer will not be readable will not be readable for a General User.

4.1.15 Encrypt Connect Information

4.1.15.1 The application does not provide information to the general user that identifies where the application data is stored.

4.1.16 Database Audit Log

4.1.16.1 The application provides historical information how every record has been changed, who initialed the change and when the change occurred.

4.1.17 Administrator Passwords

4.1.17.1 The application requires that the Server Administrator uses a secure password.

5 Requirements (Public Overview)

All requirements are designated to be implemented FY09 forward and are fiscal year specific.

5.1 Accepting TAPBI Transactions

5.1.1 All validation rules that are now in affect regarding the acceptance of non-TAPBI transaction records (membership and needs) shall be maintained and applied to TAPBI transaction records.

5.1.1.1 Membership Transactions:

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5.1.1.2.2 Student Assessment
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5.1.1.2.6 Support Program Participation
5.1.1.2.7 Initial IEP
5.1.1.2.8 Early Childhood Program Participation
5.1.1.2.9 Early Childhood Preschool Assessment

5.1.2 All TAPBI student records shall be treated as a standard school and have a Track Number of non-zero.

5.1.2.1 The TAPBI student transaction shall be rejected by the SAIS system if the record contains a track number value of zero.

5.1.2.1.1   The error message created when a TAPBI transaction is rejected for having a zero track number shall read, "Invalid or missing Track Number."
(-9007)

5.1.3   TAPBI student records (membership or needs) must have integrity checked against a school calendar. Any transactions submitted without an active calendar shall be rejected.

5.2 TAPBI Calendars

5.2.1   TAPBI schools must submit a school calendar to ADE via the "LEA Calendar" application available through common logon.

5.2.1.1   Each school year, school calendars must be submitted (by July 1st) and activated (by September 1st) by using the "LEA Calendar" common logon application.

5.2.1.2   These calendars shall be considered when determining the 40th and 100th day aggregation target dates for the parent entity.

5.3 200 Day Calendars

ARS 15-902.02 States: A school district governing board shall calculate its average daily membership on the two hundredth day of instruction if the school district elects to provide two hundred days of instruction. A school district that elects to provide two hundred days of instruction may calculate its budget based on an estimated average daily membership and may increase its base level by five per cent. A school district shall adjust its budget for the budget year based on any discrepancies between the estimated average daily membership for the previous year and the actual average daily membership on the two hundredth day of instruction for the previous year. A school district that elects to provide two hundred days of instruction shall ensure that the last day of instruction in any school year occurs before June 30.

5.3.1   All schools not designated as a "charter school" or "district sponsored charter school" shall be allowed to request usage of a 200 day calendar for funding purposes.

5.3.2   School calendars submitted with 200 or more schooldays, but not approved by ADE shall still be treated as a standard 180 day calendar.

5.3.3   Students with an enrollment at a ADE approved 200 day calendar school shall have ADM calculated based off a 200 day membership period, and shall not be limited to the first 100 days of membership as with 180 day calendar schools.

5.3.3.1   Since ADM for ADE approved 200 day calendars will be based off a 200 day membership period instead of 100, the first adjustment to the FTE will be made by dividing the submitted FTE in half.

5.3.3.1.1 Example: If a student is enrolled at school x for the entire calendar period (200 in session days), and has a submitted FTE of 1.0 and no concurrencies, the student would generate .5 adm per day. (40th Day=20 membership days, 100th Day=50 membership days, 200 = 100 membership days.)

5.4 Absence Reporting

5.4.1 All non-preschool students not attending an ADE designated "Alternative School" (including TAPBIs and Homebound Students) shall be required to report absences to SAIS (instead of minutes of attendance, or ATTMIN) for funding calculations.

5.4.2 Minutes of attendance (ATTMIN) transactions may continue to be submitted to SAIS for any non-homebound preschool student, or any student that attends an ADE designated "Alternative School."

5.4.2.1 All validation rules that are now in affect regarding the acceptance of preschool minutes of attendance transaction records (membership type) shall be maintained and applied, unless otherwise stated.

5.4.2.2 For non-homebound preschool students and those schools ADE has designated as an "Alternative School," the SAIS system shall allow ATTMIN transactions to be submitted.

5.4.2.2.1 For all other grades: Any ATTMIN transactions shall fail at import and integrity.

5.4.2.2.2 Any submitted ATTMIN transaction where none of the days within the reporting increment are "in session" shall fail at import and integrity.

5.4.2.3 SAIS Message Changes:

5.4.2.3.3 Modify -12019 to state: "Cannot submit attendance data for a student who IS NOT a ~~High School Student, a Disabled~~ Preschool ~~Student, or a homebound~~ student. Submit absence data instead."

5.4.3 Homebound students (including preschool) shall no longer submit minutes of attendance (ATTMIN).

5.4.4 Alternative School designations shall be handled through a school's Calendar.

5.5 Calculating TAPBI ADM

5.5.1 TAPBI memberships shall follow the same procedure for determining funding as any other membership type.

5.5.1.1 Only the first 100 "in session" days of a TAPBI school's calendar (with the exclusion of 200 day calendars) shall be considered as valid for funding purposes.

5.5.1.2 For schools with approved 200 day calendars: Only the first 200 "in session" days of a school's calendar shall be considered as valid for funding purposes.

5.6 Concurrency Overrides

Concurrent memberships are defined as memberships where enrollment days overlap.

5.6.1 All concurrent memberships between a district and charter shall continue to be treated as invalid by default. LEA's will continue to be required to validate these concurrent memberships using the SDDI Common Logon application before they are considered as proportional concurrent membership periods for funding purposes.

5.6.1.1 Enrollment periods that are not concurrent shall still receive funding as a single enrollment.

5.6.1.2 An example of the various scenarios can be found under 5.7.1 below.

5.6.1.3 Note: The Concurrency validations interface is found under the SDDI Application/Maintenance/Charter and Public (non-charter) Concurrencies link.

5.6.2 Any other concurrent membership shall continue to be treated as valid by default.

5.6.3 A new ADE concurrency override flag shall be added to SAIS. This override (or invalidation) will take precedence over any existing enrollment validation recorded by the LEA. Any enrollment (of <u>any</u> membership type) that is flagged with the new ADE override flag must be <u>excluded</u> from <u>concurrency</u> funding calculations.

5.6.3.1 Enrollment periods that are not concurrent shall still receive funding as a single enrollment.

5.6.3.2 An example of the various scenarios can be found under 5.7.1 below.

RISK: Several SMS vendors routinely delete and refresh enrollment and membership transactions from SAIS. Each time this occurs, a new membership ID is created. Because the flag will need to be associated to a membership id, SMS data refreshes will cause this ADE Override flag to be reset each time a record is deleted and recreated. School Finance is aware of this limitation, and will review and reset any flags as part of their end of year process. Data services may be requested to provide SF a report of all ADE overrides set over the Fiscal Year.

5.6.4 The existing "Charter and Public (non-charter) Concurrencies" interface that is available to LEAs shall include the following changes:

5.6.4.1 A new column shall be added to the right of the existing validation application's "Validated" column heading named "ADE Invalidated."

5.6.4.2 Each membership results row shall display an "x" for displaying if the ADE Override flag has been set. (Read only)

5.6.5 The following report shall be modified to include a value to be displayed for the ADE Override flag:

5.6.5.1 SDADMS80-1: Charter/Public Concurrencies Report

5.6.5.1.1 A new column named "ADE Invalidated" shall be added to show if a concurrent membership of any type has been invalidated by the new ADE override flag.

5.6.5.1.1.1 *The value should show "No" if no override record exists, or "Yes" if the membership has been marked as invalid by ADE.*

5.6.5.1.1.2 *Locate this column to the right of the existing "Validated" column.*

5.6.5.2 SDADMS80-2: Student Detail Concurrency Report

5.6.5.2.1 A new column named "Validated" shall be added to show if a charter/public (non-charter) concurrency is considered valid.

5.6.5.2.1.1 *This column shall function similarly to the existing "Validated" column in the SDADMS80-1 report, with the exception of showing "Valid" if the membership is not required to be validated by the LEA.*

5.6.5.2.1.2 *If the membership is required to be validated by the LEA but has not been LEA validated, "Not valid" shall be displayed as the validated value for this membership.*

5.6.5.2.1.3 *Locate this column to the right of the existing "School Type" column.*

5.6.5.2.2 A new column named "ADE Invalidated" shall be added to show if a concurrent membership of any type has been invalidated by the new ADE override flag.

5.6.5.2.2.1 *The value should show "No" if no override record exists, or "Yes" if the membership has been marked as invalid by ADE.*

5.6.5.2.2.2 *Locate this column to the right of the new "Validated" column.*

5.7 Validation Processing

5.7.1 Any validated concurrent membership shall be considered for apportionment unless it has been invalidated by ADE. ADM between two non-validated concurrencies shall be directed to the later enrollment, or apportioned when enrollment dates are equal.

Note: Any non-concurrent membership interval would still be funded regardless of invalidation.

Note: Any ADE Overrides (Invalidations) will have the same effect as a charter/non-charter concurrency that has not yet been validated by the LEA, and will take precedence over any LEA validation.

Example 1:

Student A attends charter school 1 with an enrollment date of 8/15/2008, and an FTE of 1.0. Student A also attends district school 2 with an enrollment date of 8/17/2008, and an FTE of 1.0.

Ex 1 - Scenario 1: If NEITHER school 1 nor school 2 validate this student's enrollment:

- School 1 will receive full funding for the student for 8/15/2008 and 8/16/2008 and then receive no further funding for this student.
- School 2 will receive full funding for this student from 8/17/2008 onwards.

Ex 1 - Scenario 2: If school 1 validates their membership for this student, but school 2 does not validate their membership:

- School 1 will receive full funding for the student from 8/15/2008 onwards.
- School 2 will receive no funding for this student.

Ex 1 - Scenario 3: If school 2 validates their membership for this student, and school 1 does not validate their membership:

- The same result will apply as in scenario 1 above…

Ex 1 - Scenario 4: If school 1 and school 2 validate their memberships for this student:

- School 1 would receive full funding for the student for 8/15/2008 and 8/16/2008
- School 1 would receive .5 of the funding from 8/17/2008 onwards.
- School 2 would receive .5 of the funding from 8/17/2008 onwards.

Ex 1 - Scenario 5: If school 1 sends in a withdrawal for this student for 8/16/2008:

- The student would no longer appear on the concurrency report or application and no funding split would need to occur.

Example 2:

Student A attends charter school 1 with an enrollment date of 8/17/2008, and an FTE of 1.0. Student A also attends district school 2 with an enrollment date of 8/17/2008, and an FTE of 1.0.

Ex 2 - Scenario 1: If NEITHER school 1 nor school 2 validate this student's enrollment:

- School 1 would receive .5 of the funding from 8/17/2008 onwards.

- School 2 would receive .5 of the funding from 8/17/2008 onwards.

Ex 2 - Scenario 2: If school 1 validates their membership for this student, but school 2 does not validate their membership:

- School 1 will receive full funding for the student from 8/17/2008 onwards.
- School 2 will receive no funding for this student.

Ex 2 - Scenario 3: If school 2 validates their membership for this student, and school 1 does not validate their membership:

- School 1 will receive no funding for this student.
- School 2 will receive full funding for the student from 8/17/2008 onwards.

Ex 2 - Scenario 4: If school 1 and school 2 validate their memberships for this student:

- School 1 would receive .5 of the funding from 8/17/2008 onwards.
- School 2 would receive .5 of the funding from 8/17/2008 onwards.

5.8   200th Day Aggregation

5.8.1   SAIS shall perform a manual 200th Day aggregation and calculation for any districts selected by the School Finance department.

5.9   Modification of SDADMS75

5.9.1   The SDADMS75 report shall be modified to show all membership intervals, even those with zero FTEs up to the end of the applicable membership period (40th, 100th, 200th, etc) or the enrollment withdrawal date.

5.9.2   A code signifying "adjusted FTE due to a previous enrollment" shall be added to the report footer as #6, and any membership records that have been adjusted due to previous enrollment(s) shall display the new code within the "Codes" column of the report.

6   Definition of Terms/Glossary

ADM - Average Daily Membership

ADA – Average Daily Attendance

TAPBI – Technology Assisted Project-Based Instruction Program

JTED – Joint Technological Education District

FTE – Full Time Equivalent

LEA – Local Educational Agency